

# ATTACHMENT BOOKLET

ORDINARY COUNCIL MEETING  
22 NOVEMBER 2023

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# COUNCIL AGENDA

## ORDINARY COUNCIL MEETING

30 August 2023

BOOK 1

LIVERPOOL  
CITY  
COUNCIL



FRANCIS GREENWAY CENTRE,  
170 GEORGE STREET,  
LIVERPOOL



You are hereby notified that an **Ordinary Council Meeting** of Liverpool City Council will be held at the **FRANCIS GREENWAY CENTRE, 170 GEORGE STREET, LIVERPOOL** on **Wednesday, 30 August 2023** commencing at 2.00pm. Doors to the Francis Greenway Centre will open at 1.50pm.

Liverpool City Council Meetings are livestreamed onto Council's website and remain on Council's website for a period of 12 months. If you have any enquiries, please contact Council and Executive Services on 8711 7441.

A handwritten signature in black ink, appearing to read "John Ajaka".

**Hon John Ajaka**  
CHIEF EXECUTIVE OFFICER

### **Statement of Ethical Obligations**

#### **Oath or Affirmation of Office**

In taking the Oath or Affirmation of Office, each Councillor has made a commitment to undertake the duties of the office of councillor in the best interests of the people of Liverpool and Liverpool City Council and that they will faithfully and impartially carry out the functions, powers, authorities and discretions vested in them under the Local Government Act 1993 or any other Act to the best of their ability and judgment.

#### **Conflicts of Interest**

A councillor who has a conflict of interest in any matter with which the council is concerned, and who is present at a meeting of the council when the matter is being considered, must disclose the interest and the nature of the interest to the meeting as soon as practicable. Both the disclosure and the nature of the interest must be recorded in the minutes of the Council meeting where the conflict of interest arises. Councillors should ensure that they are familiar with Parts 4 and 5 of the Code of Conduct in relation to their obligations to declare and manage conflicts of interests.

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## ORDER OF BUSINESS

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### Council in Closed Session

The following items are listed for consideration by Council in Closed Session with the public excluded, in accordance with the provisions of the Local Government Act 1993 as listed below:

- CONF 01 Proposed Acquisition of Lot 161 DP17134, 31 Rickard Road, Chipping Norton under the Moorebank Voluntary Acquisition Scheme

*Reason: Item CONF 01 is confidential pursuant to the provisions of s10A(2)(c) of the Local Government Act because it contains information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business.*

- CONF 02 Liverpool Access Committee Member Nominations 2023 and amendments to the Liverpool Access Committee Charter

*Reason: Item CONF 02 is confidential pursuant to the provisions of s10A(2)(a) of the Local Government Act because it contains personal matters concerning particular individuals (other than councillors).*

- CONF 03 Dedication of the section of 'old' Kurrajong Road at Prestons as public road in accordance with the Roads Act 1993

*Reason: Item CONF 03 is confidential pursuant to the provisions of s10A(2)(c) of the Local Government Act because it contains information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business.*

- CONF 04 Five (5) year approval to engage LinkedIn Learning as a library supplier

*Reason: Item CONF 04 is confidential pursuant to the provisions of s10A(2)(d i) of the Local Government Act because it contains commercial information of a confidential nature that would, if disclosed prejudice the commercial position of the person who supplied it.*

- CONF 05 Purchase of Lot 20 in Plan of Acquisition DP 1291309 (Part Lot 101 DP 1268824), 245 Wonga Road, Prestons for road widening

*Reason: Item CONF 05 is confidential pursuant to the provisions of s10A(2)(c) of the Local Government Act because it contains information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business.*

- CONF 06 West Invest Program - Procurement Exemption for Specialist Scheduling and Control Services

*Reason: Item CONF 06 is confidential pursuant to the provisions of s10A(2)(c) of the Local Government Act because it contains information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business.*

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## ORDER OF BUSINESS

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CONF 07 Liverpool Civic Place Early Education and Care Centre Cost Benefit Report

*Reason: Item CONF 07 is confidential pursuant to the provisions of s10A(2)(c) of the Local Government Act because it contains information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business.*

CONF 08 Closing and Transfer of a Temporary Public Road between Ninth Avenue and Estoc Street in Austral being Lots 47 & 48 in DP 1223299.

*Reason: Item CONF 08 is confidential pursuant to the provisions of s10A(2)(a) of the Local Government Act because it contains personal matters concerning particular individuals (other than councillors).*

CONF 09 Dedication of Part Lot 22 DP 1287246, 115 Croatia Avenue, Edmondson Park

*Reason: Item CONF 09 is confidential pursuant to the provisions of s10A(2)(c) of the Local Government Act because it contains information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business.*

CONF 10 Question with Notice - Cllr Rhodes - Clarification of Dates

*Reason: Item CONF 10 is confidential pursuant to the provisions of s10A(2)(g) of the Local Government Act because it contains advice concerning litigation, or advice that would otherwise be privileged from production in legal proceedings on the ground of legal professional privilege.*

CONF 11 Liverpool Civic Place Project Update **(to be provided in Confidential Addendum Book later this week)**

*Reason: Item CONF 11 is confidential pursuant to the provisions of s10A(2)(c) (d i) (d ii) of the Local Government Act because it contains information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business; AND commercial information of a confidential nature that would, if disclosed prejudice the commercial position of the person who supplied it; AND commercial information of a confidential nature that would, if disclosed confer a commercial advantage on a competitor of the Council.*

**Close**

<b>PLAN 01</b>	<b>Planning proposal to amend the Liverpool Local Environmental Plan 2008 at 93-145 Hoxton Park Road, 51 Maryvale Avenue &amp; 260 Memorial Avenue, Liverpool.</b>
<b>Strategic Objective</b>	Liveable, Sustainable, Resilient Deliver effective and efficient planning and high-quality design to provide best outcomes for a growing city
<b>File Ref</b>	190451.2023
<b>Report By</b>	Stephen Peterson - Senior Strategic Planner
<b>Approved By</b>	Lina Kakish - Director Planning & Compliance

## EXECUTIVE SUMMARY

In July 2022, Council received planning proposal submitted by Mecone on behalf of ABA Estate Pty Ltd, to amend development standards within the *Liverpool Local Environmental Plan 2008* (LLEP 2008), for land at 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue, Liverpool, to facilitate the development of six residential flat buildings, with a maximum of 6 storeys.

Figure 1 below indicates an aerial view of subject site. The allotments subject to the planning proposal are highlighted blue and the two lots outlined in red form the proposed vehicular access points for a future development on the subject allotments however do not form part of the request to amended development standards.

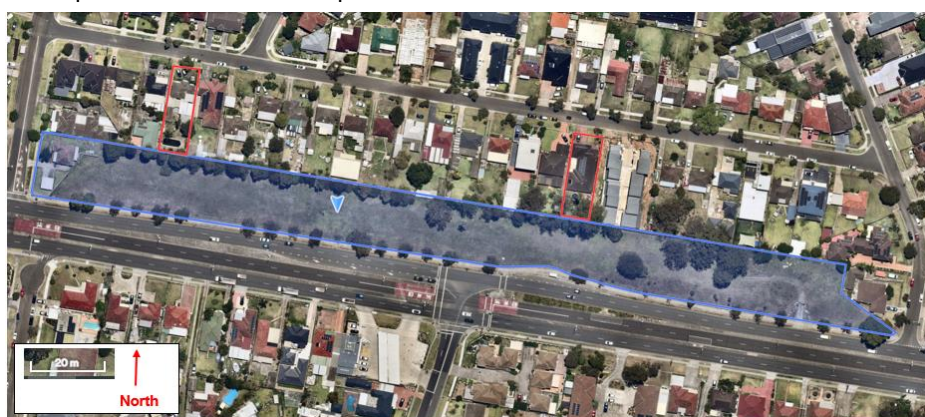


Figure 1: Aerial view of subject site. Source: Nearmap 18 January 2023.

The subject site is currently zoned R4 High Density Residential. The proposal as lodged sought to amend LLEP 2008 in the following manner:

1. Increase the maximum height of buildings from 15m to 21m (40% increase); and
2. Increase the floor space ratio control from 1:1 to 2:1 (100% increase).

Following review of the initial proposal by Council staff and consultation between Council staff, the proponent and landowners the proposed floor space ratio reviewed by the Local Planning Panel was reduced to 1.5:1 (50% increase) and the height of buildings was revised to be 20.5m (36.7% increase). To be consistent with other R4 zoned land within the Liverpool Local Government Area with a floor space ratio of 1.5:1, the maximum height of buildings has been amended post the Local Planning Panel meeting to be 21m (40% increase). In this regard and following recommendations from the Liverpool Local Planning Panel, the planning proposal is revised as follows:

1. Increase the maximum height of buildings from 15m to 21m (40% increase);
2. Increase the floor space ratio control from 1:1 to 1.5:1 (50% increase) and;
3. An amendment to Schedule 1 to allow for the land use of '*Retail Premises*' with a maximum gross floor area of 200m<sup>2</sup>.

The planning proposal is supported by concept architectural plans, a draft site specific Development Control Plan (DCP) and a Letter of Offer for a Voluntary Planning Agreement (VPA). The planning proposal was referred to the Liverpool Local Planning Panel (LLPP) meeting on 29 May 2023, where it was deemed to demonstrate strategic and site specific merit, in accordance with Council staff recommendation. Following the LLPP meeting, the planning proposal and supporting documentation was required to be updated to reflect the amended development standards.

It is recommended that Council notes the advice of the LLPP, supports in principle the planning proposal request and submit a planning proposal to DPE seeking a Gateway determination and public exhibition.

## **RECOMMENDATION**

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That Council:

1. Notes the advice of the Liverpool Local Planning Panel.
2. Endorses in principle the planning proposal request to amend development standards to increase the maximum height of buildings to 21m, increase the floor space ratio to 1.5:1 and include an amendment to Schedule 1 to allow for the land use of '*Retail Premises*' with a maximum gross floor area of 200m<sup>2</sup> at 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue, Liverpool.

3. Delegates to the CEO authority to prepare the formal planning proposal including any typographical or other editing amendments if required.
4. Forwards the planning proposal to the Department of Planning and Environment pursuant to Section 3.34 of the *Environmental Planning and Assessment Act 1979*, seeking a Gateway determination.
5. Endorses in principle the draft amendments of the Liverpool Development Control Plan 2008.
6. Delegates to the CEO Authority to negotiate a Voluntary Planning Agreement with the proponent, agree the terms of the offer with the proponent, and report back to Council the details of a draft VPA prior to exhibition of the planning proposal, consistent with the Council's Planning Agreements Policy.
7. Subject to Gateway determination and endorsement of the VPA, undertake community consultation for the planning proposal, VPA, and the site-specific Development Control Plan (DCP) in accordance with the conditions of the Gateway determination and the Liverpool Community Participation Plan 2022.
8. As part of the community consultation period, present the site-specific Development Control Plan to the Design Excellence Panel (DEP), in accordance with clause 15 of *Environmental Planning and Assessment Regulations 2021*.
9. Receives a further report on the outcomes of public exhibition and community consultation.

## **REPORT**

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### **The site**

The development site comprises 31 lots and the planning proposal relates to 29 lots which are located at 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue. The lots at 20 and 48 Dale Avenue (marked red in the image below) will only be used to provide access to the proposed development site, therefore are not subject to the planning proposal. The area of the total development site is approximately 14,889.23m<sup>2</sup>, with the planning proposal applying to approximately 13,498.03m<sup>2</sup> of land, referred to as the subject site. Refer to Figure 2 below.

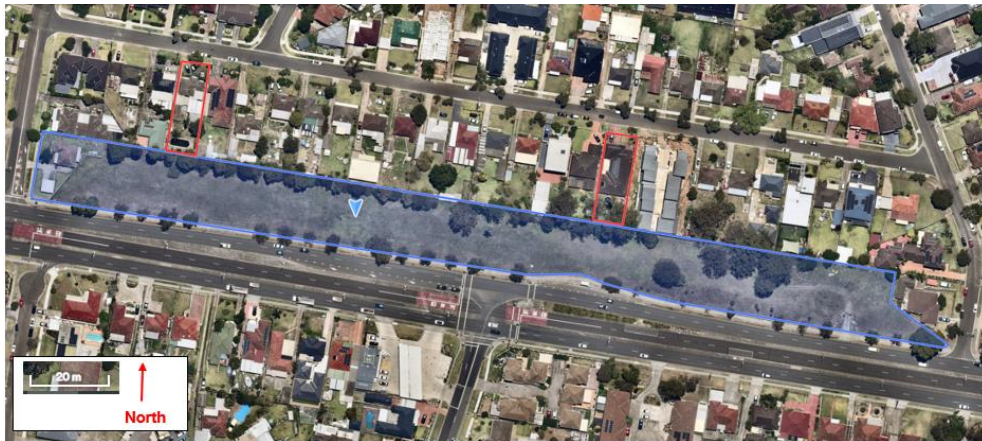


Figure 2: Aerial view of subject site, blue indicates land subject the planning proposal and red indicates proposed vehicular access. Source Nearmap: 18 January 2023.

The subject site has an approximate frontage of 440.09m to Hoxton Park Road, with a cross slope from east (93 Hoxton Park Road) to west (145 Hoxton Park Road) of approximately 8.4m.

With the exception of 260 Memorial Avenue and the proposed access sites (which contain dwellings and ancillary structures), the remaining allotments fronting Hoxton Park Road are vacant with the majority containing large mature trees (59 trees ranging in height from 5m to 23m) towards the rear boundary (north) and front boundary on Hoxton Park Road (south).



Figure 3: The site as viewed looking northwest on Hoxton Park Road. Source: Google Maps.

The subject site is currently zoned R4 High Density Residential, with a Floor Space Ratio (FSR) of 1:1, Height of Buildings (HOB) of 15m and Minimum Lot Size of 1,000sqm. It is noted

that the access sites, and the other adjoining sites to the north (currently containing low and medium density residential dwellings fronting Dale Street) are also zoned R4 High Density Residential. However, these sites have an FSR of 0.75:1 and HOB of 12m.

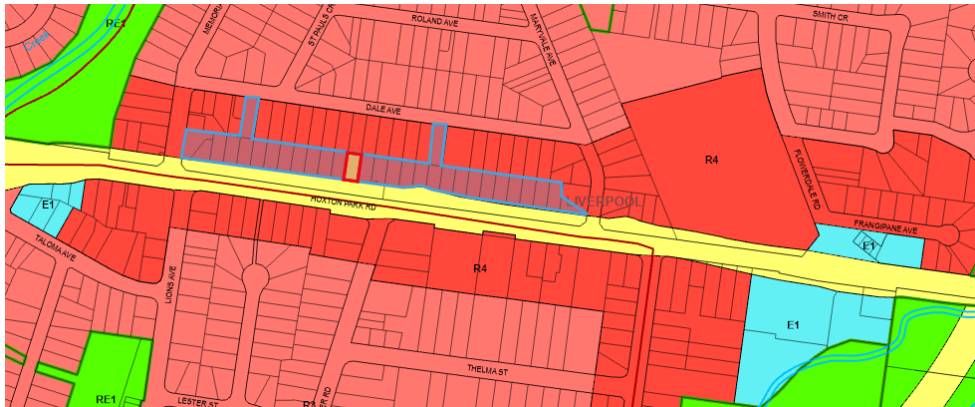


Figure 4: Land Use Zone Map, LLEP 2008.

### The Locality

The site is located in an area which is currently undergoing transition from low density residential to medium and high-density residential typologies, in accordance with the current R4 High Density Residential and R3 Medium Density Residential zones. A five story residential flat building is located to the east at 42-50 Hoxton Park Road and a 4 - 5 storey residential flat building located to the west at 153 Hoxton Park Road.

The site is located 3.2km east of the M7 Motorway northbound and southbound on ramps and 3.9km northwest of the M5 Motorway eastbound and westbound on ramps. The Liverpool CBD and Train Station are located approximately 2.2km to the east.

The site has a frontage to Hoxton Park Road, which is a major public transport corridor with multiple bus services providing frequent services into the Liverpool CBD and surrounding town centres, as well as the rapid bus T-Way service providing transport connection between Liverpool and Parramatta.

Due to existing traffic arrangements for westbound traffic on Hoxton Park Road, which does not permit right turns onto either Maryvale Avenue or Memorial Avenue at any given time, westbound vehicles are required to turn right approximately 270m to the east of the subject site from Hoxton Park Road onto Flowerdale Road.



Figure 5: Aerial view of subject site. Red line indicating the route of how vehicles travelling westbound on Hoxton Park Road are required to access the site on Dale Avenue.

### Background

Two pre-lodgment meetings were held with Council staff regarding a future planning proposal for the subject sites. Advice was provided by Council in December 2020 (seeking HOB of 18m and FSR of 2:1) and December 2021 (seeking HOB of 21m and FSR of 2:1). The proposal was lodged in July 2022 seeking a HOB of 21m and an FSR of 2:1.

Various meetings have been held between Council, the proponent and landowners and in this regard the proposal has been amended a number of times. This has included amendments to the concept architectural plans, the introduction of additional commercial uses, the submission of a draft site specific DCP, and the submission of a draft VPA Letter of Offer.

The proposal, as amended by Council, was referred to the LLPP in May 2023 nominating to:

- Increase the maximum HOB from 15m to 20.5m (36.7% increase); and
- Increase the FSR control from 1:1 to 1.5:1 (50% increase).

The LLPP supported Council's recommended reduced development standards as above and recommended that a Schedule 1 Additional Permitted Use clause be included to permit the use of small scale 'Retail' and 'Food and Drink premises' to service the precinct only, as the concept architectural plans indicate 19 ground floor commercial/neighbourhood shops between 67.5sqm and 187sqm.

### **Proposed Amendments to the Liverpool Local Environmental Plan 2008**

The current planning proposal request, amended post referral to the May 2023 Local Planning Panel meeting, seeks to amend LLEP 2008 in the following manner:

1. Increase the maximum height of buildings from 15m to 21m (40% increase);
2. Increase the floor space ratio control from 1:1 to 1.5:1 (50% increase); and
3. An amendment to Schedule 1 to allow for the land use of '*Retail premises*' with a maximum gross floor area of 200m<sup>2</sup>.

### **Planning Assessment**

The Local Planning Panel Report (**Attachment 2**) includes detailed assessment of the merits of the proposal against the District and Region Plans and the Department of Planning's 'Guide to Preparing Planning Proposals'.

#### Consistency with Strategies

The proposal has been assessed against the Region Plan (Greater Sydney Regional Plan - A Metropolis of Three Cities), District Plan (Western City District Plan) and relevant strategies including Council's adopted Local Strategic Planning Statement (LSPS) and the Liverpool Local Housing Strategy 2020.

The Local Planning Panel report outlines a detailed assessment against these strategies, and outlines that the planning proposal has strategic and site-specific merit and should proceed to a Gateway determination.

The proposal was found to be generally consistent with the relevant planning priorities contained within the LSPS, particularly Planning Priorities 1 and 2 regarding connectivity and Planning Priority 7 regarding Livability, as it is providing housing in the vicinity of the City Centre and along a major corridor.

#### Site Specific Development Control Plan (DCP), Arborist Report & Concept Architectural Plans

The planning proposal contains Concept Architectural Plans (**Attachment 5**) which demonstrate what a proposed development could entail.

The Local Planning Panel (LPP) recommended for an Arborist Report to be submitted at the planning proposal stage and that the site specific DCP include controls to ensure a future development on the subject site, including any basement, do not significantly impact upon the existing significant trees predominantly located towards the northern and southern (front and rear) setbacks.

An Arborist Report was submitted to Council post LPP meeting based on the latest concept architectural plans which demonstrate that the concept basement design exceeds the building envelope. The concept developments front and rear setbacks do not comply with the existing setback controls contained within part 3.7 of LDCP 2008 nor does a portion of the building separation comply with the required building separation as per the Apartment Design Guide (ADG).

The Arborist Report identifies a total of 64 trees on site which are predominantly located on the front (Southern Hoxton Park Road) frontage and rear (Northern elevation fronting residential allotments). Of these 64 trees, 26 trees are proposed to be removed and 28 trees are to be retained.

Of the 26 trees recommended to be removed and replaced, 20 trees are *Eucalyptus trees being either Grey Box, Spotted Gum or Forest Red Gum* trees ranging in height from 9m to 25m, in fair to good health and are only recommended to be removed and replaced due to the concept basement location.

The architectural plans submitted at the planning proposal stage are concept plans only. Any tree removal or variation to the existing controls within the ADG, existing controls including setback controls contained within LDCP 2008 or any variation to the site specific DCP will be subject to review with detailed plans at the development application stage either via a pre lodgment meeting, design excellence panel meeting or justification for review with a lodged development application.

The planning proposal is supported by a Site Specific Development Control Plan (**Attachment 6**) which was updated following the LPP meeting. This is to incorporate the advice of the LPP and to ensure that the proposed HOB and FSR development standards maintain amenity, including solar access, and privacy of the residential land to the rear (north) and vicinity.

Further the site specific DCP ensures that a future development on the subject site is designed to:

- Not significantly impact upon the streetscape;
- Minimises bulk and scale;
- Ensures security and safety of pedestrians and vehicles and ensures traffic impacts are minimised;
- Ensures a high level of amenity for future occupants of the subject site; and
- Ensures a future development including any basement on the subject site does not significantly impact upon the existing significant trees located towards the southern and northern boundaries and that tree retention is maximised.

#### Letter of Offer - Voluntary Planning Agreement

The planning proposal is supported by a Voluntary Planning Agreement (VPA) letter of offer. The VPA letter of offer nominates the following items to be negotiated with Council:

- 5% of residential accommodation provided on site to be affordable housing being a mix of 1, 2 and 3 bedroom apartments located on all levels of the proposed buildings and predominantly orientated towards the north and east with at least 1 allocated car space per affordable apartment. The affordable housing is to be dedicated to a registered community housing provider, which will manage the affordable apartments in perpetuity.
- The creation of two through-site pedestrian links secured by a pedestrian access easement. The ongoing maintenance of such easements are not to be the responsibility of Council.
- Upgrade of an existing bus stop in front of the site on Hoxton Park Road to meet Council and relevant disability standards for accessible public transport.
- Upgrade of an existing shared pedestrian/bicycle pathway within Hoxton Park Road (Between Memorial Avenue and Maryvale Avenue) with improved signage and line-marking.

The upgrade of the existing shared pedestrian/bicycle pathway within Hoxton Park Road and upgrade of the existing bus stop in front of the site on Hoxton Park Road are to be noted within the draft VPA. However, they should simply form part of a condition of consent for a future development application. The draft VPA agreement will be reported to Council and exhibited concurrently with the Planning Proposal post Gateway.

#### **Advice of the Liverpool Local Planning Panel**

Pursuant to Clause 2.19(1)(b) of the Environmental Planning and Assessment Act 1979, a planning proposal must be submitted to the Local Planning Panel (LPP) for their advice prior to consideration by the Council.

At its meeting on 29 May 2023, the Liverpool LPP considered the planning proposal request and agreed that the proposal demonstrates strategic and site-specific merit and supported the planning proposal proceeding to a Gateway determination.

Advice from the LLPP is at **Attachment 3**, in summary:

- The Panel considers that a site-specific DCP is critical to ensure that the site is developed in a form that minimizes bulk and scale when viewed from Hoxton Park Rd, conserves existing vegetation and minimizes impact on the amenity of the adjoining

low density residential development to the north. The Panel recommended that the Site Specific DCP be updated prior to the Council meeting to include the provisions outlined within the Panel report.

- Encourage consolidation with 49 Maryvale Avenue, and if consolidation occurs, consider vehicle access from Maryvale Avenue.
- The existing mature trees along the northern boundary of the site are an important feature of the site that must be largely retained in any redevelopment of the land.
- Permit small scale retail and food and drink premises on the site to encourage activation of the central community space within the site.

#### Updated documentation post Local Planning Panel Advice

At the Local Planning Panel meeting, a proposed height of buildings of 20.5m (36.7% increase) and a floor space ratio of 1.5:1 (50% increase) was considered. In order for the height of buildings to be consistent with other R4 zoned land within the Liverpool Local Government Area with a floor space ratio of 1.5:1, the maximum height of buildings has been amended post the Local Planning Panel meeting to be 21m (40% increase).

The Planning proposal documentation including inclusion of small scale retail and food and drink premises on the site, the Site Specific Development Control Plan & Concept Architectural Plans were updated following the LPP meeting. Additionally, an Arborist Report was submitted.

#### **Alternative Options for Development Uplift**

##### Current Opportunities

Currently, if a development proposes at least 20% of the gross floor area of a building to be used for the purposes of affordable housing, *State Environmental Planning Policy (Housing) 2021* (SEPP Housing 2021), permits a floor space ratio bonus above the permitted development standard for in-fill development. For sites with a FSR of 2.5:1 or less the FSR bonus is either:

- a. If at least 50% of the gross floor area of the building resulting from the development will be used for affordable housing—0.5:1, or
- b. If less than 50% of the gross floor area of the building will be used for affordable housing—Y:1,  
where—  
AH is the percentage of the gross floor area of the building that is used for affordable housing.  
 $Y = AH \div 100$

In this regard, based on the FSR development standard proposed as per the planning proposal, should a future development application nominate 50% of the development as affordable housing, an FSR of 2:1 would apply. If for example, a future development application nominates 30% of the development as affordable housing, an FSR of 1.8:1 would apply.

#### Future Opportunities

The State Government earlier this year announced new measures to boost the supply of affordable and social housing in NSW by way of proposed amendments including:

- Residential development valued at more than \$75 million will be eligible for a new state significant development (SSD) pathway, providing it includes at least 15 per cent of the total gross floor area as affordable housing; and
- Introduce a new floor space bonus of 30 per cent and a height bonus of 30 per cent for residential developments with at least 15 per cent affordable housing (Note: affordable housing gross floor area is required to be used for affordable housing purposes for a minimum period of 15 years).

If these changes are implemented by the State Government, an uplift from the planning proposal development standards from 20.5m to 26.65m for HOB and from 1.5:1 to 1.95:1 for FSR would apply on the site. It is noted that the above provisions under future opportunities are not currently implemented and that there is no commencement date announced.

Council staff have assessed the planning proposal in the context of the current planning legislative framework and have recommended it proceed to a Gateway determination. However, if these announced policy changes are enacted, an assessment of alternate outcomes should be made given the potential adverse impacts on neighbouring properties and the surrounding locality.

#### **Next Steps**

If Council supports the planning proposal request, a formal planning proposal will be prepared and submitted to the Department of Planning and Environment (DPE) seeking a Gateway determination.

Following a Gateway determination in support of the planning proposal, there will be public agency and community consultation in accordance with the Gateway determination and Councils Community Participation Plan. The Site-Specific DCP and VPA (once endorsed) will also be exhibited alongside the planning proposal. The DCP will also be referred to the Design Excellence Panel in accordance with clause 15 of environmental Planning and Assessment Regulations 2021.

Following consultation, a further report will be prepared for Council prior to proceeding with the making of any amendment to the LLEP 2008, LDCP 2008 and the VPA.

### Conclusion

It is considered that the planning proposal has sufficient strategic and site-specific merit to proceed. It is recommended that Council endorses the planning proposal to proceed to a Gateway determination.

### CONSIDERATIONS

<b>Economic</b>	Facilitate economic development.
<b>Environment</b>	Manage air, water, noise and chemical pollution. Enhance the environmental performance of buildings and homes.
<b>Social</b>	Regulate for a mix of housing types that responds to different population groups such as young families and older people.
<b>Civic Leadership</b>	Encourage the community to engage in Council initiatives and actions. Provide information about Council's services, roles and decision making processes.
<b>Legislative</b>	Environmental Planning and Assessment Act 1979.
<b>Risk</b>	The risk is deemed to be Low. If Council does not support the planning proposal request, there is a risk that the landowner will seek a review of Council's decision by the Sydney Western City Planning Panel.  The risk is considered within Council's risk appetite.

### ATTACHMENTS

1. Planning Proposal (Under separate cover)
2. Local Planning Panel Report 29 May 2023 (Under separate cover)
3. Final Liverpool Local Planning Panel Determination Minutes - 29th May 2023  
(Under separate cover)
4. Survey Plans (Under separate cover)
5. Concept Architectural Plans (Under separate cover)
6. Draft Site Specific DCP (Under separate cover)
7. VPA Letter of Offer (Under separate cover)
8. Aborist Report (Under separate cover)

9. Landscape Design Report (Under separate cover)
10. Acoustic Impact Assessment (Under separate cover)
11. Traffic Impact Assessment and Green Travel Plan (Under separate cover)
12. Proponents Traffic Consultant Response to RFI dated 24 February 2023  
(Under separate cover)
13. Addendum Traffic Statement - Response to LLPP Meeting (Under separate  
cover)
14. Social Impact Assessment (Under separate cover)
15. Operational Waste Management Plan (Under separate cover)
16. Preliminary Geotechnical Assessment (Under separate cover)
17. Preliminary Site Investigation (Under separate cover)
18. Desktop Flood Assessment (Under separate cover)
19. Quantity Surveyors Report (Under separate cover)
20. ASIC (Under separate cover) - **Confidential**



## MINUTES OF THE ORDINARY MEETING HELD ON 30 AUGUST 2023

### PRESENT:

Mayor Ned Mannoun  
 Councillor Ammoun  
 Councillor Goodman  
 Councillor Green  
 Councillor Hadid  
 Councillor Hagarty  
 Councillor Harle  
 Councillor Kaliyanda  
 Councillor Karnib (Online)  
 Councillor Macnaught  
 Councillor Rhodes  
 Hon John Ajaka, Chief Executive Officer  
 Mr Farooq Portelli, Director Corporate Support  
 Ms Tina Bono, Director Community & Lifestyle  
 Ms Lina Kakish, Director Planning & Compliance  
 Ms Michelle McIlvenny, Director Customer & Business Performance  
 Mr Shayne Mallard, Director City Futures  
 Mr Jason Breton, Director Operations  
 Mr David Galpin, General Counsel, Manager Governance, Legal and Procurement  
 Mr Vishwa Nadan, Chief Financial Officer  
 Mr Charles Wiafe, Principal Transport Planner (online)  
 Ms Jessica Saliba, Acting Manager Council and Executive Services  
 Ms Melissa Wray, Council and Executive Support Officer (minutes)

The meeting commenced at 2.00pm

Minutes of the Ordinary Council Meeting held on Wednesday, 30 August 2023 and confirmed on Wednesday, 27 September 2023

.....  
Chairperson

## 2

**STATEMENT REGARDING WEBCASTING  
OF MEETING**

The Mayor reminded everyone that in accordance with Council's Code of Meeting Practice (other than the Public Forum Section), the meeting is being livestreamed.

**ACKNOWLEDGMENT OF COUNTRY,  
PRAYER OF COUNCIL AND  
AFFIRMATION**

The prayer of the Council was read by Reverend Paul Mosiejczuk from Liverpool Baptist Church.

**NATIONAL ANTHEM**

The National Anthem was played at the meeting.

**COUNCILLORS ATTENDING REMOTELY**

Clr Karnib requested permission to attend the meeting via MS Teams.

**Motion:**

**Moved: Mayor Mannoun**

**Seconded: Clr Kaliyanda**

That Clr Karnib be granted permission to attend the meeting via MS Teams.

On being put to the meeting the motion was declared CARRIED.

**APOLOGIES**

Nil

Mayor Mannoun left the chamber at 2.50pm and Councillor Hadid, Deputy Mayor, became the chairperson.

#### **PLANNING & COMPLIANCE REPORTS**

**ITEM NO:**      PLAN 01  
**FILE NO:**      190451.2023  
**SUBJECT:**      Planning proposal to amend the Liverpool Local Environmental Plan 2008 at  
 93-145 Hoxton Park Road, 51 Maryvale Avenue & 260 Memorial Avenue,  
 Liverpool.

#### **COUNCIL DECISION**

**Motion:**                                      **Moved: Deputy Hadid**              **Seconded: Cllr Green**

That council defer this item and direct the CEO to consult with the community.

On being put to the meeting the motion was declared CARRIED.

Councillors voted unanimously for this motion.

Tuesday 12<sup>th</sup> September 2023

Attention.

Dear

As a long time resident of Liverpool , I  
Totally object to the detail of this Proposal based on the Traffic problems it  
will bring to our area , we already have a No Left Turn into Memorial Avenue  
off Hoxton Park Road from 6am till 10am Monday to Fridays [that needs to  
stay] , now the Developers what to overload Dale Avenue with more traffic  
that neither Dale Avenue or the Local area can possibly handle , it is now  
nearly impossible to navigate a very narrow Dale Avenue currently so just  
imagine the traffic chaos that this extra traffic will cause from this proposed  
development .

I am not Totally against this proposed housing development but believe it  
would be better serviced traffic wise by utilising the main entrance to this  
development thru an extension of extra lights being installed at the junction of  
Webster Road and Hoxton Park Road at the cost to the Developers and I will  
be taking this Proposal to our Local MP Paul Lynch for support

Yours Sincerely

ENTERED  
14 SEP 2023

Dear Sir,

I wish to voice my objection to the proposed development of 93-145 Hoxton Park Rd, 51 Dale Ave and 260 Memorial Ave.

My property, is on the corner of Memorial and Dale Avenues, I have lived here for sixty six years, and watched Liverpool, grow from a small town, to the overcrowded city it has become to-day.

This area is a quiet haven, which would be ruined by the proposed development, especially flats 4 to six stories high, also Dale Avenue is a narrow road, and already has cars parked on either side of the road, making it difficult to negotiate.

Why were all the houses, demolished along Hoxton Park Road, years ago? only to have even more erected or proposed, in this development?

We don't want high density housing and the noise associated with it, in this area, our quality of life would suffer.

Yours Faithfully,

16 SEP 2023

Page 1

Date: 9/14/2023 11:49:29 PM

Subject: Planning Proposals Submission Form

## Application Details

Application  
Number: RZ-3/2022

## Your Submission

How do you want  
to submit? :How do you want  
to submit?: Text

Type your submission here: Im apposing on the proposal. Hoxton Park road already busy along that proposed strip. Dale ave, and surrounding streets are currently to small to handle the volume and traffic. Crime is increasing with the current affordable housing in these streets. Proposal will chock hoxton park Rd and our street

Attach your  
submission here: No file uploadedPlease upload  
other  
attachments: No file uploaded

## Your Details

First Name:

Last Name:

Unit:

Street Number:

Street Name:

Suburb:

State:

Postcode:

Email:

Phone Number:

9/20/2023

**RE: RZ – 3/2022**

Dear \_\_\_\_\_

We received LCC letter Re: Exhibition of Planning proposal RZ – 3.2022, 91 – 145 Hoxton Park Road, 51 Maryvale Avenue & 260 Memorial Avenue. We have read the Planning Proposal Intent **and We strongly oppose to the following:**

1. Increase the maximum height of the building from 15 m to 21 m (or from 4 storey to 6 storey)
2. Increase the Floor Space Ratio
3. Develop lot 20 Dale Ave. Liverpool and 44 Dale Ave, Liverpool to be access driveways to the complex.

We reside in property on lot \_\_\_\_\_

We strongly oppose the development proposal because of the following reasons:

- **Privacy and Security** – We are extremely concerned of our privacy and security. As we reside on lot \_\_\_\_\_ our property will be exposed on multiple sides to the public areas specifically on lot 20 Dale Ave on the right and retail/flat on the back additionally 20.5ms increased building heights will increase privacy concerns for our family including children and elderly because of increase chance of being seen through our Bedrooms and bath room location on 2<sup>nd</sup> floor, facing the complex on Hoxton park Road.
- **Contamination** – Quote from Development proposal estimate *“low to moderate potential for contamination to be present within 20 and 44 Dale Avenue (outside of the scope of the planning proposal)”*

It is reasonable to assume that the level of contamination can in fact be higher during the building stage (if the proposal is approved). **As we reside on \_\_\_\_\_ which locate immediate to the Access point Driveway, will be having impact substantially on our family’s health and quality of live.**

- **Acoustic** -Quote from Development proposal *“As the nature and scale of the proposed development is indicative only at this stage, the acoustic impacts may vary once detailed design and DA preparation commence. As such, it is reasonable to explore noise mitigation measures at DA stage.”*

The proposal failed to address acoustic and noise impact on our family.

our family will be exposed to multiple sides of acoustic problem caused by the development specifically construction on 20 Dale Ave to the left and Hoxton Park Rd at to the back of our property. This multiplies **the acoustic and noise impact significantly on our family household including children and elderly person.**

Once completed, The access point \_\_\_\_\_ being at lot 20 Dale ave) will be subjected to high vehicle trip per hour. Such **high VTPH will generate significantly higher traffic noise than current which will impact our live and livelihood**

Once completed, Retail Businesses and customers will generate significant **acoustic and noise during operation hours plus their close proximity to our property will impacted our family livelihood.**

- **Waste and Rubbish**

**We reside on lot                      and We are extremely concerned of the waste and rubbish generated from retail businesses around our property.** Lack of management of these waste and rubbish will generate bad odour, which will impact on our livelihood, especially in our backyard, backing on the retail and residential area of the development.

- **Traffic and Parking**

**We are extremely concerned of Traffic and Parking on our street.** The proposal does not adequately provide solutions to increase traffic and parking on our street.

Once completed, The access point Driveway on the right of our property (being at lot 20 Dale ave) will be generate high traffic to Dale Ave because of high vehicle trip per hour. Dale Ave is narrow and has limited street parking. It is hardly provide adequate traffic flow and parking to resident on Dale street currently, let alone significant increase of 319 units, with access point flow on Dale Ave in future.

The current road surface condition of Dale Ave has multiple potholes and water damages. It is extremely concerned if the new resident and their visitors vehicles are added to street via access points on 20 and 48 Dale Ave.

- **Our Safety**

which locate immediate to one of the access point being at lot

With the estimate of high Vehicle Trip Per Hour next to our property cause extremely safety concerns for our children and elderly in our family. **Due to extreme concerns of our safety, It is likely that our children and elder will be confined in door and their livelihood will be significantly impacted.**

We are open to dialogue with the developer to seek satisfactory resolution to mitigate our overall concerns.

Yours Sincerely,

Page 1

Date: 9/19/2023 7:19:07 PM

Subject: RZ-3/2002 planning proposal

We oppose against this development as it's going to affect the whole neighbourhood as in traffic congestion, parking congestion and the public housing section of this section will bring trouble, robberies and police involvement as it has in rowland ave. The traffic on Hoxton park road is congested enough from hill road to the school (on flowerdale road) because of the no left turn onto memorial ave 6-10 am mon-Friday and with the school being down the road it causes even more traffic. The traffics is forced to go up Maryvale ave and flows up dale ave and st pauls crescent. This development will only make this worse for the locals that have to already deal with the traffic congestion and extra bock travel which can take up to 20 minutes in the mornings as well as the afternoons waiting on Hoxton park road for the school parents to collect their children to pull into the pick up drop off zone. The lights on Hoxton park road and memorial ave must be altered so locals can turn right from memorial ave onto Hoxton park road and the no left turn sign removed from Hoxton park road to be able to turn onto memorial ave. This will help reduce the traffic congestion drastically and not force the locals to wait in traffic and have to turn on maryvale ave where cars are parked on the road on both sides.

9/20/2023

To Whom It May Concern:

The proposed development has highly unsuitable access as it is planned to grant access to the 6-storey complex from Dale Avenue, a street running parallel to Hoxton Park Road. This street is a highly unsavoury access road for numerous reasons. Firstly, the road is a very narrow road already and is only 3 cars wide. Furthermore, because of the recent development of townhouses in Dale Avenue with some not having any basement parking at all, the street is already highly burdened by the unsuitable number of cars that are parking on the street, making it very difficult to travel down without having to give way to other vehicles. Dale Avenue already has two townhouse developments in addition to a childcare centre as well as a nearby childcare centre in Maryvale avenue. With many commuters already using Maryvale avenue as a shortcut to Flowerdale avenue, the traffic in the morning and afternoon times are chaotic as it is. With the addition of hundreds of apartments, all being accessed by such narrow streets which are already over-congested, it is our opinion that Dale Avenue would not make a suitable access road. Access to the development from Hoxton Park road would make a much more suitable access road for the development.

## Application Details

Application  
Number: RZ-3/2022

## Your Submission

How do you want  
to submit? :

How do you want  
to submit?: Text

Type your  
submission here: I oppose this proposal, my reasons being is that there is very limited street parking as it is  
now in that immediate area and increase traffic congestion. Affordable housing will attract  
crime to the area on top of the recent break ins that are currently unsolved by NSW Police  
with dense ratios

Attach your  
submission here: No file uploaded

Please upload  
other  
attachments: No file uploaded

## Your Details

First Name:

Last Name:

Unit:

Street Number:

Street Name:

Suburb:

State:

Postcode:

Email:

Phone Number:

Subject: Planning Proposals Submission Form  
Date: 28.09.2023 16:50:58 (+02:00)  
Attachments: pic 4.jpg (1 page)

**Application Details**

Application  
Number: RZ-3/2022.

**Your Submission**

How do you  
want to  
submit? :

How do you  
want to submit?: Text

Type your  
submission here: Planning proposal stating the 'Community Consultant' of 28 days finish on 9th of  
October, which concurred by LCC website. However, Today being 28th of September,  
local resident have seen trucks coming into the site, unloading building material  
( pictures attached). What is going on here ????

Attach your  
submission here: No file uploaded

Please upload  
other  
attachments: pic 4.jpg, type image/jpeg, 3.0 MB

**Your Details**

First Name:

Last Name:

Unit:

Street Number:

Street Name:

Suburb:

State:

Postcode:

Email:

Phone Number:



**To:** LCC  
**Subject:** Planning Proposals Submission Form

**Application Details**

Application  
Number: RZ-3/2022

**Your Submission**

How do you  
want to  
submit? :

How do you  
want to Text  
submit?:

Type your  
submission  
here: As a resident, I believe the rezoning of this area would make a massive impact. It  
would allow more places to live, especially in this cost of financial crisis. The retail  
premises would also allow the local economy to flourish and allow residents of this  
area to have everything within the same area

Attach your  
submission No file uploaded  
here:

Please  
upload other No file uploaded  
attachments:

**Your Details**

First Name:

Last Name:

Unit:

Street

Number:

Street

Name:

Suburb:

State:

Postcode:

Email:

Phone

Number:

**From:**  
**Sent:** Thu, 5 Oct 2023 10:57:54 +0000  
**To:** LCC  
**Subject:** RZ-3/2022

Hi,

I strongly object to this proposal.

The land was initially bought off from the owners to widen the road.

After the airport is constructed' the road needs to be widened as there would be a lot of traffic build-up.

There is no left turn between 6 am to 10 am at Memorial Avenue during weekdays since a councillor lived on that street as informed by previous residents.

All the traffic would be funneling into Maryvale Avenue. This is a safety issue where residents won't be getting parking and unsafe to reverse or come out of their driveway.

Please do this development close to the airport.

**From:**  
**Sent:** Thu, 5 Oct 2023 17:45:47 +1100  
**To:** LCC  
**Subject:** RZ-3/2022

To Whom it may Concern,

My name is I am writing on behalf of my mother who is a resident of  
 . My mother wanted me to write the following:-

As a resident of this area for a very long time over 67 years, I have seen a lot of changes. This one to have all these extra buildings I think will not be an asset. I **object to the change of height from 4 storeys to 6 storeys** because of population increases and the effects that these have on the local streets.

Adding more traffic (cars, 4 wheel drives and trucks) to an already over used Maryvale and Dale Avenue would be a disaster.

Traffic is already using Maryvale Avenue as a rat run morning and night when the lights at the corner of Flowerdale Road and Hoxton Park Road turn red, traffic will turn left into Maryvale Avenue. Without the added extra cars from this new development being added into the mix.

It is an accident waiting to happen if cars are leaving Dale Avenue and joining a flood of traffic which never obeys the speed limits on this road which is 50kms now and also has weight restrictions placed on it. One of my carers has had her car mirror taken off by a speeding car in the past.

There are 2 Child Care Centres in this area – one in Maryvale Avenue and one in Dale Avenue. Extra traffic from more units will surely **create a safety issue**. Leaving times of both these centres is in peak period of travel which is a worry.

Dale Avenue is very narrow and often has cars are parked on both sides so only one car at a time can proceed up or down at a time. Maryvale Ave is the same as well drivers have to wait like a contra flow effect if you meet an oncoming car either way. It is really bad in the evenings and weekends when residents of these streets come home and try to park their cars. With the increased adding of Granny Flats in the area this has also added to more traffic and parking issues.

Building an extra 2 storeys will add even more cars to the mix. I am not sure just how many cars this would be but it **would not** be an a good thing with all the problems that are already in the streets even **without the new development**.

I feel that this is just a Council cash grab adding 2 extra storeys over multiple buildings and is of no benefit to the local residents in the Maryvale Subdivision.

4 Storeys only NOT 6 which is too high. Density too much, too many people in an area of which the streets are not coping now let alone when these would be built.

Yours faithfully,

As owners of \_\_\_\_\_ we would like to make a submission regarding this Planning Proposal for the following 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue Liverpool: RZ-3/2022.

**1. R4 High Density Residential Increase in storeys from 4 to 6 – 15m to 21m and increase to FSR from 1:1 to 1:5:1**

To permit an increase from 4 storeys to 6 storeys – 15m to 21m” and “FSR from 1:1 to 1:5:1”, this will increase the densities excessively, which will then further impact on the following issues, especially with the access being granted for the proposed development from Dale Avenue:

- (a) There will be increase in traffic flow and traffic congestion from Dale Avenue, as traffic will be diverting into Maryvale Avenue and then following through to Memorial Avenue, which already is taking a load of traffic coming through from Hoxton Park Road/Maryvale Ave daily.
- (b) Currently excess traffic is being generated by the increased traffic movements turning left from Hoxton Park Road into Maryvale Avenue, which then proceeds to turn right into Memorial Avenue, particularly of a morning. Both Maryvale Avenue and Memorial Avenue and intersecting streets from Memorial Avenue, including Flowerdale Road are currently being utilised as access points and thoroughfare to travel towards Liverpool CBD and Elizabeth Drive. This proposed planning proposal will further add additional traffic into already congested streets. Memorial Avenue has already multiple traffic devices, slowing down traffic due to 2 fatalities in the past and the additional traffic load will further affect the traffic flow, limiting residents to come out of intersecting streets and even their own homes.
- (c) Infrastructure around Hoxton Park Road and within this area already needs to be addressed with the current capacity of traffic, particularly Hoxton Park Road itself should be widened to cope with the current traffic capacity, let alone permitting any further development, and/or additional increase in development standards to accommodate this planning proposal.
- (d) Furthermore, increasing the height from 4 to 6 storeys – 15m to 21m, will not only set a precedence for the remaining R4 zoning on both sides of Hoxton Park Road but also surrounding properties that are R4 zoning. If this precedence is set, then other others of property would also seek to maximise on both sides of Hoxton Park Road. A Traffic Impact Assessment would show the impact and loss of amenity on this road to the current available road infrastructure. This would also not project a very aesthetically presentable streetscape.

**2. Provide “Portion of apartments as affordable housing”**

The planning proposal is inclusive of a “portion of apartments as affordable housing” which will eventually add to the increased traffic congestion, with the conversion and expiration of the consent period, currently 15 years. At a number of current nearby “affordable housing” sites, there still appears to be parking in the streets by the residents, even though this should not be the case eg cnr Smith Crescent and Flowerdale Road which may also occur at this site.

**3. Allow “Retail Premises” with a maximum gross floor area of 200m<sup>2</sup> in “R4 High Density Residential zone”**

Allowing “Retail Premises” as part of the proposed development, will attract further traffic from passing potential customers, accessing the site or parking nearby, for utilisation of proposed businesses and how will this be addressed? Permitting “Retail Premises” will also set a precedence for future similar developments in R4 zoning particularly along Hoxton Park Road when it is currently not permissible under R4 High Density Residential.

**From:**  
**Sent:** Fri, 6 Oct 2023 09:49:05 +0000  
**To:** LCC  
**Subject:** RZ-3/2022

Hi,

I very strongly object to the proposal of construction of apartments at 93-145 Hoxton Park Road, 51 Maryvale Avenue, and 260 Memorial Avenue due to:

1.0 There is already a very heavy traffic at Maryvale Avenue in the morning. Vehicles from these apartments will create havoc on traffic flow specially in the morning.

2.0 Maryvale Avenue had a limited street parking and vehicles from these apartments will be parking burden to Maryvale Avenue.

3.0 These developments will be a burden to our area in terms of robbery, overcrowding etc.

In view of above, I strongly object to these developments.

9 October 2023

The Chief Executive Officer  
Liverpool City Council

Dear Sir,

**Re: Planning Proposal RZ-3/2022 — 93-145 Hoxton Park Road & 51 Maryvale Avenue & 260 Memorial Avenue, Liverpool**

We wish to express our opposition to the proposed amendment of the Liverpool Development Control Plan 2008 for the above mentioned land.

After reading the developer's Planning Proposal Report, we appreciate their desire to add to the amenity of the area with retail spaces, landscaped areas and traffic management through their purchased properties in Dale Avenue. We also appreciate their proposal to reduce the boundary offset for proposed storeys 5 and 6, and their stated desire to increase the housing supply for the city.

We cannot, however, support the proposed amendments to increase the floorspace ratio or the development height. The developers argue that these can be achieved with limited adverse effect on the amenity of the area and that they are desirable, if not necessary, for the viability of the development. While we cannot speak to the latter argument, they are mistaken on the former, for the following reasons.

**Increased in traffic volume and parked cars**

Traffic volume in the local streets is already very high in peak times. Traffic is regularly backed up from the Flowerdale Rd intersection back to Hill Rd during the morning peak, impeding motorists commuting to Liverpool as well as to us trying to return to our home. Maryvale Avenue is effectively a major thoroughfare diverting traffic away from the choked Hoxton Park Rd and into Liverpool. Memorial Avenue would be a major 'rat run' but for the timed 'no left turn' and its regular enforcement by police. It is usual for vehicular progress along Webster Road to be impeded by the need to stop and let oncoming traffic through, owing to the narrowness of the road surface and cars parked on either side. The proposed development of 240 apartments as allowed by the existing (unamended) LLEP 2008 would add parked cars to all local streets in the area and would increase the volume of traffic travelling on all local streets and particularly Dale Avenue and Maryvale Avenue which are not suited to such volumes. This is something that we view as a necessary evil for the purposes of development and providing housing for the city. There is a clear cost to the amenity of the local area associated with a development of this size. To increase it to 279 or 312 apartments beyond what the LLEP 2008 specifies merely increases the cost beyond what has already been determined to be the maximum acceptable. Perhaps if the developers were to build a pedestrian bridge over Hoxton Park Road at the Flowerdale Rd intersection, this would mitigate some existing traffic woes of the area and lead residents such as us to view their proposal to maximise floor space ratio with less cynicism. In either event, the proposal ought to be rejected as excessive for the area.

**Unacceptable height**

One must wonder why the developers think that six storeys has little additional effect on the surrounding area than four storeys. Four storeys is already taller than any other structure west of the Copeland St-Hoxton Park Road towers. The limit of four storeys in the LLEP was presumably put there for a reason. Perhaps it was to prevent excessively tall buildings (like six storey ones) in an area where most buildings are one or two storey? A single six storey tower would be visually dominant in the area. A row of six six storey buildings spanning 400 metres would be an unacceptable blight on the landscape.

**Retail Premises**

The proposal to build retail premises seems positive on first glance. There may be some merit in the idea. We are concerned, however, of the risk of them being uneconomic for the kind of businesses they are targeted at because of lack of local parking, proximity of other more easily accessible businesses at places like Maryvale Ave, Hill Rd Lurnea or in the Liverpool CBD. It would be a shame to repeat the folly of building retail premises like those at 420 Macquarie St that seem to have remained vacant ever since the development was completed several years ago, or the ones at the Paper Mill that are poorly accessible due to the lack of parking.

We urge you to reject the planning proposal as an unacceptable impost on the amenity of the local area.

**To The Chief Executive Officer,**

The development of this proposal 93-145 Hoxton Park Rd, 51 Maryvale Ave and 260 Memorial Ave Liverpool. RZ-3/2022 will significantly affect the Residents of Dale Ave in more than one way.

From the Draft Specific Development Control Plan

2 – Specific objectives and controls

2.1 a) Ensure the design of the buildings and location of uses responds appropriately to the site, provides a high quality of amenity and protects visual privacy to future occupants and surrounding residential uses.

It does not provide or protect visual privacy for surrounding residents as there will be a possibility of windows and balconies facing the house behind the proposal invading the privacy of current residents.

d) Traffic impacts to the adjoining road network minimized.

Traffic impact which is more than likely not the case at all. Cars will be entering from Hoxton Park Rd Maryvale Ave and Memorial Ave into Dale Ave. Traffic will impact the Residential Streets of Maryvale Ave, Memorial Ave and Especially Dale Ave.

With 1 allocated parking space to each unit /retail it is common to see households with at least 2 vehicles. Dale Ave is a narrow street. It does not have the capacity to have an extra 200-300 vehicles passing by or parking in it and hindering residents from entering and leaving their properties or having no space to park an extra vehicle or space for a visitors vehicle.

When you have a proposal of 279 units with retail shops or 312 units, it means you have another 200-300 vehicles travelling or parking in Dale Ave. There is no guarantee that there will be no extra vehicles parked on Dale Ave from the proposed Units.

This also carries a very big concern for safety as the majority of Dale Ave is occupied by Families with young children and there is also a childcare located in the street. Too many vehicles entering and leaving Dale Ave can be dangerous.

To also have large vehicles like trucks entering and leaving Dale Ave makes it hard for residents to enter the Street and their households as we have experienced it firsthand before with previous developments.

From The Planning Proposal Report (Mecone)

Proposed Trip Generation (Vehicular trips per hour)

Morning Peak 12 in 47 out

Afternoon Peak 37 in 10 out

Retail Morning Peak 7 in 2 out

Afternoon Peak 1 in 6 out.

The concept plans indicate the proposal would facilitate 279 apartments with retail or 312 apartments. This number of vehicles entering and leaving in the report is less than half the amount of the residency of the apartments. The numbers don't sound realistic at all.

Planning Report (Mecone)

“ The proposal scale of development in this location will reduce reliance on private vehicle for essential travel.”

The reduce reliance of private vehicles is not guaranteed. Residents of these new units may not necessarily use public transport for all their transportation . A majority of people living in units have decided to have a suitable living space but may be employed at a far distance from where there is not at all close public transport available or they may need their vehicles for work. Weather they live near public transport or not this will not necessarily reduce the reliance of private vehicles.

“The proposal will enhance access to job and services through connections to the existing bus services. The increase intensity will strengthen the viability of existing public transport services in the area.”

The improvement of public transport doesn't rely solely on the development of these units. Public transport has already increased with new developments of housing overall in The Liverpool Area

The Proposed development RZ-3/2022 overall disrupts the privacy and safety of Residence which live in Dale Ave LIVERPOOL 2170.

We hope that Liverpool Council will take into consideration the views of Residents of Dale Ave. Some may have some English difficulties and not responded to the proposal. Others may have been on holidays considering its also school holidays and not voiced their opinion.

**Kind Regards,**

**9/10/2023**

**From:**  
**Sent:** Mon, 9 Oct 2023 16:49:30 +1100  
**To:** LCC  
**Subject:** Re: RZ-3/2022

Hi CEO,

We would like to express our concern regarding the rezoning of the land at 93-145 Hoxton Park Road.

1. Strategic concerns

- a. The proposed increase in development capacity on this site does not align, or has not been envisaged by Council's long term strategic plan as the site has already been appropriately zoned for low rise, high density development with an FSR of 1:1 across the site. This proposal seeks to increase development capacity by at least 50% on a site outside of the Liverpool City Centre and other identified growth areas.
- b. The subject site is not envisaged in Council's Housing Strategy as a location for further intensification. It's current zoning and density already provides the ability for an appropriate level of renewal and intensification fitting of its out-of-centre location, but along the Transit Way.
- c. This proposal will set a precedent for unplanned, uncoordinated growth across the Liverpool Local Government Area outside of identified growth areas, being in centres and key corridors. The site is already appropriately zoned for the current and planned provision of public transport, services and amenities.
- d. Increases in density in this location, beyond what has been planned for by Council, should also provide commensurate public benefit. If this planning proposal were to proceed, increased demand on local open space, roads and other Council services ought to be considered.

2. Site specific concerns

- a. The quantum of apartments utilising Dale Ave for vehicular access is considered excessive. Dale Ave is a small scale, narrow suburban Street, which would not be capable of being the main access point for circa 250 apartments in a location not well serviced by public transport, other than providing connections into Liverpool City Centre via the Transit Way. There is opportunity for the site to be afforded access via Memorial Avenue and Maryvale Avenue rather than Dale Parade. Furthermore, the use of Dale Avenue for garbage trucks and

service vehicles for this development will also have detrimental impacts on the safety and function of Dale Avenue, particularly for trucks servicing commercial/retail floor space, which could occur at various and multiple times.

- b. The maximum height of six storeys provides for a poor interface with the prevailing height of the surrounding low density suburban areas. The current four storey height limit provides a more appropriate and acceptable transition between two storey dwellings to the north, and four storey apartments south of Dale Avenue.
- c. The maximum width of buildings is proposed to be 58 metres. This is excessive and goes against good design principles of a maximum 40-45 metre building. In a suburban setting out of an established centre, buildings should have smaller footprints and widths, and be within a well landscaped setting.
- d. To comply with NSW Apartment Design Standards, the majority of units will be required to face north to achieve minimum sunlight standards, exacerbating overlooking as a result of increasing height by two storeys towards lower developments, including suburban housing north of Dale Ave.
- e. The site specific controls proposed note that blank facades will be 'avoided' to Hoxton Park Road, but not any other side of the development. This will potentially allow for blank facades to the east, west and north, providing a poor design outcome that is not compatible with the surrounding area.

Kind regards,

**To The Chief Executive Officer,**

The development of this proposal 93-145 Hoxton Park Rd, 51 Maryvale Ave and 260 Memorial Ave Liverpool. RZ-3/2022 will significantly affect the Residents of Dale Ave in more than one way.

From the Draft Specific Development Control Plan

**2 – Specific objectives and controls**

2.1 a) Ensure the design of the buildings and location of uses responds appropriately to the site, provides a high quality of amenity and protects visual privacy to future occupants and surrounding residential uses.

It does not provide or protect visual privacy for surrounding residents as there will be a possibility of windows and balconies facing the house behind the proposal invading the privacy of current residents.

d) Traffic impacts to the adjoining road network minimized.

Traffic impact which is more than likely not the case at all. Cars will be entering from Hoxton Park Rd Maryvale Ave and Memorial Ave into Dale Ave. Traffic will impact the Residential Streets of Maryvale Ave, Memorial Ave and Especially Dale Ave.

With 1 allocated parking space to each unit /retail it is common to see households with at least 2 vehicles. Dale Ave is a narrow street. It does not have the capacity to have an extra 200-300 vehicles passing by or parking in it and hindering residents from entering and leaving their properties or having no space to park an extra vehicle or space for a visitors vehicle.

When you have a proposal of 279 units with retail shops or 312 units, it means you have another 200-300 vehicles travelling or parking in Dale Ave. There is no guarantee that there will be no extra vehicles parked on Dale Ave from the proposed Units.

This also carries a very big concern for safety as the majority of Dale Ave is occupied by Families with young children and there is also a childcare located in the street. Too many vehicles entering and leaving Dale Ave can be dangerous.

To also have large vehicles like trucks entering and leaving Dale Ave makes it hard for residents to enter the Street and their households as we have experienced it firsthand before with previous developments.

From The Planning Proposal Report (Mecone)

Proposed Trip Generation (Vehicular trips per hour)

Morning Peak 12 in 47 out

Afternoon Peak 37 in 10 out

Retail Morning Peak 7 in 2 out

Afternoon Peak 1 in 6 out.

The concept plans indicate the proposal would facilitate 279 apartments with retail or 312 apartments. This number of vehicles entering and leaving in the report is less than half the amount of the residency of the apartments. The numbers don't sound realistic at all.

Planning Report (Mecone)

“ The proposal scale of development in this location will reduce reliance on private vehicle for essential travel.”

The reduce reliance of private vehicles is not guaranteed. Residents of these new units may not necessarily use public transport for all their transportation . A majority of people living in units have decided to have a suitable living space but may be employed at a far distance from where there is not at all close public transport available or they may need their vehicles for work. Weather they live near public transport or not this will not necessarily reduce the reliance of private vehicles.

“The proposal will enhance access to job and services through connections to the existing bus services. The increase intensity will strengthen the viability of existing public transport services in the area.”

The improvement of public transport doesn't rely solely on the development of these units. Public transport has already increased with new developments of housing overall in The Liverpool Area

The Proposed development RZ-3/2022 overall disrupts the privacy and safety of Residence which live in Dale Ave LIVERPOOL 2170.

We hope that Liverpool Council will take into consideration the views of Residents of . Some may have some English difficulties and not responded to the proposal. Others may have been on holidays considering its also school holidays and not voiced their opinion.

**Kind Regards,**

**From:**  
**Sent:** Mon, 9 Oct 2023 16:54:01 +1100  
**To:** LCC  
**Subject:** RE: RZ-3/2022, Chief Executive Officer  
**Importance:** Normal

To: The Chief Executive Officer  
RE: RZ-3/2022

As local residents, we strongly oppose the Planning Proposal which aims to amend the Liverpool Local Environmental Plan 2008 (LLEP 2008) to suit the development at 93-145 Hoxton Park Rd, as we believe this is not in the best interests of local residents.

The developer purchased this site knowing it was R4 and could see a profit.

This developer now wishes to increase those profits and the amendments necessary for this could be interpreted as Council facilitating Profiteers.

We have witnessed the effects of higher density living on local urban streets, especially the huge increase in on-street parking for residents and their visitors because there is NEVER enough parking provided in these high density residential developments.

There is NO STREET PARKING ALLOWED on a very large portion of Hoxton Park Rd and definitely no parking in front of or near the section that this proposed development will be built on.

**This means that residents and their visitors will frequently be parking in the already cramped streets of Dale, Maryvale and Memorial Avenues etcetera.**

Maryvale Shops is already frequently crowded with cars from the nearby townhouse developments, so those businesses and people who want to shop there are impacted by the improper use of allocated parking spaces for customers..

WE DON'T WANT TO SEE THE SORT OF MESS WE SEE frequently around the Paper Mill Development and the Lateral Residences with cars parked illegally and traffic and cars unable to pass freely down the crowded roads etcetera and are horrified that our Council has been so careless in allowing these developments that line the pockets of Developers while causing havoc for local residents who live around them and for those who reside within them.

We have enough problems with street parking now due to Townhouse and Granny flats.

Infrastructure is another issue with all the new developments springing up around Liverpool – it is rarely, if ever, changed to suit the ramifications of higher density living.

We have noted that high rise residencies with Retail premises incorporated are frequently allowed to build right to the property boundary as in the monstrous Lateral Residences on corner of Mill Rd and Macquarie St., that are built right up to the footpath instead of having a garden/buffer zone between these huge buildings and one of the biggest and busiest intersections in Liverpool. This looks to be the same in Concept drawing of new development – and it looks like a prison...

Therefore the wisest choice would be to leave the R4 Development as standard since any amendments will create more parking problems and set a precedent for other developments.

We would like to believe that our Council cares about the current residents of Liverpool but the poor decisions made with little or no regard to how these developments impact on existing infrastructure, parking and local people themselves, tells another story.

From

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9 October 2023

Liverpool City Council  
Ground Floor, 33 Moore Street,  
Liverpool NSW 2170

Email: [lcc@liverpool.nsw.gov.au](mailto:lcc@liverpool.nsw.gov.au)

Dear Sir/Madam,

**RE: RZ-3/20229- 3-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue,  
Liverpool NSW**

- 1.
2. I have now had the benefit of reviewing all the documents available on the council website in respect of the proposed development and application to rezone bearing application number RZ-3/2022. I have observed that the subject application pertains to the rezoning of land situated at 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue, Liverpool NSW ("**the Site**") so as to allow the applicant to develop up to 20.5 meters, as opposed to the currently permissible 15 meters. This would ultimately result in the development of two additional levels so that the total is 6 levels.
3. I note with serious concern, that the purported access to the proposed development will be from 20 and 48 Dale Avenue. From the onset by way of obvious proposition, the proposed development will increase what is already problematic traffic conditions and environmental and noise pollution.
4. The proposal to grant access to the proposed development from Dale Avenue is in all the circumstances untenable. Dale Avenue is in and of itself, already a narrow street where parking is a scarcity. When cars are parked on either side of Dale Avenue as it currently stands, only a single car may proceed in the direction at any given time. This will no doubt be aggravated in the extreme, by the influx of vehicles belonging to residents of the proposed development site and vehicles using the proposed access through 20 and 48 Dale Avenue as a passageway.
5. Further, of equal concern is the increase of environmental and noise pollution. This will naturally follow from the increased density of residence and the environmental and noise emissions they generate. This effect will be directly passed on to and absorbed by the current residence of Dale Ave by the proposed changes to 20 and 48 Dale Ave.

6. The current zoning when it came into effect, was premised amongst other things on the geographical and demographical layout of the surrounding streets and suburb generally. That is, the zoning of the subject area was established having regard to indicators such as street sizes, population density, traffic and transport logistics. It is therefore blatant that the town plans and streets surrounding the development site were never intended to facilitate and accommodate to high density residential living.
7. It's follows, that my property will suffer significant detriment. This detriment is shaped by the following factors:
- a) A loss of privacy will occur in circumstances where my property will be exposed to a main road being Hoxton Park Road and the street that passes through 20 Dale Ave.
  - b) An increase of noise and environmental pollution.
  - c) An increase in traffic, which will overburden a narrow street and cause a higher risk for children walking to the nearby primary school or bus stop.
  - d) A potential loss of car parking spot in front of proposed Street (20 Dale Ave).
  - e) The aforementioned will cause a significant decrease in the value of my property, and will lower the desirability of living in it as a tenant or owning it.
8. The Planning Proposal and the consultants used in support of same are clearly intended to be self-serving and non-objective. With respect, there are very significant problems with the Proposal which have been either superficially or insufficiently addressed; for some of these problems there is no solution.
9. To that end, suffice to say I oppose the proposed rezoning in the strongest possible terms. I have confidence that council as a matter of prudence and good judgement shares my concerns and will in the same manner and fashion oppose the application for rezoning.

Kind regards,

**The development of this proposal 93-145 Hoxton Park Rd, 51 Maryvale Ave and 260 Memorial Ave Liverpool. RZ-3/2022 will significantly affect the Residents of Dale Ave in various ways.**

Extracted from the proposal plan:

- 1) "Traffic impacts to the adjoining road network is minimized."

This is entirely concerning as additional buildings will significantly lure more people into the area, potentially leading to increased traffic congestion and parking difficulties. This can crucially affect the sense of privacy for residents living in Dale Avenue, Maryvale Avenue and Memorial Avenue who previously enjoyed a much quieter and less compacted neighbourhood within Liverpool. In relation to this, individuals that will later reside within these certain structures and buildings are most likely to own at least 2 working vehicles as it is common. This will be a problem as some may choose certain Avenues to park their vehicle, causing difficulties for residents that have been previously residing on these certain Avenues.

As a result, due to the increase in population density that will fluctuate, this can dramatically cause greater security concerns for residents as they may feel less secure and safe within their homes. This will be occurring as unknown residents from Hoxton Park may enter within Dale Avenue, leading to high numbers of potential anonymity.

- 2) "They would like to increase the building development from 15 meters to 20.5 meters (4 stories to 6 stories)"

This is an abduction of privacy as these new buildings will crucially reduce the level of privacy for residents as these buildings will be taller in size. For example, windows, balconies, and outdoor spaces may be overlooked by neighbours or passerby due to this development. This will most likely cause conflicts throughout the neighbourhood as these new structures/ buildings will obstruct previously unobstructed views from residents' homes. This can affect the aesthetic appeal of the area and reduce the sense of spaciousness and openness for residents residing in Dale Avenue, Maryvale Avenue and Memorial Avenue.

Additionally, this most definitely will reduce the regular amount of natural light that they normally receive, possibly casting shadows over properties surrounding it. In consequence, these tall structures can provide vantage points from which people can overlook neighbouring properties, leading to a sense of being observed or intruded upon, reducing levels of privacy.

Thank you,

Kind Regards

**From:**  
**Sent:** Wed, 4 Oct 2023 13:02:47 +1100  
**To:** LCC  
**Subject:** RZ-3/2022

I would like to lodge an objection to the development at 93-145 Hoxton Park Road. The objection is based on 2 items:

1. Traffic flow in Dale Avenue.

The proposed development application states there will be minimal traffic impact on Dale Avenue. The proposal to build approximately 315 units with the only access via Dale Avenue, has to impact the traffic flow. Dale Avenue is classified as a local road. It is not a wide road and currently is often reduced to a single lane due to the cars parked on both sides of the street. Assuming a conservative view of 1 vehicle access per day per unit, that is over 300 vehicle movements per day, in addition to what the street currently endures. Speaking from personal experience accessing and leaving our property is often problematic given the parked cars and moving traffic.

2. Water pressure.

Our property in Dale Avenue currently experiences very poor water pressure. The addition of multiple dwellings on several blocks in the street have significantly impacted the water pressure. The addition of approximately 315 units can only make this situation worse. There was not mention of mitigation of this problem in the application.

I hope consideration is given to the points raised in this email.

**From:**  
**Sent:** Sun, 8 Oct 2023 06:55:36 +0000  
**To:** LCC  
**Subject:** Chief Executive Office, regarding ref: RZ-3/2022

Chief Executive Office,

Thank you for sending out the letter regarding ref: RZ-3/2022

As a resident living in for over 20yrs, I would like to express my concerns  
against amending LLED 2008 on this proposal.

The surrounding streets around this development, Dale ave, St Pauls cres, Memorial ave, Roland ave and Maryvale ave are already congested.

I struggle driving in and out of Dale ave already. Opening up two additional streets into Dale ave will chock the streets as well as Hoxton park rd.

Crime is also a problem in these streets and this proposal, adding extra 312 apartments, two opening to narrow streets is going to be a bigger problem.

If this development does go ahead, please consider keeping the not amending the R4 zoning, and not opening up the two properties into Dale ave. Maybe add a park for kids and more lighting and security.

Feel free to contact me.

**From:**  
**Sent:** Sun, 8 Oct 2023 07:44:41 +0000  
**To:** LCC  
**Subject:** Exhibition of Planning Proposal RZ-3/2022

Reference: RZ-3/2022

I wish to submit my objection to the proposed development of 93-145 Hoxton Park Road.

My objections are that Council has not considered the impact that this development will have on the residents of Dale Avenue, St Pauls Road and Maryvale Avenue.

Has anyone from Council actually inspected these roads when everyone is at home? Dale Avenue at times is almost impassible due to cars parked on either side of the road and it becomes a very narrow strip of roadway to travel up and down. If another vehicle wants to pass in the opposite direction, it is a matter of trying to find a driveway to pull into in order for the other vehicle to pass. Larger vehicles have difficulty in passing each other when cars are parked on both sides of the road. Has Council even asked the garbage collector drivers on how easy they have it at times in trying to collection the weekly rubbish? Has Council asked the emergency services how easy it has been for ambulances to pass through Dale Avenue? I bet you haven't even considered it.

Maryvale Avenue entrance off Hoxton Park road at times is just a single lane. Cars speedy off Hoxton Park Road before 10am or when the traffic is banked up on the corner of Flowerdale Road and Hoxton Park Road, don't care if there is any other vehicle coming in the other direction. They just speed around the corner and if you are in the way, heaven help you. I no longer make a left hand turn from Maryvale Road to Hoxton Park Road because it is not safe to do so. Cars are parked on both sides of the road in this section and Council intends for another 150 - 300 residential cars from the project to try to use this road.

St Pauls Road entrance to Dale Avenue has residential cars parked on both sides of the road due to residents from the town houses parked there and other residents further up the street. Again when all residents are at home, St Pauls Road has very little parking available to it for the residents that now live in that road. The same can be said for Rowland Street.

The development is proposing to have 300 units built and 2 shops with parking for only 274 vehicles. Most families have 2 cars each, which means there is a need for 600 cars not 274 as noted in the proposal. Where are the other 326 vehicles going to park? Please don't give the reason that they will be using the bus or bikes to get around. We all know that will not happen. Apart from the T-80 service, the bus servicing in this area, only comes every ½ hour and has extremely limited services after 6pm and on the weekends. Yes, there are 3 bus routes

that travel Hoxton Park Road, but they don't travel to areas where there is work or even shopping centres in other areas in a direct route, like Casula Mall and Carnes Hill. As for the 2 shops, only 6 cars per hour will be there. What type of retail business would survive with having only 6 customers per hour.

Does council intend to be widening Dale Avenue to contend with the additional vehicles that this development is going to bring into the area? If not, then I think Council should think again. As the road will not cope with the volume of traffic that you are intending to use the road.

Are speed humps being installed to slow the speed of the cars that race up and it Maryvale, Dale and St Pauls now?

Is Council considering making the access of Maryvale Avenue from Hoxton Park Road a residential only road, with residential cars having a tag to enter and other vehicles not being able to. Have used this system when I was living in London in 1982, so I know the technology does exist.

Is Council considering closing Maryvale Avenue completely from Hoxton Park Road, to make it safer for residents?

As for parking, I hope Council does not think that the surrounding roads will be taking the additional 326 vehicles for the new residents to park as there is NO room for any additional vehicles parking on our streets now. Alternatively, is council or the developer going to build a multi floor parking station opposite the project on the corner of Hill Road and Hoxton Park Road for the residents.

It is quite obvious that council is intending to make the development into a housing commission residence. Has council considered the problems that will arise from that many people living in the one complex and having very little and how that will impact the original residents. Is council going to supply additional security for the residence that is living here now for what may happen in the future.

I'm sure that Council and the developer does not give a hoot about the concerns of the local residents that are going to be impacted by this development, all you are thinking about is money.

Regards

PS. I would love to hear what both the Council and the developer have to say about my concerns. Why not hold a public meeting for the residents of Dale Avenue, Maryvale Avenue, Memorial Avenue, St Pauls Road and Rowland Street and explain to all of use what you intend to do or to listen to our concerns

.

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**From:** noreply@liverpool.nsw.gov.au  
**Sent:** Sun, 8 Oct 2023 21:31:14 +1100  
**To:** LCC  
**Subject:** Planning Proposals Submission Form

**Application Details**

Application Number: RZ-3/2022

**Your Submission**

How do you want to submit?

:

How do you want to submit?: Text

Type your submission here: I would prefer this development to be kept at a maximum of 4 floors high

Attach your submission here: No file uploaded

Please upload other attachments: No file uploaded

**Your Details**

First Name:

Last Name:

Unit:

Street Number:

Street Name:

Suburb:

State:

Postcode:

Email:

Phone Number:

**From:**  
**Sent:** Mon, 9 Oct 2023 06:40:46 +1100  
**To:** LCC  
**Subject:** Fwd: Regarding ref: RZ-3/2022

**To:** lcc@liverpool.nsw.gov.au <lcc@liverpool.nsw.gov.au>  
**Subject:** ref: RZ-3/2022

Chief Executive Office,

I'm writing on behalf of my elderly mother inlaw living over 30yrs at  
Regarding ref: RZ-3/2022

She is very concerned about the volume of traffic this will create to Memorial ave coming  
from Hoxton Park rd and opening two roads to Dale Avenue.

Additionally, across the road from her will possibly be another development of over 15  
town houses. Plus, the proposal RZ-3/2022, the streets will not be able to handle this  
volume. Amending LLED 2008 is not a good idea.

Crime is already a problem in these streets. Introducing an addition 312 apartments  
including affordable house, then opening two roads into narrow streets with poor lighting.  
This is going to create another problem.

Kind regards

**From:** [REDACTED]  
**Sent:** Mon, 9 Oct 2023 01:38:51 +0000  
**To:** LCC  
**Subject:** RZ-3/2022

Dear Liverpool Council,

I write regarding the planning proposal to amend the Liverpool Local Environment Plan (LLEP 2008) for land at 93 - 145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue ref RZ-3/2022

I am an affected resident who resides in [REDACTED]

I understand that the Transport for NSW has ruled out using Hoxton Park Road for entering and exiting traffic. This will indeed place a significant burden on Dale Avenue and Maryvale Avenue.

I also understand that it is proposed to allow up to 240 apartments on the site. Provided that each apartment would typically have at least two cars that is an extra 480 cars which adds significant traffic volume to already struggling streets.

For information in the mornings, it is already impossible to cope in the mornings when traffic from Hoxton Park Road uses Maryvale Avenue as a diversion from the busy Hoxton Park Road.

There is also a question of parking, as our streets are already choked with cars parking everywhere if there is not sufficient parking, it will be literally impossible to park anywhere within the area.

Finally, the proposed amendment would significantly alter the nature of this area, it is a small area with houses and parks that is enjoyed by families and this proposal does not fit with the area. It would be more appropriate to a CBD area where there are transport facilities and other amenities.

For the reasons above I submit the amendment should not be approved.

Kind regards,

**From:**  
**Sent:** Mon, 9 Oct 2023 13:59:20 +1100  
**To:** LCC  
**Subject:** Planning Proposal RZ-3/2022 | 93 - 145 Hoxton Park Road Liverpool

To the Chief Executive Officer,

I am writing in relation to the proposed apartments for 93-145 Hoxton Park Road, Liverpool, (planning number RZ-3/2022) with concerns about the planning proposal.

As the owner of  
not be approved  
without revision.

I ask that the following

### **PRIVACY**

**Building Height** – The request to increase the building height from 15m to 20.5m completely impinges on the privacy of the neighbours

**Balconies** – A height of the requested 20.5m will result in neighbours looking down and into the properties below, resulting in a loss of privacy.

Could the apartments be modelled so that balconies are facing east, west and south, rather than north?

**Communal Open Spaces** – To be designed from Ground Level to Level 3. Most existing residences in the adjoining allotments are either one or two-storey buildings. Open communal spaces on Level 3 will again result in neighbours, visitors and the public peering into private property.

I would be interested to see the type of plants/bushes/trees that would keep the focus on the newly planned environment and not on neighbours.

**Trees** – Given the proposed 6m set-back from the boundary, what types of trees and greenery will be introduced to the area to create a level of privacy along the adjoining fence between the allotments?

While it is positive to see that the proposal states most existing trees will be kept, will very tall trees be

introduced to create privacy?

A greenscape is better to look out on than an apartment block. This is true for both new residences and existing residences on Dale Avenue.

### **SHADE**

**Shadow Casting** – Has a shade study been completed (this was not part of the proposed plan)? Placing a 15m/20m building behind residences is certain to create large shadows that will reduce the available sunlight throughout the day. This would not be welcome.

### **CONGESTION**

Dale Avenue is a narrow street. It is only three cars wide at any one time. Any visitors to the site will add further congestion to the already occupied street, leaving little space for current Dale Avenue residences and their visitors.

What ratio of visitor parking will be provided so that congestion is less likely to occur?

I trust that all of the points covered will be reviewed and considered with a look to accommodate the needs of the neighbourhood.



8 October 2023

CEO  
Liverpool Council  
[lcc@liverpool.nsw.gov.au](mailto:lcc@liverpool.nsw.gov.au)

**Objection to Planning Proposal at 93-145 Hoxton Park Road, 51 Maryvale  
Avenue & 260 Memorial Avenue**  
**Reference: RZ-3/2022**

Dear Council,

This letter has been prepared on behalf of the following land owners in objection to the Planning Proposal R-3/2022, seeking to increase the maximum building height and maximum floor space ratio for development at the abovementioned site. Landowners of the following properties wish to express their objection through this submission:

This submission raises a number of strategic and site specific merit issues with this proposal. In summary, it is recommended that Council does not support this proposal to proceed to Gateway on the grounds that there is insufficient strategic and site specific merit. These matters are addressed below.

### **Strategic merit issues**

The proposed increase in development capacity on this site does not align with Council's strategic planning policies. The proposal has not been envisaged by Council's long term Local Strategic Planning Statement, *Connected Liverpool 2040*, as the site has already been appropriately zoned for low rise, high density development with an FSR of 1:1 across the site.

This proposal seeks to increase development capacity by at least 50% on a site outside of the Liverpool City Centre and other identified growth areas and corridors. The site was previously identified as being within the Hoxton Park/Fifteenth Avenue Corridor connecting Liverpool to the future Western Sydney Airport, however the current land use, height and density controls already factor in the site's strategic significance and are commensurate with this, given the area's sensitive interface to suburban areas, and more limited public

transport connectivity which require bus connections to key nodes and access to the Greater Sydney Metropolitan rail network.

The subject site is not envisaged in Council's Housing Strategy as a location for further intensification. It's current zoning and density already provides the ability for an appropriate level of renewal and intensification fitting of its out-of-centre location, but along the Transit Way.

This proposal will set a precedent for unplanned, uncoordinated growth across the Liverpool Local Government Area outside of identified growth areas, being in centres and key corridors. The site is already appropriately zoned for the current and planned provision of public transport, services and amenities.

Increases in density in this location, beyond what has been planned for by Council, should also provide commensurate public benefit. If this planning proposal were to proceed, increased demand on local open space, roads and other Council services ought to be considered.

#### **Site specific merit issues**

The quantum of apartments utilising Dale Avenue for vehicular access is considered excessive. Dale Avenue is a small scale, narrow suburban Street, which would not be capable of being the main access point for approximately 250 apartments in a location not in a centre. It's public transport connectivity relies on a bus network that provides connections into Liverpool City Centre via the Transit Way and other local routes. There is opportunity for the site to be afforded access via Memorial Avenue and Maryvale Avenue rather than Dale Avenue. Furthermore, the use of Dale Avenue for garbage trucks and service vehicles for this development will also have detrimental impacts on the safety and function of Dale Avenue, particularly for trucks servicing commercial/retail floor space, which could occur at various and multiple times. The narrow profile of Dale Avenue is shown at the Figure below.



*Figure 1 Dale Avenue and its narrow profile. It currently can only accommodate one approximately 3 lanes of traffic. With two sides allowing for parking, there is only sufficient room for one car to travel in between.*

The maximum height of six storeys provides for a poor interface with the prevailing height of the surrounding low density suburban areas. The current four storey height limit provides a more appropriate and acceptable transition between two storey dwellings to the north, and four storey apartments south of Dale Avenue. The current setting is shown in the Figure below.



*Figure 2 Dale Avenue is currently a low scale, suburban street. Development to the south (right side of the image) will be capable of being four storeys high, which is a more appropriate height given the site's suburban context.*

The maximum width of buildings is proposed to be 58 metres. This is excessive and goes against good design principles of a maximum 40-45 metre building. In a suburban setting out of an established centre, buildings should have smaller footprints and widths, and be within a well landscaped setting.

To comply with NSW Apartment Design Standards, the majority of units will be required to face north to achieve minimum sunlight standards, exacerbating overlooking as a result of increasing height by two storeys towards lower developments, including suburban housing north of Dale Avenue.

The site specific Development Control Plan provisions proposed, note that blank facades will be 'avoided' to Hoxton Park Road, but not any other side of the development. This will potentially allow for blank facades to the east, west and north, providing a poor design outcome that is not compatible with the surrounding area.

Overall, due to concerns regarding access, traffic, servicing, privacy and urban design, it is not considered that the proposal demonstrates sufficient site specific merit to proceed.

**Conclusion**

As outlined above, it is not considered that this planning proposal exhibits sufficient strategic and site specific merit. It provides for an ad-hoc, uncoordinated change to planning controls that will have detrimental impacts on the locality, services, infrastructure and surrounding properties. The site is already appropriately zoned for high density development.

As such, it is recommended that Council do not progress this Planning Proposal. Please feel free to contact the undersigned on \_\_\_\_\_ to discuss the above information further if required, or email \_\_\_\_\_

Kind regards

**From:**  
**Sent:** Tue, 10 Oct 2023 09:53:04 +0000  
**To:** LCC  
**Subject:** RZ-3/2022  
**Importance:** High

Hi,

I'm writing regarding the zoning for land at 93-145 Hoxton Park Rd in particular.

**I note that the letter providing the opportunity for a community voice arrived yesterday, giving me less than 24 hours to read and respond. I'm not sure if this is incompetent or strategic. This, and the fact that the only community voice is via email, tells me that the member for Liverpool isn't interested in the voices of the people she claims to represent.**

I would like to know where and how I might not only voice my opinions on the potential rezoning but actively challenge and petition against this, as there is an apparent disparity of power being exercised. The transition to higher and higher density in this area further degrades quality of life. The infrastructure, particularly the roads and traffic, can not cope with an ever-increasing volume of people. This is so blatantly obvious.

I'm sure there are financial benefits for those involved, which puts community trust in the decisions here at risk.

Please advise on what can be done to officially raise these concerns and ensure coproduction and the community voice is heard, and actions are taken.

Thanks for your time.

### **ATTACHMENT 3 – SUBMISSION TABLE BY THEME**

Exhibition Submission Topic	Number of submissions raising the topic of concern	Council Officer Comment
<p><u>Traffic/parking.</u></p> <ul style="list-style-type: none"> <li>- Difficulty accessing the site due to existing access arrangements from Hoxton Park Road to Memorial and Maryvale Avenue.</li> <li>- Can not turn right from Memorial Avenue onto Hoxton Park Road.</li> <li>- Dale Avenue and the local area including Memorial and Maryvale Avenue and Hoxton Park Road cannot handle the expected additional traffic.</li> <li>- Width of Dale Avenue inadequate for additional traffic (Dale Avenue is 3 car widths wide and cars park on both sides of Dale Avenue meaning traffic can only move in one direction at a time forcing a vehicle travelling in one direction to pull over to allow a vehicle travelling in the opposite direction to pass).</li> <li>- Access to/from the site should be from Hoxton Park Road through traffic works undertaken at cost of the Developer including upgrade of existing traffic light intersection of Hoxton Park Road and Webster Road.</li> <li>- Site originally purchased to widen Hoxton Park Road.</li> <li>- Safety measures such as speed humps required, close Maryvale Avenue, resident access only.</li> <li>- Retail component will add to traffic and parking congestion.</li> </ul>	Twenty Six	<p>The subject site fronts Hoxton Park Road which is identified as a classified road in accordance with Transport for New South Wales (TfNSW) Schedule of Classified Roads and Unclassified Regional Roads.</p> <p>In this regard, State Environmental Planning Policy (Transport and Infrastructure) 2021, clause 2.119 (Development with frontage to a classified road) applies to the subject site as does clause 138 of the Roads Act 1993. In this regard TfNSW is the public Authority for Hoxton Park Road and concurrence is required from TfNSW.</p> <p>The proponent undertook two prelodgment meetings with Council prior to the formal submission of the planning proposal. During the assessment of both of the pre lodgement meetings, various access points were discussed including via Dale Avenue, Hoxton Park Road, Memorial Avenue and Maryvale Avenue.</p> <p>It was advised that the proponent is to seek access via Dale Avenue as TfNSW is highly unlikely to support access via Hoxton Park Road or Memorial and Maryvale Avenue due to their close proximity to Hoxton Park Road.</p> <p>Should a gateway determination be issued by the Department of Planning and Environment (DPE), consultation would occur with TfNSW prior to the finalisation of the planning proposal. During consultation with TfNSW, alternative access points would be assessed.</p> <p>The subject site provides opportunity for high public transport accessibility with the site being within close proximity to Liverpool CBD and via the existing Tway bus route adjacent to the site on Hoxton Park Road.</p> <p>Further it is noted that the subject site is already zoned R4 – High Density Residential which permits the development of residential flat buildings and a height of buildings of 15m (4 storeys).</p>

### **ATTACHMENT 3 – SUBMISSION TABLE BY THEME**

<ul style="list-style-type: none"> <li>- Lack of safety to pedestrians and parked cars from vehicles.</li> <li>- Lack of street parking.</li> <li>- Needs visitor parking</li> <li>- Parking congestion.</li> <li>- Lack of road space for waste or emergency vehicles.</li> </ul>		<p>In this regard, any issues regarding points of vehicular access to/from the site remain regardless of the planning proposal.</p> <p>The planning proposal would allow ground floor retail premises use, an additional 2 storeys in height (approximately an additional 72 apartments).</p> <p>Council continues to advocate for infrastructure including traffic and intersection matters however upgrade works to a classified road such as Hoxton Park Road require consent of TfNSW.</p> <p>A future development application on the subject site would be required to be submitted with a Traffic Impact Assessment Report and further referral and consent from TfNSW.</p> <p>Any retail or residential component of any future development on the subject site would be subject to assessment against Council's Development Control Plan parking requirements including minimum number of spaces required, visitor requirements and waste vehicle requirements for both the residential and commercial.</p> <p>Any future residential flat building development application on the subject site may be referred to NSW Police for comment. Further the application would be subject to the design principals of crime prevention through environmental design (CPTED) and a future development application on the subject site would be reviewed by Liverpool's Design Excellence Panel.</p>
<p><b><u>Increased crime from affordable housing.</u></b></p> <ul style="list-style-type: none"> <li>- Increased crime from number of apartments and narrow streets with poor lighting.</li> </ul>	Seven	<p>Any future residential flat building development application on the subject site may be referred to NSW Police for comment. Further the application would be subject to the design principals of crime prevention through environmental design (CPTED) and a future development application on the subject site would be reviewed by Liverpool's Design Excellence Panel.</p>
<p><b><u>Reduced privacy and Safety.</u></b></p> <ul style="list-style-type: none"> <li>- From having two lots on Dale Avenue not built upon</li> <li>- Privacy concerns from proposed development including windows, open space and balconies to adjoining allotments.</li> <li>- Need trees to obscure privacy.</li> </ul>	Seven	<p>A site specific Development Control Plan has been developed for the subject site to ensure that the development minimises impact including privacy impacts to adjoining residences and the vicinity.</p> <p>A future residential flat building development on the subject site is subject to being designed in accordance with State Environmental Planning Policy 65, Apartment Design guide and Liverpool Development Control Plan as well as reviewed by the Liverpool Design Excellence Panel. In this regard it is anticipated that a development can be designed on the subject site which mitigates any privacy and/or safety impacts to adjoining residences or the vicinity.</p>
<p><b><u>Noise.</u></b></p> <ul style="list-style-type: none"> <li>- From increased population through increased number of stories/height</li> <li>- From construction.</li> </ul>	Three	<p>A future development application on the subject site would be required to be submitted with a Noise Impact Assessment Report by a suitably qualified person with mitigation recommendations throughout the construction and post completion stages and the report and application would be</p>

### **ATTACHMENT 3 – SUBMISSION TABLE BY THEME**

		reviewed internally by Council's Environmental Health section. A Plan of Management and/or Noise Management Plan may further be required.
<u>Overshadowing</u> - Will cast shadows over properties.	Two	A site specific Development Control Plan has been developed for the subject site to ensure that the development minimises impact to adjoining residences and the vicinity. Any future development on the subject site for a residential flat building is subject to a future development application and assessment for design against Council's Development Control Plan, the Apartment Design Guide, State Environmental Planning Policy 65 and reviewed by the Design Excellence Panel.
<u>Lack of Infrastructure</u> - Infrastructure cannot cope. - Infrastructure does not change with large developments.	Two	Shadow diagrams would be required with any future development application. Council continues to advocate for additional infrastructure and existing infrastructure upgrades within the Liverpool Local Government Area.
<u>Lack of strategic merit</u> - Site not listed under strategic plans including housing strategy, not envisioned for growth above current zoning. - No additional public open space or infrastructure.	Two	The planning proposal was referred to the Liverpool Local Planning Panel where the panel concluded that subject to recommendations, that the proposal demonstrated strategic merit.
<u>Poor height transition to adjoining properties</u> - Six storeys provides for a poor interface with the prevailing height of the surrounding low density suburban areas. - Blank facades to the east, west and north.	Two	The area is undergoing transition to medium and high density with current maximum height of buildings within the vicinity of the subject site ranging from 8.5m to 21m. The Apartment Design Guide and the draft site specific Development Control Plan have been designed to ensure minimising bulk and scale to adjoining properties and the wider vicinity including through additional setbacks for levels 5 and 6.
<u>Building width of 58m</u> - Good design principal building width of 40-45m. - In a suburban setting out of an established centre, buildings should have smaller footprints and widths, and be within a well landscaped setting.	Two	The planning proposal urban design plans are concept plans only and the site specific Development Control Plan is a draft only. The planning proposal and any future development application on the subject site for shop top housing or residential flat building is subject to review and assessment against Council's Development Control Plan, the Apartment Design Guide, State Environmental Planning Policy 65 and reviewed by the Design Excellence Panel.
<u>Decrease in quality of life from development/overcrowding.</u> - Will set a precedence for other sites in the area.	One	The proposed concept development provides opportunity for a diverse housing choice and affordable housing opportunities within close proximity to Liverpool CBD and high public transport accessibility via the existing Tway bus route on Hoxton Park Road.

### **ATTACHMENT 3 – SUBMISSION TABLE BY THEME**

<u>Development out of context of area</u> - Area is low density - More suited to a CBD.	One	The area is undergoing transition to medium and high density with current maximum height of buildings within the vicinity of the subject site ranging from 8.5m to 21m.  The Apartment Design Guide and the draft site specific Development Control Plan ensure minimising bulk and scale to adjoining properties and the wider vicinity including through additional setbacks for levels 5 and 6.  Council encourages for commercial premises to be occupied with minimal vacancies.
<u>Commercial shops remaining empty</u>	One	
<u>Water Pressure</u> - Properties already experience low water pressure.	One	The Planning Proposal and any future development application on the subject site may be reviewed by Sydney Water.  Council continues to advocate for additional infrastructure and existing infrastructure upgrades within the Liverpool Local Government Area.  This is not a matter for consideration under the Environmental Planning and Assessment Act 1979.
<u>Decrease in property value</u> - Will lower the desirability of living in it as a tenant or owning it. - Will lower property value.	One	
<u>Contamination.</u>	One	A future development application on the subject site would be required to be submitted with a stage 1 Preliminary Site Investigation Report prepared by a suitably qualified person with a conclusion/recommendations.  The report and application would be reviewed internally by Council's Environmental Health section. A stage 2 Preliminary Site Investigation Report may further be required.
<u>Late receiving notification of proposal</u>	One	Notification of exhibition letters were posted prior to the commencement date of the exhibition period. In addition the planning proposal was exhibited under two separate sections on Council's website. The exhibition period was 8 September 2023 to 9 October 2023 which is in excess of the minimum required exhibition period due to a public holiday falling within the exhibition period. All submissions received have been considered regardless of the date received by Council.
<u>Lack of ways to respond.</u>	One	The exhibition was undertaken by way of letters to properties and owners and under two separate sections on Council's website. Submissions can be made by way of direct reply to Council staff either via phone, letter or email or via representation from Councillors or state or federal elected members.

### **ATTACHMENT 3 – SUBMISSION TABLE BY THEME**

Waste/rubbish. - Amount of waste generated from retail premises.	One	Any future development on the subject site would be subject to a future development application of which an assessment against Council's Development Control Plan waste requirements would be undertaken including number of waste and recycling bins required, size of waste/recycling bins required, satisfactory storage location of waste bins, any waste/recycling bin storage room requirements and access requirements for collection/emptying of the waste/recycling bins.
<b>Exhibition Submission Topic</b>	<b>Number of submissions raising the topic of Support</b>	<b>Council Officer Comment</b>
Rezoning allows more housing particularly currently with the cost of living.	One	The planning proposal would allow approximately 72 additional apartments than what is currently permissible on the site.
Commercial portion of the planning proposal would be positive for the local economy and residents.	One	The planning proposal recommends the addition of a schedule 1 clause of Liverpool Local Environmental Plan 2008 to allow small scale retail premises on the site with each premises having a maximum gross floor area of 200m <sup>2</sup> and an overall total maximum commercial retail floor area on the site not exceeding 1200m <sup>2</sup> .

# Planning Proposal Report

93-145 Hoxton Park Road, 51 Maryvale Avenue &  
260 Memorial Avenue, Liverpool NSW

On behalf of  
ABA Estate Pty Ltd  
Updated 12 July 2023








## Project Director

Adam Coburn

## Contributors

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Tyson Ek-Moller

Revision	Revision Date	Status	Authorised	
			Name	Signature
REV01	15/06/2022	Draft	AD	
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REV03	23 January 2023	Updated	Adam Coburn	
REV04	23 March 2023	Updated	Adam Coburn	
REV05	13 July 2023	Updated	Adam Coburn	

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- Appendix 2** Landscape Design Report
- Appendix 3** Acoustic Impact Assessment
- Appendix 4** Traffic Impact Assessment and Green Travel Plan
- Appendix 5** Social Impact Assessment
- Appendix 6** Operational Waste Management Plan
- Appendix 7** Preliminary Geotechnical Assessment
- Appendix 8** Preliminary Site Investigation
- Appendix 9** Desktop Flood Assessment
- Appendix 10** Arboricultural Impact Assessment

## 1 Introduction

This planning proposal has been prepared by Mecone NSW Pty Ltd (Mecone) on behalf of ABA Estate Pty Ltd (the applicant), in support of the request to Liverpool City Council for amendment to the LEP in relation to the land known as 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue, Liverpool NSW. These properties form the main part of a development site, which also includes 20 and 48 Dale Avenue, Liverpool.

The planning proposal is intended to support the redevelopment of the site for the purposes of mid-rise residential flat buildings, specifically seeking an increase to the permissible building height and floor space ratio appropriate to the site location.

### 1.1 The Proposal

In order to achieve the envisioned outcome for the site, this planning proposal seeks to amend the Liverpool Local Environmental Plan 2008 (LEP 2008) for the part of the subject site along Hoxton Park Road, between Maryvale Avenue and Memorial Avenue in Liverpool, as follows:

- Amend the maximum height of buildings from 15 metres to 20.5 metres,
- Amend the floor space ratio control from 1:1 to 1.5:1, and
- An update to Schedule 1 (Additional permitted uses) to include 'small scale retail' activities that includes 'business premises', 'food and drink premises' and 'shops', as defined by the LEP 2008.
  - Uses to be permitted by changes to Schedule 1 (as proposed by this Planning Proposal) are to have a maximum Gross Floor Area (GFA) of 150m<sup>2</sup>.



**Figure 1.** Existing and Proposed Height of Buildings

Source: Tony Owen Partners



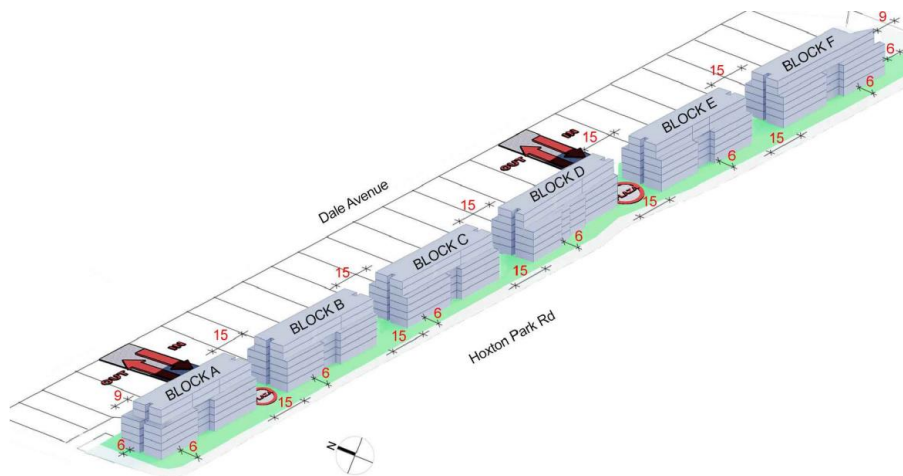
- A description of the site in its local and regional context.
- Part 1: A statement of the objectives and intended outcomes of the proposed instrument (for changes to the LLEP 2008).
- Part 2: An explanation of the provisions that are to be proposed to be included in the instrument (to change the LLEP 2008).
- Part 3: The justification of strategic and site-specific merit for the proposed provisions (changes) and the process for their implementation including:
  - The suitable need for the planning proposal
  - The relationship and alignment to the strategic planning framework
  - Consideration of environmental, social and economic impacts
  - Adequacy of infrastructure
  - Relevant State and Commonwealth interests
- Part 4: Proposed maps (with changes).
- Part 5: Community consultation to be undertaken and considered.
- Part 6: Project timeline.

## 1.2 The Concept

The planning proposal is supported by a concept design for the site prepared by Tony Owen Partners. The concept design envisions the following outcomes:

- 6 x 6 storey residential flat buildings with maximum building heights of 20.5 metres
- Ground floor neighbourhood shop tenancies (with maximum GFAs of 150m<sup>2</sup>) and approximately 312 residential apartments, including a mix of 1, 2 and 3 bedroom apartments
- Vehicular and pedestrian site access via nos. 20 and 48 Dale Avenue
- The creation of pedestrian links through the site, which connect residents from the high and medium density residential area on Dale Avenue and streets to the north, through to high frequency bus services on Hoxton Park Road
- The opportunity for high quality landscaped areas and deep soil planting in semi-public spaces as well as communal open spaces

The urban design report provides concept designs for the purpose of evidencing the site suitability of the planning proposal for increasing height of buildings to 20.5 metres (for 6 storeys) and an FSR of 1.5:1 along the main (Hoxton Park Road) part of the site. Future residential apartment buildings, dwelling yield and the specific built form would be subject to more detailed architectural plans and rigorous assessment during a future development application (DA) process.



**Figure 3.** Concept Design Massing Diagram, as viewed from the Southwest  
Source: Tony Owen Partners



**Figure 4.** Concept Design Layout Plan  
Source: Tony Owen Partners

### 1.3 Proponent and Project Team

The planning proposal has been informed by the following accompanying reports prepared by the project team:

### Table 1. Project Team

Concept Design	Tony Owen Partners
Landscape Design	Site Image
Traffic Impact Assessment and Green Travel Plan	Traffix
Acoustic Impact Assessment	Acouras
Desktop Flood Study	SGC
Social Impact Assessment	Hill PDA
Operational Waste Management Plan	Elephant's Foot
Geotech	El Australia
Contamination	El Australia
Planning Proposal	Mecone

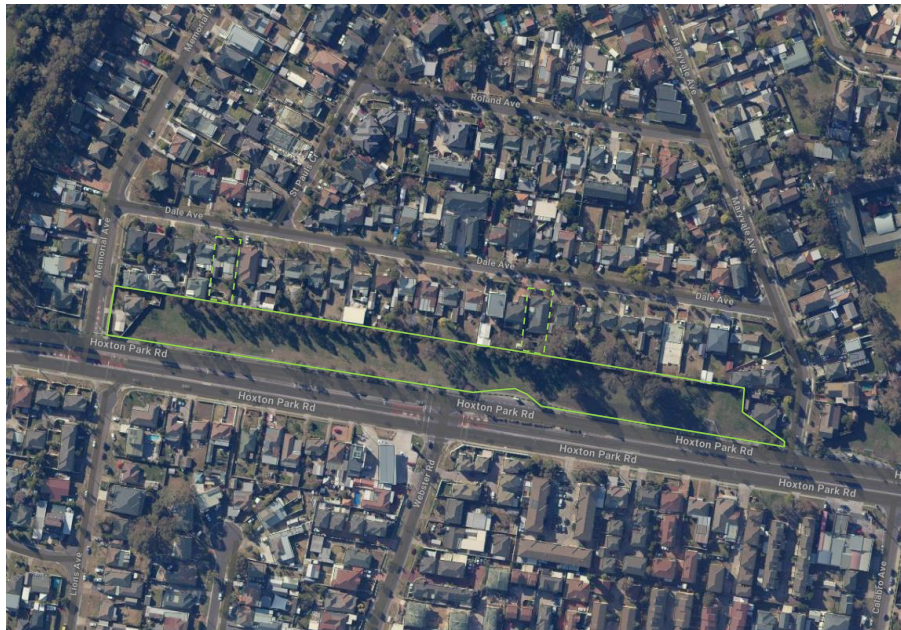
## 2 The Site

### 2.1 Site Context

The subject site is located at 93-145 Hoxton Park Road, 51 Maryvale Avenue, 260 Memorial Avenue, 20 and 48 Dale Avenue, Liverpool NSW, within the Liverpool Local Environmental Area. Liverpool sits within the Western City District Plan, as shown in Figure 3 below.

The site comprises a total of 31 lots, with a total area of approximately 14,945.4m<sup>2</sup>. The site is approximately 450m wide and 34m deep, and benefits from street frontages to Hoxton Park Road, Memorial Avenue and Dale Avenue. The part of the site subject to the proposed planning includes only the 29 lots fronting Hoxton Park Road, which is approximately 13,549.3m<sup>2</sup>.

The site is strategically positioned within close proximity to the M7 Motorway (3.5km west), South-Western M5 Motorway (1.5km South) and Liverpool CBD and Train Station (2.5km east). Hoxton Park Road is a major thoroughfare public transport corridor with multiple bus services providing frequent services into the Liverpool CBD, including the rapid bus T-Way service.



**Figure 5.** Subject Site Aerial  
Source: Mecone Mosaic



**Figure 6.** Location of the Site in the Western Parkland City

Source: Greater Sydney Commission

## 2.2 Site Description

The total development site includes 93-145 Hoxton Park Road, 51 Maryvale Avenue, 260 Memorial Avenue, 20 and 48 Dale Avenue, Liverpool. The part of the site, subject to proposed changes to the maximum Height of Buildings and FSR comprises 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue, Liverpool.

Properties at 48 and 20 Dale Avenue, Liverpool are associated with the main part of the site subject to proposed change, but are not proposed for any increase in height or FSR. These properties have been considered as integral to the proposal in the supporting Urban Design study and technical reports for the purposes of vehicular access, through-site pedestrian links, landscaping and resident amenity.

The site is within an existing R4 High Density Residential zone, which is observed along the Hoxton Park Road corridor on the outskirts of the Liverpool CBD. For residential uses along the Hoxton Park Road corridor, floor space ratio (FSR) controls generally range from 1:1 to a maximum of 6:1 further east on the corner of Hoxton Park Road and the Hume Highway.

This site is unique as it is a large, consolidated and largely vacant land holding substantially free of significant environmental constraints and adjacent to major arterial road with public transport. As such, it has the capacity to facilitate orderly development and accommodate additional yield than originally intended in the 1:1 FSR control.

The table below provides a description of the subject site.

Table 2. Site Description	
Item	Detail
Legal description	<p><b>Planning Proposal site lots proposed for change:</b> Lots 53-80 DP 1154816 Lot 2 DP 1050030</p> <p><b>Development site associated lots:</b> Lots 126 and 140 DP 25952</p>
Total site area	<p>Development site – 14,945.35m<sup>2</sup> Planning Proposal site proposed for change – 13,549.30m<sup>2</sup></p>
Shape	Approximately 450 metre length x 25-34 metre depths (75 metre depth at Dale Street accesses)
Frontage	Approximately 450 metres to Hoxton Park Road, 34 metres to Memorial Avenue and with 2 x 15 metre frontages to Dale Avenue
Topography	There are modest level changes across the site. As it is a large site, these vary in different places. Generally, the site is one level higher at the eastern end and there is generally a fall from north to south.
Existing buildings/ structures	Primarily vacant land, with existing single dwellings on 260 Memorial Avenue, 20 and 48 Dale Avenue.
Access to transport infrastructure	<p>The site is strategically located immediately adjacent to the 'Memorial' Bus T-way (Transitway) station which is serviced by high frequency rapid bus into Liverpool CBD to the east and industrial employment lands, Miller TAFE and Parramatta CBD to the west.</p> <p>The site is positioned within close proximity to the M7 Motorway (3.5km west), South-Western M5 Motorway (1.5km South) and Liverpool CBD and Train Station (2.5km east). Hoxton Park Road is a major transport thoroughfare to the wider District.</p>
Surrounding development	<p>The site is currently surrounded by generally low-medium density development with typical lot sizes ranging from 500m<sup>2</sup>-700m<sup>2</sup>. However, the site and its immediate surrounds along Hoxton Park Road and the southern side of Dale Avenue are zoned R4 high density. The area further to the north is zoned for R3 Medium Density Residential.</p> <p>This area around the 'Memorial' Bus Transitway Station was rezoned for high and medium density residential housing as part of the introduction of the new Liverpool LEP in 2008. It can take time for the character of an area to transition to higher density uses, though the minimal 'take-up' of development under these zones over the past 14 years is particularly notable.</p>

Table 2. Site Description

Access to schools and open space	The site is located within close proximity and a short walk to Liverpool Public Schools (150m east) and Eloura Nature Reserve and Ireland Park (100m west).
Vehicular access and parking	Formalised driveway access is available to those lots with single dwellings (260 Memorial Avenue, 20 and 48 Dale Avenue). Driveway access is also available off Hoxton Park Road, near no 95 Hoxton Park Road.
Flooding	The site is not identified as flood prone land, with the exception of a small portion of 260 Memorial Avenue which is impacted by the PMF. The hypothetical development footprint is entirely clear of flood impact and flood free ingress and egress can be achieved.
Heritage	The site is not heritage listed or in the immediate vicinity of a heritage item.
Consent History	Council's online DA tracker indicates no recent consents for the site. Aerial photos confirm that dwelling houses were previously present on site and demolished to make way for the widening of Hoxton Park Road and creation of Bus T-way lanes and stations.

The photos below further depict the site and surrounding environment.



**Figure 7.** Site viewed from Hoxton Park Road looking west

Source: Google Maps



**Figure 8.** Site viewed from Hoxton Park Road looking east

Source: Google Maps



**Figure 9.** Site viewed from Dale Avenue at proposed site entry point (no 20)  
Source: Google Maps



**Figure 10.** Site viewed from Dale Avenue at proposed site entry point (no 48)  
Source: Google Maps

## 2.3 Planning Background

### 2.3.1 Planning History

There are existing dwelling houses on 3 of the 31 lots: 260 Memorial Avenue, and 20 and 48 Dale Avenue. The remainder of the site is currently vacant, underutilised residential land, residual from the widening of Hoxton Park Road for the Bus T-way.

The site was zoned R4 High Density Residential as part of the comprehensive Liverpool LEP 2008 in response to the introduction of the rapid bus transport infrastructure, implementing a residential development strategy and the findings of the T-way corridor land use study. Due to the current limited building height and FSR, along with the unique characteristics as a long and shallow site, the property has not been developed for its intended purpose as a result of the rezoning.

### 2.3.2 Current Zoning, Uses and Provisions

A summary of the current planning provisions that apply to the subject site under LLEP is provided in Table 3.

Table 3. Current Provisions Liverpool LEP 2008


Item	Detail
Part 2 – Permitted and prohibited development	<p>The land is zoned <b>R4 High Density Residential</b></p>  <p><b>Figure 11.</b> Zoning Map (Source: Mecone Mosaic)</p>

Table 3. Current Provisions Liverpool LEP 2008

	<p><b>R4 High Density Residential</b></p> <p><b>1. Objectives of the zone</b></p> <ul style="list-style-type: none"> <li>To provide for the housing needs of the community within a high density residential environment.</li> <li>To provide a variety of housing types within a high density residential environment.</li> <li>To enable other land uses that provide facilities or services to meet the day to day needs of residents.</li> <li>To provide for a high concentration of housing with good access to transport, services and facilities.</li> <li>To minimise the fragmentation of land that would prevent the achievement of high density residential development.</li> </ul> <p><b>2. Permitted without Consent</b></p> <p>Home-based child care; Home occupations</p> <p><b>3. Permitted with Consent</b></p> <p>Attached dwellings; Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Centre-based child care facilities; Community facilities; Dwelling houses; Educational establishments; Environmental facilities; Environmental protection works; Exhibition homes; Exhibition villages; Flood mitigation works; Home businesses; Home industries; Hostels; Hotel or motel accommodation; Kiosks; Multi dwelling housing; <u>Neighbourhood shops</u>; Oyster aquaculture; Places of public worship; Public administration buildings; Recreation areas; Residential care facilities; <u>Residential flat buildings</u>; Respite day care centres; Roads; Secondary dwellings; Serviced apartments; Shop top housing</p> <p><b>4. Prohibited</b></p> <p>Any (other) development not specified in item 2 or 3 (above)</p>
Clause 4.1 – Minimum Subdivision Lot Size	A minimum lot size of <b>1000m<sup>2</sup></b> applies to the site.
Clause 4.3 – Height of Buildings	A maximum height of <b>15 metres</b> currently applies to the site.
Clause 4.4 – Floor Space Ratio	An FSR of <b>1:1</b> currently applies to the site.

The intended site use (residential flat buildings and neighbourhood shops) is currently permitted in the zone and consistent with the objectives of the zone for a variety of housing types within a high density residential environment that provides for a variety of housing to meet the housing needs of the community, as well as uses that provide facilities or services to meet the day to day needs of residents.

Due to the main road location of the site immediately adjacent to multiple bus stops and the T-way public transport corridor, as well as the scale and consolidated

ownership of the land holding and the, there is potential to provide greater contribution towards housing supply in line with the intention of the R4 zone, with suitable and appropriate increases to the permissible FSR and building height.

The proposed FSR and building heights are the result of an urban design study, including a contextual analysis of the site and built form testing.

The strategic and site specific merit of the proposed LEP changes are outlined in detail in the following sections of this report.

### 3 The Planning Proposal

Section 3.33 of the EP& Act 1979 outlines the required contents of a planning proposal. The NSW Department of Planning and Environment's *A Guide to Preparing Planning Proposals* (December 2021) provides further guidance and separates the requirements into six components or parts. These parts are addressed in proceeding subsections of this report as follows:

- Part 1 – A statement of the objectives and intended outcomes of the proposed instrument (for changes to the Liverpool LEP 2008).
- Part 2 – An explanation of the provisions that are to be included in the proposed instrument (to change the Liverpool LEP 2008).
- Part 3 – The justification of strategic and potential site-specific merit for the proposed outcomes, provisions (changes) and the process for their implementation including:
  - The suitable need for the planning proposal
  - The relationship and alignment to the strategic planning framework
  - Consideration of environmental, social and economic impacts
  - Adequacy of infrastructure
  - Relevant State and Commonwealth interests
- Part 4 – Maps (existing and with proposed changes) to identify the intent of the planning proposal and the area to which it applies.
- Part 5 – Community consultation details and government agency consultation to be undertaken on the planning proposal post Gateway.
- Part 6 – Project timeline anticipated for the process

#### 3.1 Part 1- Objectives and Intended Outcomes

The planning proposal will enable the viable development of the subject site 93-145 Hoxton Park Road, 51 Maryvale Avenue, 260 Memorial Avenue, and 20 and 48 Dale Avenue for the purposes of residential flat buildings, a permissible land use within the R4 High Density Residential zone.

Due to the location and context of the site, there is opportunity for increased building heights and floor space ratio which would ultimately enable a development which aligns with the R4 zone objectives and contributes towards housing supply in Liverpool Local Government Area. The proposed increase in building height and FSR for additional housing is able to be accommodated on the site without any significant additional impacts on the surrounding area.

Further, the increased activity generated and the form of development envisioned for the site, with through site pedestrian links to the T-way station, public plaza spaces and small neighbourhood convenience shops and cafes, would make streets to the north more attractive for housing and encourage further urban renewal in the area. The concept design includes small neighbourhood shops, which are permitted within the R4 High density residential zone. While these are not critical to the planning proposal,

they are beneficial to the amenity of the site and surrounding area, and as such have been considered in relation to car parking and building heights.

The Planning Proposal does not propose any changes to the R4 High density residential zoning or permitted uses.

The specific objectives and intended outcomes of the planning proposal are outlined below.

#### **Objectives:**

1. To amend the Liverpool LEP 2008 to increase building height and FSR standards to enable the redevelopment of the site for 6 storey residential flat buildings, generally in accordance with the urban design concept and consistent with the Liverpool Local Housing Strategy locational requirements for new housing and residential uplift.
2. To introduce changes to the planning provisions under the Liverpool LEP 2008 in such a way that enables the specific outcomes suitable to the particular:
  - a. site circumstances, involving an efficient site depth and lots which connect through from Dale Avenue to the public transport node on Hoxton Park Road, and
  - b. context, being on the northern side of a main road environment and surrounded by an area planned for change and additional housing.

#### **Intended Outcomes:**

- **Enable the redevelopment of an underutilised site into a mid-rise residential development** that is appropriate to the site's location and unique characteristics as an efficient (long, but shallow) large land holding adjacent to a public transport node on the main road corridor between Liverpool CBD and the Western Sydney Airport.
- **Facilitate the delivery of a high quality residential design outcome** which prioritises pedestrian connectivity, community amenity and convenience and residential amenity including communal open space and landscaping.
- **Facilitate a transition of the Hoxton Park Road corridor to a transit-oriented higher density residential environment** around the public transport nodes, as envisaged by rezoning of the area in the 2008 LEP.
- **Contribute to the diversity of housing types available within the City of Liverpool** by enabling provision of affordable apartment choices in a suitable location.
- **Contribute to the local economy by providing additional worker housing and employment** opportunities for the local community in the short term through construction employment, and in the long term by the provision of ancillary retail uses which supplement and compliment nearby existing centres.
- **Provide pedestrian links and meeting places for the local community** which encourage social interaction in an evolving residential environment, utilising the two accesses to Dale Avenue for the benefit of the wider surrounding community.

- **Facilitate the suitable development of a highly accessible site** that aligns with local and State strategic objectives for the Liverpool LGA and Western City District in relation to:
  - **Providing high quality social meeting spaces and local convenience services** to meet the communities' changing needs, and contributing to a higher provision of community facilities that aligns with the growth intended for this area (PPW3 Objective 6 and LLSPS PP 6).
  - **Creating physical and social connections and a renewed place** that would improve walking access through the suburb and catalyse the establishment of a diverse inclusive neighbourhood that enriches community life and improves wellbeing (PPW4 Objectives 7 and 8 and LLSPS PP3 and PP 9).
  - **Providing greater housing supply, housing choice and affordability** with more concentrated density in a suitable location on a public transport node, with neighbourhood centre convenience and fast 10 minute access to jobs, services and facilities in the Liverpool CBD (PPW5 Objectives 10 and 11 and LLSPS PP 7).
  - **Creating a great place and small local activity nodes** that would bring people together and support the nearby Liverpool metropolitan centre to become a vibrant, mixed-use and walkable 24-hour City Centre (PPW6 Objectives 10 and 11 and LLSPS PP 5).
  - **Contributing toward a more walkable rapid transit oriented neighbourhood** consistent with the 30-minute city goal, providing a resident population and active transport improvements that support existing and future rapid transit infrastructure along the corridor linking the Liverpool CBD and Western Sydney Aerotropolis (PPW7 Objective 14 and LLSPS PP 1 and PP 2).
  - **Supporting the Western Parkland City metropolitan cluster, providing additional student and worker housing** for people studying and working in Liverpool's health and innovation precinct and customers for growing investment in Liverpool CBD business activity and visitor economy (PPW9 Objectives 21 and 22 and LLSPS PP 8 and PP 9).

### 3.2 Part 2 - Explanation of Provisions

This planning proposal seeks to amend Liverpool LEP 2008 in relation to the height of building and floor space ratio development standards.

In order to achieve the desired objectives and intended outcomes for the site, the following amendments to the LLEP 2008 are proposed:

1. Amend the Liverpool LEP 2008 **Height of Buildings Map** (Sheet HOB\_010) from 15 metres to a maximum building height of 20.5 metres.
2. Amend the Liverpool LEP 2008 **Floor Space Ratio Map** (Sheet FSR\_10) from 1:1 to a maximum of 1.5:1 for the site.
3. Amend Schedule 1 of the Liverpool LEP 2008 to allow for 'small scale retail' activities that includes 'business premises', 'food and drink premises' and 'shops', as defined by the LLEP 2008. The GFAs of premises that are to accommodate such uses are to be limited to 150m<sup>2</sup>.

The proposed LEP mapping changes apply only to 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue. No changes to provisions are proposed for 20 or 48 Dale Avenue.

### 3.2.1 Design Rationale

The proposed built form controls of 1.5:1 FSR and 20.5 metres (6 storeys) maximum building height are the result of the Urban Design Study (analysis and testing) by Tony Owen Partners.

The proposed building heights are the result of an analysis of the site in relation to the accessibility of the site to transport, services and open space, the site opportunities and constraints and the visual context of the site in relation to the planned outcomes for the surrounding area (including impacts such as sunlight access, visual privacy and visual appearance).

The urban design study evidences that the buildings heights can be increased to 20.5 metres (6 storeys maximum) along Hoxton Park Road without significant adverse impacts on the surrounding neighbourhood. Considering the urban context, this would provide for a suitable transition from 6 storeys, down to 3 or 4 storeys and then to 2 storeys further to the north in the R3 Medium Density Residential zone.

The built form testing in the Urban Design Study confirms that the potential gross floor area associated with a 1.5:1 FSR can be feasibility achieved within 20.5 metre high (6 storey maximum), Apartment Design Guideline (ADG) compliant building envelopes.

Under the current planning controls, (1:1 FSR) a maximum of 13,549.3m<sup>2</sup> GFA could be accommodated on the part of the site subject to the planning proposal (based on a site size of 13,549.3m<sup>2</sup>). With consideration for the 15 metre height control (approximately 4 storeys) and the scale of the site, this would result in underutilisation of this site. Assuming a modest 50% site coverage and a 75%-80% building envelope efficiency, this requires only 3 storeys to achieve the maximum permitted FSR.

The maximum building height standard currently provides for only 4 storeys along this highly accessible transport corridor location. Mid-rise building heights of 6 storeys along the Hoxton Park, transitioning down to 4 storeys on Dale Avenue and then down to 2 storeys further north, is considered to be a suitable built form outcome in this location. Based on the built form feasibility testing in the Urban Design study, a gross floor area equivalent to 1.5:1 FSR can be achieved along the Hoxton Park Road part of the site, with efficient lot depths with ADG compliant building separations and setbacks.

#### Design Principles

The concept design for the site layout and building envelopes have been developed in response to the design principles for the site:

- Responsive massing – Higher form which transitions to the surrounding area and preference to increase height rather than footprint for separation, deep soil planting and landscaping
- Visual legibility - The creation of gateway features and nodes at key access points and viewpoints

- Pedestrian permeability - The creation of a permeable and pedestrian friendly environment
- Building separation - Break up building mass into taller but separated buildings, rather than one long continuous wall for visual relief along Hoxton Park Road
- Green spaces - Create a green buffer along the rear and Hoxton Park Road to soften the built form, provide residential amenity and improve the streetscape

### Feasibility Testing

The proposed maximum Floor Space Ratio of 1.5:1 and 20.5 metre building height is based on built form feasibility testing of the concept design.

A benchmark scheme has been prepared within the Urban Design Study by Tony Owen Partners, which includes:

- 6 x 6 storey residential flat buildings
- 20.5 metre maximum building height
- Internal building separation ranging from 15-21 metres
- 6 metre minimum front, side and rear setbacks, with the exception of Block C which offers a marginally reduced front setback and step in building form to respond to the curve in Hoxton Park Road
- 2 new site entry points from Dale avenue which include a 2 way carriageway, visitor parking and landscape buffer to adjoining sites

The feasibility of the proposed gross floor area is evident in the following Gross Floor Area Summary Table breakdown of the concept design within the building envelopes. The concept testing suggest a hypothetical development yield of 312 residential apartments, with an additional 7 neighbourhood shop tenancies. The concept scheme is indicative only and would be subject to design development at DA stage.

TOTAL				
	GFA (RESI)		GFA (RETAIL)	
BLDG_A	3572.9	m <sup>2</sup>	424.9	m <sup>2</sup>
BLDG_B	3572.9	m <sup>2</sup>	424.6	m <sup>2</sup>
BLDG_C	3572.9	m <sup>2</sup>	453.3	m <sup>2</sup>
BLDG_D	2653.3	m <sup>2</sup>	323.9	m <sup>2</sup>
BLDG_E	3381.0	m <sup>2</sup>	409.3	m <sup>2</sup>
BLDG_F	3609.0	m <sup>2</sup>	0.0	m <sup>2</sup>
<b>TOTAL</b>	<b>20362.2</b>	<b>m<sup>2</sup></b>	<b>2036.1</b>	<b>m<sup>2</sup></b>
<b>Developable site area</b>			<b>14945.35</b>	<b>m<sup>2</sup></b>
<b>TOTAL GFA</b>			<b>22398.3</b>	<b>m<sup>2</sup></b>
<b>Floor Space Ratio (Hoxton Park Rd Lots)</b>			<b>1.50</b>	<b>:1</b>

Figure 12. GFA Summary Table

Source: Tony Owen Partners

The benchmark scheme demonstrates that ADG compliance can be readily achieved, subject to detailed design development. The findings of the concept design testing are that the combination of floor space ratio of 1.5:1 and a maximum building height of 20.5 metres are suitable for the site given:

1. The efficiency of large, consolidated land holding
2. Strategic context and immediate access to public transport
3. Ability to mitigate any negative environmental impacts, such as overshadowing which will be limited to the Hoxton Park Road Corridor
4. A quality design approach and considered landscape response

### 3.3 Part 3 – Justification of Strategic and Site Specific Merit

#### 3.3.1 Section A – Need for the Proposal

##### **1. Is the Planning Proposal a result of an endorsed LSPS, strategic study or report?**

The planning proposal is a site-specific response to the particular circumstances of the site, being a large, consolidated land holding on a prominent transport corridor, in an existing R4 high density zone.

The planning proposal has arisen as a result of a massing analysis for the site, which identified the opportunity to enable the urban development of a currently underutilised site which has the benefit of convenient access to public transport, local jobs and services.

The proposed amendment to the Liverpool LEP for increasing building height and FSR is not a specific action identified in the Liverpool Local Strategic Planning Statement, nor a specific strategic study or report by Council. However, the proposal enables housing delivery consistent with Regional and Local objectives, aligning with the following key documents:

- Greater Sydney Regional Plan 2036
- Western City District Plan 2036
- Liverpool Local Strategic Planning Statement
- Liverpool Local Housing Strategy

The planning proposal for the site is generally consistent with the objectives of the Regional Plan and strategic directions of the Western City District Plan and aligns with the priorities of the Liverpool LSPS. The strategic merit of the proposal is discussed further in Section B – Relationship to the strategic planning framework.

The proposal represents a strategic opportunity to enable housing supply in an appropriate location with convenient access to transport and proximity to local employment and services.

##### **Q2. Is the Planning Proposal the best means of achieving the objectives and outcomes, or is there a better way?**

The planning proposal is the best means of facilitating the identified objectives and intended outcomes for the specific circumstances of the site.

The proposed use is already permissible with the R4 High Density Zoning. However, the unique layout of the site as a long and shallow parcel means that the current FSR and height controls do not lend themselves to a feasible development outcome. Conservative increases to height and FSR are sought to enable a viable residential outcome on the site.

### 3.3.2 Section B – Relationship to Strategic Planning Framework

#### **Q3. Will the planning proposal give effect to the objectives and actions of the applicable regional, or district plan or strategy (including any exhibited draft plans or strategies)?**

The relevant directions, planning priorities and actions of the Greater Sydney Region Plan and Western City District have been considered in the preparation of the planning proposal. The relevant plans and strategies applicable to the subject site are addressed below.

##### **Greater Sydney Region Plan 2036**

In March 2018, the NSW Government released the *Greater Sydney Region Plan: A Metropolis of Three Cities* ("the GSRP") a 20-year plan which outlines a three-city vision for metropolitan Sydney for to the year 2036.

The GSRP is structured under four themes: Infrastructure and Collaboration, Liveability, Productivity and Sustainability. Within these themes are 10 directions that each contain potential indicators and, generally, a suite of objectives supported by a strategy response.

The planning proposal is generally consistent with the relevant strategic directions and objectives of the Region Plan, as shown in Table 3 below.

Few of the 15 specific actions in the Regional Plan are considered directly relevant to the site or planning proposal. However, the proposal directly aligns and gives effect to relevant actions under Objective 10 as follows:

##### **Objective 10 Greater Housing Supply and Actions 3 and 4: Prepare housing strategies and develop 6–10 year housing targets**

Objective 10 provides housing targets of 725,000 new dwellings for greater Sydney by 2036, of which 184,500 will be accommodated within the Western City District.

In response to Actions 3 and 4, the Liverpool City Council's Local Housing Strategy was prepared and adopted by Council in 2020. Liverpool centre and its immediate surrounds are identified as a major housing growth area for 2016-2036, which will accommodate 10,000-20,000 new dwellings. The Housing Study suggests a total overall demand of an additional 43,452 dwellings from 2016 to 2036. The estimates suggest the average demand for additional dwellings could be in the range of 2,100 to 2,200 a year, which is higher than recent development rates.

The housing study also included modelling which breaks down the housing types required. The base case assumes past growth trends and housing preferences geared at detached dwellings, while adjusted demand modelling assumes a shift towards higher density dwellings, similar to trends observed in the Central River City including

Parramatta LGA. The adjusted modelling suggests an inflated demand figure of 44,106.

It is clear from the commentary within the housing strategy that although there is sufficient capacity within current planning controls to accommodate housing growth across the LGA, the development rate is somewhat behind to meet the long term housing projections. Focus shall be placed on those areas identified as housing investigation areas, which includes Liverpool City Centre and Innovation precinct. This planning proposal will result in built form controls which enable the feasible development of a prominent site which is well serviced by public transport within close proximity to the Liverpool CBD.

**Table 12 Dwelling type demand – base case and adjusted**

Dwelling type	Change 2016-2036	
	Base Case	Adjusted demand
Separate house	30,222	22,319
Semi-detached dwelling	9,364	12,969
Apartment	3,727	8,818
Total	43,313	44,106

**Figure 13.** Dwelling Demand Trends (Source: Liverpool Housing Strategy)

Table 4. Greater Sydney Region Plan		
Direction	Relevant Objective	Comment
<b>Infrastructure and Collaboration</b>		
A city supported by infrastructure	<b>O1:</b> Infrastructure supports the three cities	The proposal for increased residential housing in this location supports the existing and future infrastructure associated with the Liverpool Metropolitan Cluster centre and contributes to ensuring this infrastructure is optimised.
	<b>O2:</b> Infrastructure aligns with forecast growth – growth infrastructure compact	
	<b>O3:</b> Infrastructure adapts to meet future need	The proposal allows for an appropriate density in a convenient location which has direct access to a T-Way bus station. Liverpool is identified as a key collaboration area within the Regional Plan, and a centre for jobs, healthcare and education. Appropriate scale residential development in this location will contribute to optimising the use of transport infrastructure and connecting people to jobs,
	<b>O4:</b> Infrastructure use is optimised	

Table 4. Greater Sydney Region Plan		
		<p>healthcare and services in the Liverpool CBD.</p> <p>The proposed scale of development in this location will reduce reliance on private vehicles for essential travel.</p>
Livability		
A city for people	<b>O6:</b> Services and infrastructure meet communities' changing needs	<p>Liverpool is Metropolitan Cluster which has a major public hospital, health precinct and a range of social infrastructure to service the needs of a growing community.</p> <p>The Social Impact Assessment submitted with this planning proposal confirms the suitability of surrounding infrastructure and highlights the positive social impacts of the proposal, including appropriately located housing, the provision of quality communal open space and through site connections and local employment generation.</p>
	<b>O7:</b> Communities are healthy, resilient and socially connected	
Housing the city	<b>O10:</b> Greater housing supply	<p>By increasing the permissible FSR on the site, the proposal directly results in scope for greater housing supply which aligns with objective 10 of the plan (outlined above). The proposal, in this location, satisfies the Council's strategic objectives and locational criteria for increased housing.</p> <p>Residential flat buildings, being the highest and best use of the site will contribute to diverse and affordable housing options in the LGA. There is scope for a range of unit sizes and layouts to meet the needs of different household types, including some larger units suitable for families and those spending more time at home, including working from home in a post pandemic setting.</p> <p>With the increased heights, lifts will be necessary, increasing general accessibility to apartments and the potential percentage of the proposed dwellings that could incorporate universal design principles to suit potential residents who may have accessibility needs.</p>
	<b>O11:</b> Housing is more diverse and affordable	

Table 4. Greater Sydney Region Plan		
A city of great places	<b>O12:</b> Great places that bring people together	As a large and consolidated development site, there is opportunity for high quality communal open space, landscaping and residential amenities which bring people together and encourage social interaction amongst residents.
	<b>O13:</b> Environmental heritage is identified, conserved and enhanced	<p>The site spans some 450m across Hoxton Park Road. To the rear of the site is a residential neighbourhood zoned R4 and R3, which will transition to medium and higher density uses over time. Residents from the north can pass through the site through the proposed pedestrian links to gain access to the T1 bus stop on Hoxton Park Road.</p> <p>The site is not heritage listed and is not within the immediate vicinity of any heritage items. It provides an appropriate location for infill development and urban renewal.</p>
<b>Productivity</b>		
A well connected city	<b>O14:</b> The plan integrates land use and transport creates walkable and 30 minute cities	<p>The site is located directly on a convergence of multiple bus services, including the T-way, which provides a high frequency service to Liverpool CBD and Train Station. Liverpool is an employment and services hub. In addition to Liverpool CBD (10-12 mins by bus) train connections is available from Liverpool to Parramatta CBD (approx. 24 min. trip).</p> <p>The proposal will enhance the walkability of the neighbourhood by providing formalised and landscaped pedestrian connections through the site for residents to the north to access Hoxton Park Road.</p> <p>Future Transport 2056 also identifies a new city shaping transport corridor, which will connect Liverpool to the new Western Sydney Airport. This corridor generally follows the alignment of Hoxton Park Road.</p>

Table 4. Greater Sydney Region Plan		
Jobs and skills for the city	<b>O20:</b> Western Sydney Airport and Badgery's Creek are an Economic Catalyst for Western Parkland City	The site is strategically positioned between the future Western Sydney Airport and the existing Liverpool City Centre.
	<b>O21:</b> Internationally competitive health, education, research and innovation precincts	Liverpool CBD and its health and education precinct provides significant employment to local residents. Liverpool CBD is home to the Western Sydney University Liverpool campus, as well as several primary and secondary schools which service the local population. Liverpool will continue to grow as a metropolitan cluster and leverage off the proximity to the Western Sydney Airport as Sydney's third CBD. The future Western Sydney Airport and Aerotropolis will also provide jobs of the future, specifically in advanced manufacturing, logistics and trade.
	<b>O22:</b> Investment and business activity in centres	Locating housing within areas which have direct access and convenient transport to local employment opportunities will enhance the economic prosperity of the Western Sydney region.
<b>Sustainability</b>		
A city in its landscape	<b>O27:</b> Biodiversity is protected, urban bushland and remnant vegetation is enhanced	Although the site is not identified as having any particular biodiversity values, there is existing vegetation on the site including some large established trees. Efforts have been made in the detailed design process to retain and where appropriate, replant trees to improve urban tree canopy cover. As well as within the site, there is opportunity for planting along the Hoxton Park Road corridor, which will soften and enhance the urban environment.
	<b>O30:</b> Urban tree canopy cover is increased <b>O31:</b> Public open space is accessible, protected and enhanced.	The proximity and availability of high quality public open space is a key consideration by consent authorities in any proposal to increase density. The site is conveniently located within walking distance of Ireland Park and Eloura Nature Reserve. This large, consolidated parcel of Public Open Space follows the Cabramatta Creek and provides over 100

**Table 4.** Greater Sydney Region Plan

		<p>hectares of greenspace for residents.</p> <p>As well as providing access to quality public open space, any future development will also provide quality communal open space on site to meet the needs of the residents.</p>
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### Western City District Plan

In March 2018, the NSW Government released *Western City District Plan* which outlines a 20 year plan for the Western City District which comprises Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly local government areas.

Taking its lead from the GSRP, the *Western City District Plan* ("WCDP") is also structured under four themes relating to Infrastructure and Collaboration, Liveability, Productivity and Sustainability. Within these themes are Planning Priorities that are each supported by corresponding Actions. The alignment of the planning proposal to relevant Planning Priorities is discussed in Table 4 below.

The subject site is located on the major Hoxton Park Road transport corridor entry to Liverpool City Centre. Five bus routes converge on this section of Hoxton Park Road heading into Liverpool CBD, including the rapid T80 regional bus service. All parts of the subject site are located within 200m of five bus stops providing a high frequency of service approximately every 10 minutes into Liverpool, and involving a trip of 10-12 minutes to the City Centre and 13-15 minutes to the station. A bus stop is located immediately adjacent to the site on Hoxton Park Road, and the 'Maxwells' T-way station is located 200m west of the site, making the location a public transport node.

The location is highly suitable for increased housing supply and diversity and the subject site is highly suitable for increased building heights in a form which will improve active transport access for the site and the surrounding area to the immediate north.

The key District planning priorities and objectives that will be given effect by the planning proposal for increased height, FSR, residential dwellings and residential diversity in this highly accessible location are as follows:

- **Planning Priority W1, Objective 4** - Planning for a city supported by infrastructure and Infrastructure use is optimised
- **Planning Priority W4, Objective 7** - Fostering healthy, creative, culturally rich and socially connected communities - Communities are healthy, resilient and socially connected
- **Planning Priority W5, Objective 10** - Providing housing supply, choice and affordability, with access to jobs, services and public transport
- **Planning Priority W5, Objective 11** - Providing housing supply, choice and affordability - housing is more diverse and affordable

- **Planning Priority W6, Objective 12** - Creating and renewing great places and local centres - Great places that bring people together
- **Planning Priority W7, Objective 14** - Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City - integrated land use and transport creates walkable and 30-minute cities

**Table 5.** Western City District Plan

Direction	Planning Priorities	Comment
Planning Priority	Objective	Planning Proposal Alignment
<b>Infrastructure and collaboration</b>		
<b>W1:</b> Planning for a city supported by infrastructure	<b>O4:</b> Infrastructure use is optimised	<p>The proposal for increased residential housing in this location supports the existing and future infrastructure associated with the Liverpool Metropolitan Cluster centre and contributes to ensuring this infrastructure is optimised.</p> <p>The proposal allows for an appropriate density in a convenient location which has direct access to a T-Way bus station. Liverpool is identified as a key collaboration area within the Regional plan, and a centre for jobs, healthcare and education. Appropriate scale residential development in this location will contribute to optimising the use of transport infrastructure and connecting people to jobs, healthcare and services in the Liverpool CBD.</p> <p>The proposed scale of development in this location will reduce reliance on private vehicles for essential travel. The site is, nevertheless, strategically positioned adjacent between the M7 motorway and M5 motorway.</p>
<b>W2:</b> Working through collaboration	<b>O5:</b> Benefits of growth realised by collaboration of governments, community and business	<p>Liverpool, including the nearby residential and industrial land areas, has been identified for greater collaboration between the State and Council to deliver significant regional and district liveability, productivity and sustainability outcomes (refer to Planning Priority W9).</p> <p>The proposal is located just south of the Liverpool Collaboration area which is subject to the Liverpool Place Strategy 2018. The vision for the Liverpool Collaboration area is as follows:</p> <p><i>By 2036, Liverpool is a rejuvenated river city, offering diverse and growing residential and employment</i></p>

Table 5. Western City District Plan

		<p>opportunities. Major health, education and retail precincts, and a network of open spaces and parklands alongside the Georges River, create a rich mix of jobs and workplaces, public spaces, shops and entertainment.</p> <p>Due to its location and existing public transport service, the subject site will benefit from the government and private investment forecasted to occur in the Liverpool Collaboration area in the next 15 years.</p>
<b>Liveability, people, housing and great places</b>		
<b>W3:</b> Providing services and social infrastructure to meet people's changing needs	<b>O6:</b> Services and infrastructure meet communities' changing needs	<p>Liverpool is Metropolitan Cluster which has a major public hospital, health precinct and a range of social infrastructure to service the needs of a growing community.</p> <p>The Social Impact Assessment submitted with this planning proposal confirms the suitability of surrounding infrastructure and highlights the positive social impacts of the proposal, including appropriately located housing, the provision of quality communal open space and through site connections and local employment generation.</p>
<b>W4:</b> Fostering healthy, creative, culturally rich and socially connected communities	<b>O7:</b> Communities are healthy, resilient and socially connected	<p>The proposal would enable a modest increase in residential density, in a location which has convenient access to social infrastructure, local shops, services and healthcare in Liverpool CBD.</p> <p>Within the site itself, high quality communal open space, landscaping and residential amenities which bring people together and encourage social interaction amongst residents.</p>
	<b>O8:</b> Greater Sydney's communities are culturally rich with diverse neighbourhoods.	
<b>W5:</b> Providing housing supply, choice and affordability, with access to jobs, services and public transport	<b>O10:</b> Greater housing supply	By increasing the permissible FSR on the site, the proposal directly results in scope for greater housing supply which aligns with objective 10 of the plan.
	<b>O11:</b> Housing is more diverse and affordable	Residential flat buildings, being the highest and best use of the site will contribute to diverse and affordable housing options in the LGA. There is scope for a range of unit sizes and layouts to meet the needs of different household types, including some larger units suitable for families and those spending more time at home, including

Table 5. Western City District Plan		
		working from home in a post pandemic setting.
<b>W6:</b> Creating and renewing great places and local centres, and respecting the District's heritage	<b>O12:</b> Great places that bring people together	This planning priority notes the function of streets as places and how functional and walkable neighbourhoods support activity and safety. The redevelopment of this site provides opportunity to improve the streetscape on Hoxton Park Road, by including street trees and a front landscape setback which will soften the urban environment. Within the site, pedestrian links will be provided to enable north-south pedestrian movement from the adjoining neighbourhood to Hoxton Park Road.
<b>Productivity, connectivity, jobs and skills</b>		
<b>W7:</b> Establishing a land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City	<b>O14:</b> A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities  <b>O17:</b> Regional connectivity is enhanced	The planning proposal generally aligns with the productivity focused planning priorities, as it seeks to locate housing in a location which has convenient access to Liverpool CBD, as well as the future Western Sydney Airport which provide employment opportunities for local residents. Significant government and private sector investment into these areas will contribute to the economic prosperity in coming years.
<b>W9:</b> Growing and strengthening the metropolitan cluster	<b>O20:</b> Western Sydney Airport and Badgerys Creek Aerotropolis are economic catalysts for Western Parkland City  <b>O21:</b> Internationally competitive health, education, research and innovation precincts  <b>O22:</b> Investment and business activity in centres.	<p>The site is strategically positioned between the future Western Sydney Airport and the existing Liverpool City Centre.</p> <p>Liverpool CBD and its health and education precinct provides significant employment to local residents. Liverpool CBD is home to the Western Sydney University Liverpool campus, as well as several primary and secondary schools which service the local population. Liverpool will continue to grow as a metropolitan cluster and leverage off the proximity to the Western Sydney Airport as Sydney's third CBD. The future Western Sydney Airport and Aerotropolis will also provide jobs of the future, specifically in advanced manufacturing, logistics and trade.</p> <p>Locating housing within areas which have direct access and convenient transport to local employment opportunities will enhance the economic prosperity of the Western Sydney region.</p>

**Table 5.** Western City District Plan**Sustainability, landscape, efficiency and resilience**

<p><b>W15:</b> Increasing tree canopy and delivering green grid connections</p>	<p><b>O30:</b> Urban tree canopy cover is increased</p>	<p>The site is not identified as having any particular biodiversity values. The urban design concept, deep soil analysis and conceptual landscape plans confirm that the planning proposal would provide opportunity for improved large tree planting along the rear of the site and Hoxton Park Road frontage.</p> <p>Existing trees are retained where possible, however the footprint of the basement car park will impact the viability of numerous trees. Such impacts will necessitate the removal of 26 trees, however 35 canopy trees will be retained on the site, in addition to new tree planting that will form part of future landscaping arrangements on the site.</p> <p>This will subsequently retain substantial tree canopies, particularly within the northern and southern setbacks, which will both soften the future development from surrounding sites and Hoxton Park Road and enhance the urban environment.</p>
<p><b>W18:</b> Delivering high quality open space</p>	<p><b>O31:</b> Public open space is accessible, protected and enhanced</p>	<p>The proximity and availability of high quality public open space is a key consideration in the proposal to increase density in this location. The site is conveniently located within walking distance of Ireland Park and Eloura Nature Reserve. This large, consolidated parcel of Public Open Space follows the Cabramatta Creek and provides over 100 hectares of greenspace for residents.</p>
<p><b>W19:</b> Reducing carbon emissions and managing energy, water and waste efficiently</p>	<p><b>O33:</b> A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change</p>	<p>The proposal will enable transit oriented development which leverages an existing frequent bus service. While some parking will be accommodated on site, the convenience of the existing public transport service will reduce reliance on private car ownership.</p> <p>There is scope to adopt modern building technologies to meet the relevant sustainability targets at construction stage. Future development will be subject to BASIX provisions and other local sustainability provisions set by Liverpool City Council.</p>

**Table 5.** Western City District Plan

<b>W20:</b> Adapting to the impacts of urban and natural hazards and climate change	<b>O37:</b> Exposure to natural and urban hazards is reduced	<p>The subject site is partially bushfire prone on the western edge of the site, however the majority of the site and propose site entry points are not bushfire prone. It is proposed that a bushfire impact assessment be prepared at DA stage.</p> <p>The site is clear of flooding impact, with the exception of a small portion of no 260 Memorial Avenue. The concept scheme has been sited to avoid any flood prone land and flood free ingress and egress can be readily achieved.</p> <p>It is not anticipated that the proposal would result in any increased exposure to natural hazards or any unacceptable climate outcomes.</p>
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**Q4. Is the planning proposal consistent with a council Local Strategic Planning Statement (LSPS) that has been endorsed by the Planning Secretary or GSC, or another endorsed local strategy or strategic plan?**

The relationship between the planning proposal and applicable local plans and strategies has been considered in relation to whether the planning proposal has strategic merit.

**Connected Liverpool 2040: Liverpool Local Strategic Planning Statement**

The Connected Liverpool 2040 Local Strategic Plan (LSPS) provides for a land use vision that will guide the future growth and development across the Region to 2040.

Notably, the proposed directly responds to planning priority 7, which aims to provide housing choice for different needs, with density focussed in the city centre and centres well serviced by public transport. It supports productivity planning priorities 10 and 11 for Liverpool innovation precinct and local business and tourism growth (providing accessible workforce and customers) and supports other planning priorities in that it does not undermine the objectives for employment lands, the airport, or environmental priorities.

The table below demonstrates that the proposal is consistent and aligns with many of Liverpool's planning priorities and actions identified within the LSPS. The proposal supports all the priorities, either directly or indirectly, and does not undermine any.

**Table 6.** Liverpool LSPS Consistency

Action	Response of the Planning Proposal
<b>Vision: 'A vibrant place for people that is community focused, walkable, public transport-oriented, sustainable, resilient and connected to its landscape. A place that celebrates local diversity and history, and is connected to other Sydney centres. A jobs-rich city that harnesses health, research, education, innovation and growth opportunities to establish an inclusive and fair place for all'</b>	

**Table 6. Liverpool LSPS Consistency**

Response: The proposal will give effect to the vision of the LSPS as it leverages an opportunity to provide a housing for the community in a location along a key transport corridor. Walkability will be improved for site users and the broader neighbourhood by the provision of through site connections. Residents will benefit from the services on offer, jobs, healthcare and opportunities within the existing Liverpool Centre and future Western Sydney Aerotropolis.

**Connectivity – Our Connections**

<b>Planning Priority 1:</b> Active and public transport reflecting Liverpool's strategic significance	<p>The proposal for increased housing in this location is consistent with the planning priority for active and public transport. It will increase the proportion of housing within short walking distance or multiple public transport services, close to the Liverpool CBD and therefore result more non-car travel.</p> <p>As shown in the urban design concept plan the proposal will also facilitate two new through-site pedestrian links through the long street block, improving active transport movement from the surrounding areas to bus services and neighbourhood shops and services.</p>
<b>Planning Priority 2:</b> A rapid smart transit link between Liverpool and Western Sydney International Airport /Aerotropolis	<p>The proposal, involving increased population in this location, immediately adjacent to the Hoxton Park Road transport corridor, would contribute to improved viability for a rapid transit link between Liverpool CBD and the Western Sydney Airport, consistent with the planning priority.</p>
<b>Planning Priority 3:</b> Accessible and connected suburbs	<p>The site is highly accessible to multiple public transport services providing fast access into the Liverpool CBD. Consistent with his planning priority the proposal will facilitate two new through-site pedestrian links through the 460m long street block, improving accessibility in the local area and contributing to a more connected suburb.</p>
<b>Planning Priority 4:</b> Liverpool is a leader in innovation and collaboration	<p>The proposal for increased building height and density in this location, close to the Liverpool CBD will provide for more housing for people working, researching, meeting and innovating in the Liverpool CBD and Innovation Precinct. The proposal provides for additional housing in location that supports, but does not undermine innovation and enterprise precincts, and as such is consistent with and supports this planning priority.</p>

**Liveability – Our Home**

<b>Planning Priority 5:</b> A vibrant, mixed-use and walkable 24-hour City Centre with the Georges River at its heart	<p>The proposal is consistent with this planning priority. The proposed increases in building height and residential density in this location will increase the resident population that frequent Liverpool City Centre by public transport, contributing to its vibrancy and activity as a walkable 24 hour city, without being reliant upon cars to access the centre.</p>
<b>Planning Priority 6:</b> High-quality, plentiful and accessible community	<p>The proposal is consistent with this planning priority for improved facilities and spaces. The site is located within short walking distance of two local parks and the Maxwell</p>

**Table 6. Liverpool LSPS Consistency**

facilities, open space and infrastructure aligned with growth	<p>Creek green corridor. The proposal improves the viability and attractiveness for the site and the surrounding area to the north to be developed (as intended by the 2008 LEP land zoning) for high density and medium density residential, providing funding for planned local community facilities and local park embellishments.</p> <p>The proposal will also facilitate through-site pedestrian links and the urban design concept plan envisions small neighbourhood shops and cafes lining public spaces at these points. These privately provided and maintained, but publicly accessible spaces, will complement the local open spaces, social and recreation facilities in the local area.</p>
<b>Planning Priority 7:</b> Housing choice for different needs, with density focused in the City Centre and centres well serviced by public transport	<p>The proposal is consistent with this planning priority for housing choice and meeting housing needs. The proposal will increase housing density in a transport-centred location that is highly serviced by public transport and highly accessible to the Liverpool City Centre.</p> <p>Locally, it will enable housing diversity in an area which is currently substantially low density residential housing. The proposed increase in apartment type housing is consistent with the planning intention the LEP 2008 for a range of high and medium density housing types within the T-way station catchments.</p> <p>The proposal will ensure viability to provide an affordable alternative to the Liverpool CBD for apartment housing, in a form that is appropriate to the context and without significant adverse effect on the surrounding area. It improves the provision of lift access to dwellings and enables greater flexibility for a mixture of one, two and three bedroom apartments within ADG parameters.</p>
<b>Planning Priority 8:</b> Community-focused low-scale suburbs where our unique local character and heritage are respected	<p>The proposal supports (and does not undermine) this planning priority. There are no heritage items or conservation areas within the immediate vicinity of the site. The subject site is currently zoned for high density housing in a low-mid-rise form of up to 15 metres (4 storeys). The proposal is consistent with the approach of consolidating apartment housing in suitable locations focused on public transport, which in turn, enables suburbs with unique character or heritage value to be maintained as low rise.</p> <p>The form and layout envisioned by the urban design concept plan for the mid-rise buildings, with neighbourhood retail convenience, cafes and meeting spaces will create new community-focused living for residents within the site and the surrounding area.</p>
<b>Planning Priority 9:</b> Safe, healthy and inclusive places shaping the wellbeing of the Liverpool community	<p>The proposal will enable development of a large vacant site and facilitate through-site pedestrian links and public spaces in a manner that would improve community wellbeing. The urban design concept plan proposes inclusive pedestrian paths in wide spaces that encourage walking around the neighbourhood, with the safety of surveillance provided by balconies and neighbourhood shopfronts overlooking shared spaces. The proposal</p>

**Table 6. Liverpool LSPS Consistency**

	facilitates an outcome more consistent with this priority than under the current controls.
<b>Productivity – Our Jobs</b>	
<b>Planning Priority 10:</b> A world-class health, education, research and innovation precinct	The proposal supports this planning priority in so far that it provides for additional housing for health workers, researchers and students in close proximity to the Liverpool Innovation Precinct. Increasing housing in this existing residential location complements and does not undermine innovation and enterprise precincts.
<b>Planning Priority 11:</b> An attractive environment for local jobs, business, tourism and investment	The proposal supports this planning priority in so far that it provides for additional population to be housed within close proximity and convenient access to the Liverpool City Centre, providing workers and customers for a thriving CBD that contributes to the attractiveness of investment in Liverpool. Increasing housing in this existing residential location improves and does not undermine the value of providing retail, commercial and cultural spaces within the Liverpool CBD.
<b>Planning Priority 12:</b> Industrial and employment lands meet Liverpool's future needs	The proposal supports the role of Liverpool's employment lands for industrial and enterprise. It provides for additional housing for workers and small business starters close to the large Prestons Precinct. Providing for increased residential housing concentrated in suitable locations such as the subject site assists in reducing pressure on employment lands. The site is an existing residential zoned area and the proposal does not undermine employment lands objectives.
<b>Planning Priority 13:</b> A viable 24-hour Western Sydney International Airport growing to reach its potential	The site is approximately 15km from the Western Sydney Airport. In this location the proposal does not undermine the planning priority for the Aerotropolis, which is accessible within 20 to 25 minutes by car. The site is located immediately adjacent to the Hoxton Park Road transport corridor, and increasing residential density would contribute to improved viability for a rapid transit link between Liverpool CBD and the Western Sydney Airport, which in turn would make living in this location highly suitable for people working in the Aerotropolis as well as Liverpool CBD and Prestons.
<b>Liveability – Our Home</b>	
<b>Planning Priority 14:</b> Bushland and waterways are celebrated, connected, protected and enhanced	The site does not contain remnant bushland, waterways or riparian vegetation and as such the proposal does not undermine this planning priority. While the basement carpark footprint will necessitate the removal of some trees, the submitted arboricultural impact assessment demonstrates that the majority of existing trees will be retained, regardless of the increased density and whether the buildings are three stories or six storeys. Increased people in this location would increase the active use of the nearby Maxwells Creek open space corridor and the value of this green space to a larger community.

**Table 6.** Liverpool LSPS Consistency

<b>Planning Priority 15:</b> A green, sustainable, resilient and water-sensitive city	The proposal is consistent with this planning priority, increasing housing in a highly accessible location within short walking distance or multiple public transport services, close to the Liverpool CBD. It is consistent with the principles of Transport Oriented Development that reduces reliance on car travel and Vehicle Kilometers Travelled, reducing carbon and energy use and improving sustainability. The trees proposed to be both retained and planted will assist in mitigating urban heat from the buildings and Hoxton Park Road.
<b>Planning Priority 16:</b> Rural lands are protected and enhanced	The site is an existing residential zoned area and the proposal does not undermine the protection of rural lands. Increasing housing in suitable locations, such as the subject site, assists in reducing pressure on rural lands and in this regard the proposal supports this planning priority.

**Liverpool Local Housing Strategy 2020**

The Liverpool Local Housing Strategy includes opportunities and constraints mapping, which overlays cadastral information to analyse the most suitable locations for new housing. The results reveal that the greatest opportunities for housing are in the southern part of the Liverpool City Centre and land immediately south.

The strategy sets four key housing priorities for the Liverpool LGA over the next 20 years: diversity, affordability, location and quality/sustainability. The proposal strongly aligns with these four priorities and provides the opportunity to facilitate some of the recommendations outlined in the strategy. This is summarised in the table below.

**Table 7.** Liverpool Local Housing Strategy 2020 Consistency

Priority	Response of the Planning Proposal
<b>Diversity</b> Ensuring there is a sufficient range of diverse housing types to meet the changing needs of its residents	<b>Consistent</b> The planning proposal will facilitate a mid-rise mixed-use residential apartment built form outcome, with opportunity to provide a range of apartment sizes to suit a diverse range of user groups. There is opportunity to provide larger apartment formats to suit families or dual key apartments, should there be market demand at the time of development.  The proposal will accommodate a minimum of 10% adaptable dwellings, however, may also target other liveable housing standards at DA stage. Given the proximity to transport and the Liverpool CBD, the site also provides the opportunity to house students and key workers.
<b>Affordability</b> Encouraging greater housing affordability in the LGA to ensure existing community members can remain within	<b>Consistent</b> The proposal is for built form controls, appropriate to the location, which will enable the feasible uptake of the R4 High Density zone and delivery of housing products which meets the intention of the zone. Ultimately, this planning

Table 7. Liverpool Local Housing Strategy 2020 Consistency	
their community and that essential workers in the locality can access appropriate housing	<p>proposal will enable the orderly, economic and sustainable use and development of land.</p> <p>Apartment developments provide an efficient land use which is inherently more affordable than detached housing products. This proposal does not preclude opportunities for future affordable housing developments or the application of the <i>State Environmental Planning Policy (Housing) 2021</i>.</p>
<b>Location</b> Providing opportunities for increased housing densities in close proximity to transport and services whilst enhancing amenity through retaining local character, activating the CBD and creating high-quality, inclusive urban environments	<b>Consistent</b> The proposal puts forward an appropriate density in a location which is well serviced by existing public transport. The site is approximately 1.5km and a 10-12 minute bus trip to the Liverpool City Centre which provides excellent amenity in terms of jobs, services, retail and cultural activity.
<b>Quality and Sustainability</b> Encouraging good built form outcomes and sustainability in housing and neighbourhood design	<b>Consistent</b> The urban design study and concept plan demonstrate that the proposal is capable of achieving compliance with the objectives and controls of the NSW Apartment Design Guideline, which is a key indicator of quality urban design. The proposal will result in an improved urban environment through the landscaping embellishment along Hoxton Park Road, which will be integrated with through site pedestrian connections.  A future development application will be subject to BASIX provisions and the Liverpool DCP sustainability provisions. There are several opportunities to explore site specific sustainability initiatives at DA stage

The Local Housing Strategy recognises that it is appropriate to consider planning proposals for residential uplift in appropriate locations and provides locational criteria for the consideration of additional new housing. The subject site location satisfies the criteria for the proposal to increase housing density, through increased building height and FSR standards as follows:

Table 8. Satisfaction of Locational Criteria for Increased Housing	
Criteria	Comment
1. Areas rezoned for increased housing density should be located within 800m of major transport nodes	<b>The site satisfies this criterion.</b> It is located within 200 metres of the 'Maxwells' T-way station, on the section the major Hoxton Park Road transport corridor where five bus routes converge heading into Liverpool CBD, including the rapid T80 regional bus service.

**Table 8. Satisfaction of Locational Criteria for Increased Housing**

	All parts of the site are within 200 metres of five bus stops providing a high frequency of service approximately every 10 minutes into Liverpool, and involving a trip of 10-12 minutes to the City Centre.
2. New housing should have good access (within 400m) of open space, employment opportunities and retail facilities	<p><b>The site satisfies this criterion.</b> It is located within 400m walk to two local parks to the north and south and within 100m of the large Maxwell Creek open space corridor to the west.</p> <p>The site is within a short walk, less than 400m to the Maryvale Avenue neighbourhood shops and medical centre, and less than 400m to the Flowerdale Road Local Centre and Aldi Supermarket.</p> <p>In addition to the fast access to employment in the Liverpool CBD, the site is within 400m walk of the Hoxton Park Road B6 Enterprise Corridor Zone (the eastern end of Prestons employment precinct).</p>
3. New housing should be located and designed to preserve the character of existing local neighbourhoods, areas of high ecological value and existing heritage	<p><b>The proposal satisfies this criterion.</b> The urban design study demonstrates that the site is positioned and capable of the increased FSR and building heights in such a way that ADG amenity and separation criteria is satisfied and there is no additional shadow impact on surrounding residential properties.</p> <p>The site and immediate surrounding area are currently zoned for a planned change in character. The proposal would not change the character of any existing neighbourhoods that are planned to retain their existing character, nor would it erode any areas of high ecological or heritage value.</p> <p>The proposal provides for a suitable transition in height from 6 storeys along Hoxton Park Road, down to 3-4 storeys on Dale Avenue and then 2 storeys further north.</p>
4. New housing must be supported by infrastructure improvements including the provision of affordable housing where appropriate	<p><b>The proposal satisfies this criterion.</b> The existing urban land is highly serviced by public transport and road access, as well as essential infrastructure. The proposal would enable the viable development of the site and funding towards augmentation and upgrade of social infrastructure, open space and recreation facilities. Increased housing in this location would assist with general housing affordability.</p>

**Q5. Is the planning proposal consistent with any other applicable State or Regional studies or strategies?****Future Transport 2056**

The site is in a positive location for homes and jobs in terms of transport and accessibility, with existing high-frequency bus services accessible less than 200 metres from the site boundary.

The PP is consistent with the objectives of Future Transport 2056, as it facilitates an improved urban design outcome and provides increased residential density close to public transport, jobs and local services. This can help to promote the use of public transport and reduce reliance on private motor vehicles. Additionally, both a Traffic Impact Assessment and an additional statement prepared by Traffix concludes that the proposal would not result in a decreased level of service for intersections near the site.

**Q6. Is the planning proposal consistent with applicable SEPPs?**

The Planning Proposal would address and/or be consistent with all relevant State Environmental Planning Policies (SEPPs). Consideration of relevant SEPPs is provided below in the table.

**Table 9. State Environmental Planning Policies**

SEPP	Consistency	Comments
SEPP (Biodiversity and Conservation) SEPP 2021	Consistent	The Planning Proposal does not inhibit the application of the Biodiversity and Conservation SEPP. The proposal is not located in an environmentally sensitive area. Likely future tree removal is addressed by the submitted arboricultural impact assessment and will be further detailed as part of a future arboricultural assessment as part of the DA process.
SEPP (Exempt and Complying Development Codes 2008	Consistent	This SEPP provides State-wide development controls and standards for 'exempt' and 'complying' development. This Planning Proposal does not inhibit the application of Exempt and Complying Development Codes SEPP.
SEPP (Resilience and Hazards) SEPP 2021	Consistent	The site is already zoned for residential uses and the proposal does not seek a change of use. A preliminary site investigation has been undertaken by EI Australia which confirms there is low to moderate potential for contamination to exist on site. More detailed investigations

**Table 9.** State Environmental Planning Policies

SEPP	Consistency	Comments
		can be undertaken at the appropriate time to reduce any potential contamination risks during the construction phase.
SEPP (Housing) 2021	Consistent	This SEPP provides for development pathways and incentives to provide for diverse forms of housing, including affordable rental housing and seniors housing. The Planning Proposal does not inhibit the application of Housing SEPP.
SEPP (Industry and Employment) 2021	Consistent.	This SEPP provides a State-wide framework for the assessment and consideration of advertising and signage proposals. The Planning Proposal does not inhibit the application of the Industry and Employment SEPP.
SEPP (Transport and Infrastructure) 2021	Consistent	<p>This SEPP identifies development for which State agency consultation or concurrence must be required, and also provides for development which can be undertaken by infrastructure agencies without development consent. This Planning Proposal does not inhibit the application of the Transport and Infrastructure SEPP.</p> <p>Access will be provided to the site via Dale Avenue. A Traffic Impact Assessment and an addendum statement have been prepared to support this proposal. Further details are provided in Section C of this document.</p>
State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development	Consistent	The future DA will be subject to SEPP 65 provisions and the Apartment Design Guide. The concept plan has been tested against key ADG performance criteria. Subject to detailed design, the project can readily achieve ADG and SEPP 65 compliance.
State Environmental Planning Policy (Building)	Consistent	The future DA will be subject to SEPP (BASIX). A Basix certificate can be

**Table 9. State Environmental Planning Policies**

SEPP	Consistency	Comments
Sustainability Index: BASIX) 2004		obtained as part of the future detailed design.
SEPP (Primary Production) 2021	Not Applicable	
SEPP (Resources and Energy) 2021	Not Applicable	
SEPP (Planning Systems) 2021	Not Applicable	
SEPP (Precincts – Eastern Harbour City) 2021	Not Applicable	
SEPP (Precincts – Central River City) 2021	Not Applicable	
SEPP (Precincts – Western Parkland City) 2021	Not Applicable	
SEPP (Precincts – Regional) 2021	Not Applicable	

Based on the above, it is considered that the planning proposal is consistent with relevant State Environmental Planning Policies, where applicable.

**Q7. Is the planning proposal consistent with applicable Ministerial Directions under 9.1 of the Act (previously referred to as s117 directions)?**

The Planning Proposal is consistent with all relevant 9.1 Directions. The assessment of these is outlined in the table below.

**Table 10. Section 9.1 Ministerial Directions**

Clause	Direction	Consistent	Comments
1. Planning Systems			
1.1	Implementation of Regional Plans	Consistent.	Consistency with Greater Sydney Region Plan - A Metropolis of Three Cities is demonstrated in Section e of this report.
1.4	Approval and Referral Requirements	Consistent.	The proposal does not include consultation, referral or concurrence provisions, nor clarifies any

Table 10. Section 9.1 Ministerial Directions

Clause	Direction	Consistent	Comments
			development as designated development.
1.5	Site Specific Provisions	Consistent.	The Planning Proposal does not propose any unnecessarily restrictive site-specific planning controls, and will use standard built form controls to amend the LLEP 2008.
3. Biodiversity and Conservation			
3.2	Heritage Conservation	N/A	The site is not heritage listed or in the immediate vicinity of a heritage item.
4. Resilience and Hazards			
4.3	Planning for Bushfire Protection	Consistent.	The site is partially bushfire prone on the western edge of the site. The majority of the site and propose site entry points are not bushfire prone. However, due to the minor nature of the impact across the large site, it is proposed that a bushfire impact assessment be prepared at DA stage.
4.4	Remediation of Contaminated Land	Consistent.	The land is zoned for residential uses and a change of use is not sought. A preliminary site investigation (and further reporting/remedial action) can be undertaken at DA stage.
4.5	Acid Sulfate Soils	N/A	The site is not identified as being impacted by Acid Sulfate Soils.
5. Transport and Infrastructure			
5.1	Integrating Land Use and Transport	Consistent.	The proposal will enhance access to jobs, and services through connections to the existing bus services. The increased intensity will strengthen the viability of existing public transport services in the area.
5.2	Reserving Land for Public Purposes	Consistent.	The proposal does not contain any land that has been reserved for a public purpose and no requests have been made to reserve such land.
6. Housing			
6.1	Residential Zones	Consistent.	The site is considered suitable for residential uses as demonstrated by the existing R4 High Density zone adopted by Liverpool City Council. The proposal does not include a change of use and seeks to maintain the R4 zone. The proposal will make more efficient use of existing infrastructure and services.

### 3.3.3 Section C – Environmental, Social and Economic Impact

**Q8. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?**

The project site is largely vacant with the exception of three dwellings and scattered trees along the rear property boundary and adjoining sites. The site is not identified as having biodiversity value on the NSW Biodiversity Values Map and there is no evidence to suggest any critical habitat, threatened species or ecological communities are present on site. As an island block within an urban setting, the vegetation on site is detached from any natural areas.

Further investigations are expected to be limited to an arboricultural investigation at the DA phase to ensure the adjoining trees can be protected as the site is developed. Based on the above, critical habitat, threatened species or ecological communities are unlikely to be adversely affected as a result of the proposal.

**Q9. Are there any other likely environmental effects as a result of the Planning Proposal and how are they proposed to be managed?**

**Built Form and Massing**

The proposed land use controls will provide for the desired development typology sensibly located in response to the various site constraints and opportunities.

The concept scheme prepared by Tony Owen Partners has been prepared with consideration for surrounding development and the intended future character of the area. The proposal establishes a height control which is appropriate along a key transport corridor. Although there has been limited uptake of the R4 high density zone in immediately surrounding properties, the area will transition over time to a higher density urban environment which has been observed in other areas along the Hoxton Park Road Corridor.

The massing has been tested to ensure a future scheme can be compliant with the ADG and consistent with the objectives of Liverpool Development Control Plan. This includes:

- Minimum front, side and rear setbacks of 6 metres
- Internal building separation ranging from 15-21 metres
- Ability to provide generous deep soil planting and communal open space
- Ability to achieve adequate solar access and cross ventilation to apartments
- Minimal overshadowing impacts, with the majority of shadow being concentrated on Hoxton Park Road

The proposed built form offers amenity outcomes which extend beyond the users of the site. This includes through site pedestrian links which will connect people with the bus service. Ground floor retail uses and high quality communal open space within the site will provide a meeting place for residents and encourage social interaction, activation and passive surveillance. Landscape treatments, tree retention, tree planting and greening along the Hoxton Park Road corridor will help soften the urban environment and enhance the pedestrian experience.

**Traffic and Parking**

A Traffic Impact Assessment (TIA) has been prepared by Traffix to review the proposed access arrangements and determine the impacts of the proposal on the surrounding road network. The TIA addresses existing and proposed traffic generation, trip distribution, intersection performance and public transport. This document is also supported by a supplementary statement prepared by Traffix following additional comments from Council.

**Parking**

The report includes a calculation of parking requirements based on the proposed concept scheme of 312 dwellings and ground floor retail. It is noted this figure is indicative only and may be subject change following detailed design and DA submission, however it has been adopted as the base case for the purpose of this assessment. To meet the minimum parking rates set out in Liverpool DCP, a total of 561 parking spaces would be required.

An indicative basement layout has been provided within the concept plan set, however detailed basement design shall be resolved at DA stage. The site is capable of providing on site basement parking and any proposed departure from DCP parking rates would require merit based justification during a DA process. Accessible parking, bicycle parking and waste collection can also be accommodated on site. Parking requirements may be subject to change based on proposed development yield and apartment mix.

**Access and circulation**

Two separate entry and exit driveways are proposed from no 20 and 48 Dale Avenue. This approach has been subject to preliminary consultation with TfNSW. TfNSW has indicated this approach is preferred as it avoids additional access points from Hoxton Park Road and will help distribute traffic amongst the local road network. TfNSW also advised that access from Hoxton Park Road would not be supported, and that the introduction of a new signalised intersection to the site would result in irreversible traffic impacts, noting that the site geometry is of insufficient width to dedicate required land to TfNSW for signal infrastructure. Both access driveways provide ingress and egress, allowing vehicles to enter and exit the site in a forward direction.

The additional commentary by Traffix advises that direct access points to the site from Maryvale and Dale Avenues would be situated too close to Hoxton Park Road; to prevent queuing onto Hoxton Park Road, any such access/egress would be restricted to 'left in/left out' arrangements, which would result in detours being made through Maryvale and Dale Avenues to enable access via a left-turn entrance point from Memorial Avenue Street access point.

**Proposed trip generation**

Traffic generation from the proposal has been assessed by Traffix. The TIA identified that the proposal would generate the following vehicular trips per hour (VTPH) in the peak morning and evening periods

Residential:

- 59 VTPH during the morning peak (12 in, 47 out)
- 47 VTPH during the afternoon peak (37 in, 10 out)

Retail:

- 9 VTPH during the morning peak (7 in, 2 out)
- 7 VTPH during the afternoon peak (1 in, 6 out)

Traffix has assessed the impact of the additional trip generation on the surrounding intersections, the key intersections being Hoxton Park Road/Memorial Avenue to the west of the site and Hoxton Park Road/Maryvale Avenue to the east. With consideration for the proposed trip generation, intersection modelling reveals that both intersections will maintain an A grade level of service. Therefore, the additional traffic generation proposed is expected to have minimal impacts on the surrounding road network, and as such, there are no road improvements or intersection upgrades required.

#### Green Travel

The proposal is supported by a Green Travel Plan, prepared by Traffix. The Plan outlines alternative green travel modes and strategies to encourage alternative transport modes which shifts away from a reliance on private vehicles. Recommendations include:

- Provision of bicycle parking and end-of-trip facilities.
- Develop a forum to facilitate car-pooling.
- Develop initiatives and incentives for the use of sustainable modes of transport.
- Maintain an open channel of communication with Council to maintain / improve existing sustainable infrastructure in the local area.
- Provide a copy of a Transport Access Guide at prominent locations on site.

These recommendations will be considered and incorporated at detailed design and DA stage.

#### **Waste Collection**

The proposal is supported by an Operational Waste Management Plan (OWMP), prepared by Elephant's Foot.

The report provides an analysis of the potential waste generation during the operational phase of the building, assuming a dwelling yield of 312 apartments and 7 retail tenancies. With consideration for the Liverpool Development Control Plan 2008, calculations have been undertaken to confirm the total waste generation and bin requirements and advice has been provided on potential waste collection procedures.

#### Residential

The residential component is forecasted to produce some 37,440L of general waste, 37,440L of recycling and 7800L of organic food waste per week. Each building core will be supplied with a dual chute system, comprising of a waste chute and a recycling chute with access provided on each residential level. Waste will discharge into 1100L bins to a chute discharge room. Bins will be collected weekly by Council in accordance with the collection schedule. Waste vehicles will collect waste from a bin holding room and enter and exit the site in a forward direction. Bulky waste storage areas are also to be provided.

**Retail**

The retail component is expected to generate some 4,720L general waste and 4971.5L recycling per week. The retail tenancies will be responsible for their back of house waste and recycling management during daily operations. A private waste collection contractor will be engaged to service the retail waste and recycling bins per an agreed schedule. Again, the waste vehicle will enter the site and collect waste from the retail holding room and exit the site in a forward direction.

The basement, access paths and clearances to the Residential Bin Holding Room must be able to accommodate a rear lift HRV per AS2890.2-2002 and a minimum head-height clearance of 3.9 metres. Detailed basement design, including vehicle swept paths and waste collection infrastructure to Council's DCP standards will be undertaken at DA stage. Waste generation and collection procedures will be impacted by the final dwelling yield and retail/residential mix, as such collection procedures and waste design will be undertaken in detail at DA stage.

**Flooding**

The proposal is supported by a Desktop Flood Study, prepared by SGC. The study confirms that the majority of the site is not flood affected except for a small corner of the site at 260 Memorial Avenue, which is only partially affected by the PMF event. This flood affectation does not impact on the planning proposal and is considered minor.

The concept plans show the proposed development footprint clear of any flood prone land. Indicative site access points (Dale Avenue) are also clear of any flooding risk and the road network provides several flood free evacuation routes, should a major flooding event occur.

The planning proposal does not propose a change of use and will not result in any detrimental effect to flood behaviour or increase the flood risk for the property or adjoining residents. Future development, subject to more detailed design development for a development application, is capable of satisfying Clause 5.21 Flood Planning in Liverpool Local Environmental Plan 2008 and relevant DCP flood related development controls.

**Acoustic**

The proposal is supported by an Acoustic Assessment, prepared by Acouras Consultancy. The report provides an assessment of existing noise conditions and future noise conditions as a result of the development, primarily from traffic. The report includes recommendations for construction materials to help mitigate noise impacts for future residents. With regard to proposed noise conditions as a result of the development, additional mitigation measures will need to be explored to help mitigate increased noise exposure to affected residents along Maryvale Ave (up to Dale Ave) and along Dale Ave for the types of acoustic treatment to the properties, which may include one or a combination of the following treatments:

- Upgrade acoustic insulation (50-75mm thick) in the cavity of external wall and roof.
- Upgrade existing façade glazing to a laminated glass.

- Provide fresh air ventilation and/or air-conditioning to allow windows to be closed during peak times.

As the nature and scale of the proposed development is indicative only at this stage, the acoustic impacts may vary once detailed design and DA preparation commence. As such, it is reasonable to explore noise mitigation measures at DA stage.

Notwithstanding, provided that acoustic measures are implemented as per the recommendations of a suitably qualified consultant, the noise from the proposed development is predicted to comply with acoustic requirements of the Liverpool City Council DCP, EPA noise limits, Department of Planning (SEPP), BCA Part F5 and relevant Australian standards.

#### **Geotechnical**

The proposal is supported by a Desktop Geotechnical Study, prepared by EI Australia. The report provides an overview of potential subsurface ground conditions which may be encountered as part of the development. Ground conditions may include fill, residual silty clay soils and low strength shale. Groundwater is anticipated to be encountered between 1 and 4m below existing ground level.

The report provides recommendation on measures which should be undertaken to facilitate the development. This includes dilapidation surveys, a preliminary excavation assessment, excavation monitoring, the use of appropriate retaining systems and groundwater wells during construction.

The report recommends detailed geotechnical subsurface investigation prior to final design to determine the site specific subsurface profile and geotechnical parameters for footing design. This can reasonably be undertaken at a later project stage when the preferred design is confirmed.

#### **Contamination**

The proposal is supported by a Preliminary Site Investigation, prepared by EI Australia. The report provides a review of historic site uses and confirms that the likelihood of site contamination is low-moderate.

95-145 Hoxton Park Road had been vacant up to 1947 (at least) and by 1965 had been partially developed for residential purposes. In the early 2000s, residential structures were demolished and the site was redeveloped as part of the Hoxton Park Road upgrade. Redevelopment activities included the stripping of fill soils followed by construction of the new road within the southern boundary of the site, and re-turfing across the remainder of the area.

The surrounding land was originally made up of rural residential and agricultural properties which transitioned to low density residential over the survey period. There is no evidence to suggest significant site contamination. As such, the report concludes that there is low potential for contamination to be present at 95-145 Hoxton Park Road and low to moderate potential for contamination to be present within 20 and 44 Dale Avenue (outside of the scope of the planning proposal).

Additional investigations may be undertaken as necessary, and an unexpected finds protocol adopted during the detailed design and construction phase of the project.

**Q10. Has the planning proposal adequately addressed any social and economic effects?****Social Impacts**

The proposal is supported by a Social Impact Assessment, prepared by Hill PDA. The assessment includes an analysis of the existing social environment. It aims to identify both positive and negative social impacts associated with the proposed development, while also suggesting mitigation measures to maximise social benefits and minimise negative impacts to the community.

When considering the increased demand for social infrastructure arising from the proposal, the increased demand for open space, community facilities, long day care and OSHC is negligible. This suggests there is significant capacity in adjoining infrastructure to accommodate the increased number of residents.

The assessment includes general recommendations around access, amenity and community health and safety which can reasonably be implemented at DA stage. The assessment notes that the proposal would make an important contribution to the delivery of housing in Liverpool and is consistent with the LSPS. The proposed bedroom mix would improve housing diversity in the Liverpool LGA and responds to the housing need of the LGA by increasing the supply of smaller, more affordable dwellings. There is also opportunity to create some 16 new jobs on site through the provision of commercial floor space.

The report concludes that the Planning Proposal would have an overall benefit to the socio-economic environment. Any negative impacts of the Planning Proposal can be successfully managed with the implementation of the mitigation measures outlined in sections 5.3 and 6.0 of the report, which can be reasonably implemented at DA stage.

**3.3.4 Section D – State and Commonwealth Interests****Q10. Is there adequate public infrastructure for the Planning Proposal?**

The site is located in an existing urban area and is serviced by all relevant utilities. It is unlikely that there are significant capacity constraints in the existing network which would prevent the modest intensified use of the site for a multi-level hotel and restaurant.

The proposal will increase pedestrian movement along the front of the site and to the nearby T-way bus station and footpath infrastructure. Need for any upgrade to local utilities such as electricity, can be addressed at a future development stage.

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

At this stage, the views of relevant State and Commonwealth authorities have not been obtained. This will occur following Gateway Determination.

**3.4 Part 4 – Mapping**

**Appendix 1** of the planning proposal report provides details of the mapping tiles proposed.

### 3.5 Part 5 – Community Consultation

Normal consultation processes will occur following lodgement. It is expected that consultation will occur in line with DPE's Community Participation Plan, with the Planning Proposal to undergo 28 days public consultation period following gateway approval.

### 3.6 Part 6 – Project Timeline

The anticipated timeframe for the completion of the planning proposal, based on the benchmark timeframes for a standard planning proposal, is as follows:

Table 11. Project Timeline	
Milestone	Date
Submission of revised Planning Proposal	December 2022
Council decision	March 2023
Gateway determination	May 2023
Pre-exhibition	June-July 2023
Commencement and completion of public exhibition	August 2023
Consideration of submissions	September 2023
Post-exhibition review	October 2023
Submission to Department for finalisation	November 2023
Gazettal of LEP amendment	December 2023

## 4. Conclusion

This planning proposal for land known as 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue, Liverpool NSW has been prepared in accordance with:

- Section 3.33 of the *Environmental Planning and Assessment Act 1979* (the Act).
- The NSW Department of Planning and Environment's '*Local Environmental Plan Making Guideline*'.
- Relevant Section 9.1 Directions.

The proposal provides a full justification for the changes consistent with the guidelines and requirements for plan amendments. The justification demonstrates that the proposal intention to amend the Liverpool LEP (LLEP) 2008 to increase the maximum height of buildings from 15 metres to 20.5 metres and increase the FSR control from 1:1 to 1.5:1 has strategic merit and site-specific merit in the particular circumstances of this location.



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## LIVERPOOL CITY COUNCIL

## LOCAL PLANNING PANEL REPORT

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<b>Item no:</b>	3
<b>Application Number:</b>	RZ-3/2022
<b>Proposed Development:</b>	Planning proposal to amend HOB and FSR of the LLEP 2008 relating to land at 93-145 Hoxton Park Road, 51 Maryvale Avenue & 260 Memorial Avenue, Liverpool NSW
<b>Property Address</b>	93-145 Hoxton Park Road, 51 Maryvale Avenue & 260 Memorial Avenue, Liverpool
<b>Legal Description:</b>	Lot 53-80 DP 1154816 Lot 2 DP 1050030
<b>Applicant:</b>	ABA Estate PTY LTD
<b>Land Owner:</b>	91-143 Hoxton Park Road Liverpool – ABA Estate PTY LTD 260 Memorial Avenue Liverpool – NSW Trustee and Guardian 145 Hoxton Park Road Liverpool and 51 Maryvale Avenue Liverpool – Transport for New South Wales
<b>Cost of Works:</b>	Not Applicable
<b>Recommendation:</b>	Proceed to Gateway determination with minor changes as outlined in section 8 of this report.
<b>Assessing Officer:</b>	Stephen Peterson

## 1. EXECUTIVE SUMMARY

In July 2022, Mecone submitted a planning proposal prepared on behalf of ABA Estate Pty Ltd to amend development standards within the *Liverpool Local Environmental Plan 2008* (LLEP 2008), for land at 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue, Liverpool, to facilitate the development of six residential flat buildings. The proposal as lodged sought to amend *Liverpool Local Environmental Plan 2008* (LLEP 2008) in the following manner:

1. Increase the maximum height of buildings from 15m to 21m (40% increase); and
2. Increase the floor space ratio control from 1:1 to 2:1 (100% increase).

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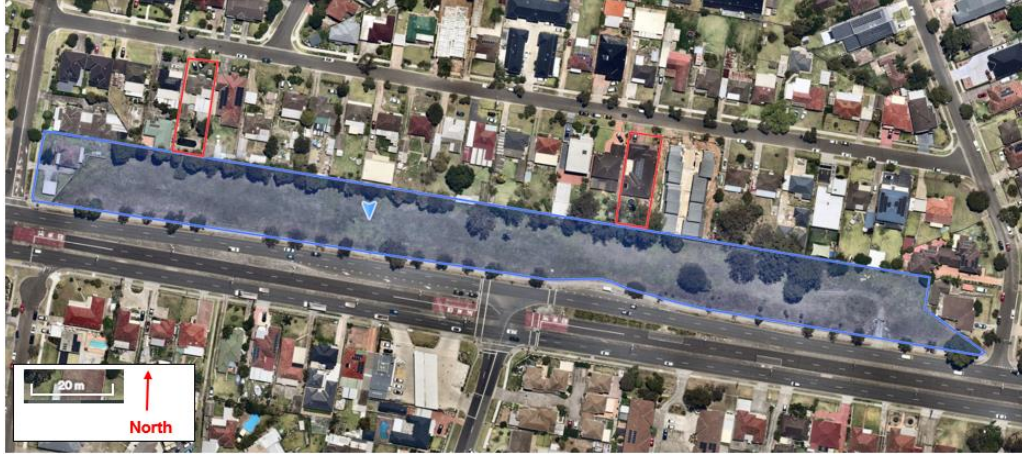


Figure 1: Aerial view of subject site. The allotments subject to the planning proposal are highlighted blue and the two red lots form the proposed vehicular access points for a future development on the subject allotments however do not form part of the request amended development standards of Height and Floor Space Ratio. Source Nearmap: 18 January 2023.

The planning proposal (**Attachment 1**) is submitted pursuant to Section 3.33 of the *Environmental Planning and Assessment (EP&A) Act 1979* and the proposal is referred to the Liverpool Local Planning Panel for advice in accordance with Section 2.19 of the EP&A Act 1979.

The Planning Proposal, as amended by Council, seeks to amend the LLEP 2008 in the following manner:

1. Increase the maximum height of buildings from 15m to 20.5m (36.7% increase); and
2. Increase the floor space ratio control from 1:1 to 1.5:1 (50% increase).

Further, the draft site specific DCP is to be updated, prior to the Council meeting, to include the proposed amendments recommended throughout this report.

### **Strategic Merit**

The site is zoned R4 High Density Residential and the proposal does not seek to change the existing zoning of the site. The intent of the planning proposal is to facilitate the development of six residential flat buildings where each will be a six-storey structure. The proposal will provide approximately 300 residential units and seven neighbourhood shops. The planning proposal accompanies concept architectural plans which are provided in **Attachment 3**.

The proponent has framed the strategic merit of the proposal predominantly around the need for additional housing at desirable locations. It is noted that the Liverpool LGA has achieved the dwelling target identified under the Western Sydney District Plan for 2016-2021 and is on track to achieve the dwelling target for 2021-2026. Therefore, there is insufficient justification

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on this point alone for providing additional housing by potentially undermining the viability of the existing established centres.

The proposal is consistent with the majority of the provisions of the Greater Sydney Region Plan, Western Sydney District Plan, Council's Local Strategic Planning Statement (LSPS) and Liverpool Local Housing Strategy. However, the proposal is inconsistent with Planning Priority 7 of LSPS which requires that the new developments should be focused in the City Centre and centres well

served by public transport. The proposal is not located in any centre identified under the Liverpool Centres and Corridors Strategy.

Whilst not located within a local centre the subject site is located within a well-connected strategic area being approximately 2.2km to Liverpool CBD and railway station, which in addition to Paramatta CBD, are easily accessible from the subject site by the frequent T-way bus services and within close proximity to the M5 and M7 motorways and approximately 295m to the nearest supermarket. The proposal provides opportunity for diverse housing choice within a well-connected location.

**Site Specific Merit**

As outlined below within section 2 of this report (Site and Locality description - The Locality), the subject site is well serviced by public transport with both the Transit way (T-Way) and local bus services providing frequent access to and from Liverpool CBD and Railway Station, Parramatta CBD and Railway Station, and various other strategic Centres.

Subject to further amendments to the draft site specific DCP, the proposed additional height and FSR are expected to maintain amenity to the adjoining residential properties to the north, east and west and provide greater amenity to future occupants of the proposed development. The proposal is expected to have minimal additional impact on overshadowing as adjoining residential properties are located to the north. The site specific DCP is proposed to be further amended to ensure minimal additional privacy impacts to the adjoining residential properties and to ensure that the existing mature trees on site can be retained.

**Conclusion of strategic and site specific merit**

Given the access to public transport and close proximity to the Liverpool Metropolitan Cluster, there is sufficient strategic merit for a modest increase in the potential yield of the site to enable this development.

This report provides the detailed assessment of the planning proposal along with the Council staff's recommendations. It is found that the planning proposal demonstrates sufficient strategic merit and site-specific merit to proceed to a Gateway determination which will allow for further assessment, community consultation and referrals. Council officers recommend that the planning proposal proceeds to Gateway, subject to a reduced FSR of 1.5:1 and further site specific DCP amendments as outlined within this report prior to the Council meeting. Advice is sought from the LPP in relation to this assessment and recommendation.

**LIVERPOOL CITY COUNCIL****LOCAL PLANNING PANEL REPORT****29th May 2023****2. SITE AND LOCALITY DESCRIPTION****The Site**

The development site comprises 31 lots along the Hoxton Park Road frontage. The planning proposal relates to 29 lots which are located at 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue. The lots at 20 and 48 Dale Avenue will only be used to provide access to the proposed development site, therefore are not subject to the planning proposal. The area of the total development site is 14,889.23m<sup>2</sup>, with the planning proposal applying to 13,498.03m<sup>2</sup>, referred to as the subject site (refer to Figure 1 above).

With the exception of 260 Memorial Avenue, 51 Maryvale Avenue, 20 Dale Avenue and 48 Dale Avenue, the remaining allotments fronting Hoxton Park Road are predominantly regular in shape with a lot depth ranging from 25.685m to 32.975m. The sites fronting Hoxton Park Road to the east contain a fall of approximately 1m from rear to front (Hoxton Park Road). The western portion of sites fronting Hoxton Park Road have a fall of approximately 450mm from front to rear (northern boundary). The sites fronting Hoxton Park Road have a cross slope from east (93 Hoxton Park Road) to west (145 Hoxton Park Road) of approximately 8.4m.

With the exception of 260 Memorial Avenue and 20 and 48 Dale Avenue which contain dwellings and associated ancillary structures, the remaining allotments fronting Hoxton Park Road are currently vacant with the majority of the allotments containing large mature trees (59 trees ranging in height from 5m to 23m) towards the rear (northern) boundary and front (southern elevation fronting Hoxton Park Road) elevations. Existing development on the site is provided in Table 1 below.

*Table 1 – Existing development on the site*

<b>Address</b>	<b>Description</b>
93-145 Hoxton Park Road & 51 Maryvale Avenue, Liverpool	Vacant lots with scattered trees which are concentrated along the rear boundary.
260 Memorial Ave, Liverpool	Single storey weatherboard dwelling with tile roof
20 Dale Avenue, Liverpool	Single storey dwelling
48 Dale Avenue, Liverpool	Single storey dwelling

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*Figure 2: The site as viewed looking northwest on Hoxton Park Road. Source: Google Maps.*



*Figure 3: View of Dale Avenue looking west. Source: Google Maps*

The subject site and adjoining sites to the north fronting Dale Avenue are currently zoned R4 – High Density Residential and have a minimum lot size of 1,000sqm. The current FSR of the subject site is 1:1 and the adjoining sites to the north fronting Dale Street have a current FSR of 0.75:1. The current HOB of the subject site is 15m and the adjoining sites to the north fronting Dale Street have a current HOB of 12m.

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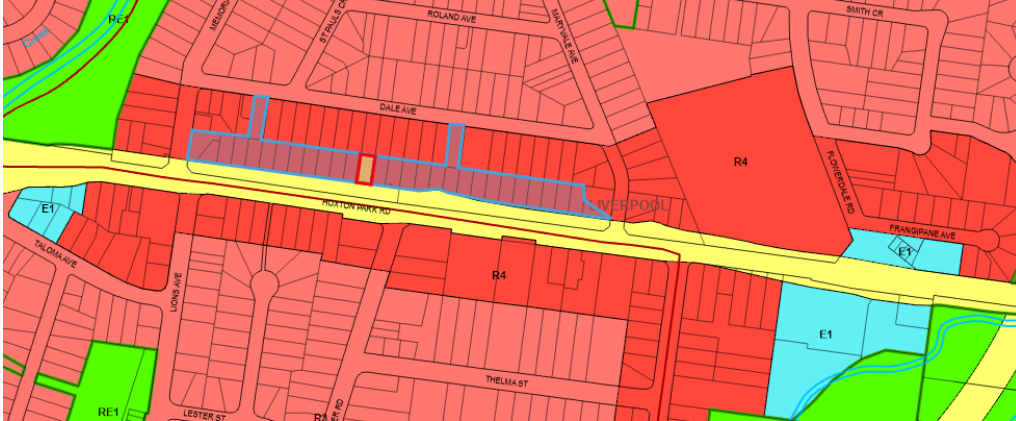


Figure 4: Zoning of the immediate vicinity and subject site being R4 – High Density Residential.



Figure 5: Current FSR of the subject site being 1:1 and adjoining sites to the north fronting Dale Street have a current FSR of 0.75:1

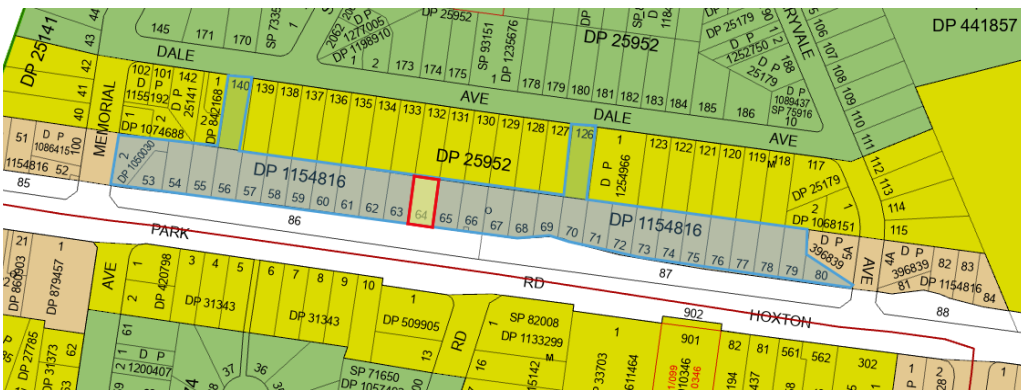


Figure 6: Current HOB of the subject site being 15m and adjoining sites to the north fronting Dale Street have a current HOB of 12m.

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#### **The Locality**

The site is located 3.2km east of the M7 Motorway northbound and southbound on ramps and 3.9km northwest of the M5 Motorway eastbound and westbound on ramps. The Liverpool CBD and Train Station are located approximately 2.2km to the east.

The site is located in an area which is currently undergoing transition from low density residential to medium and high-density residential typologies, in accordance with the current R4 High Density Residential and R3 Medium Density Residential zones. The predominant building types in the locality are one and two storey residential dwellings and multi dwelling housing developments (townhouses). A five story residential flat building is located to the east at 42-50 Hoxton Park Road, Liverpool and a part 4 and part 5 storey residential flat building located to the west at 153 Hoxton Park Road, Liverpool. A large industrial area is located further to the west in Prestons.

The site adjoins a row of single dwellings, a multi dwelling housing development and a childcare facility to the north. The site adjoins Maryvale Avenue to the east and Memorial Avenue to the west.

The site has a frontage to Hoxton Park Road, which is a major public transport corridor with multiple bus services providing frequent services into the Liverpool CBD, including the rapid bus T-Way service.

#### **Railway**

The Location of the site to Liverpool Railway Station is approximately 2.2km (6 minutes by vehicle).

#### **Bus - Tway**

The Liverpool to Parramatta Transitway (Tway) runs adjacent to the subject site on Hoxton Park Road. The nearest eastbound (Towards Liverpool Railway Station) Tway bus stop is approximately 165m to the west of the subject site and the nearest westbound (towards Parramatta) Tway bus stop is approximately 175m to the west of the subject site.



Figure 7: Aerial view of subject site indicating location of nearest eastbound Tway bus stop (green line) and westbound Tway bus stop (red line) from the subject site (highlighted blue).

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The Tway provides bus services between Liverpool Station and Parramatta Station approximately every 10-15 minutes (depended on time of day) during 5:00am (6:00am Saturday and Sunday) and 11:50pm Monday to Sunday.

The Tway provides bus services between Parramatta Station and Liverpool Station approximately every 10-30 minutes (depended on time of day) during 5:00am (6:00am Saturday and Sunday) and 11:50pm Monday to Sunday.

#### **Bus – Other**

There is one bus stop located on Memorial Avenue adjacent to the western boundary of the subject site. Adjacent to the subject site is one other bus stop east bound (Adjacent to approximately 111 Hoxton Park Road) and two bus stops westbound (Adjacent to approximately 116 Hoxton Park Road, Liverpool and 146 Hoxton Park Road Liverpool).

The eastbound bus stop on Hoxton Park Road, Liverpool is serviced by bus routes 853, 854 and 869 providing frequent access from the subject site to Liverpool Railway Station.

The westbound bus stops on Hoxton Park Road, Liverpool are also serviced by routes 853, 854, and 869 providing frequent access to Austral, Edmondson Park, Ingleburn, Prestons, Lurnea Middleton Grange, Horningsea Park, Hoxton Park and West Hoxton.



Figure 8: Aerial view of subject site with Tway and other bus stops circled green.

#### **Vehicle**

The planning proposal architectural plans demonstrate two (2) vehicular access points via 20 and 48 Dale Avenue. Dale Avenue is located to the north of the subject site.

#### **Westbound vehicular entrance to the site**

There is no right turn permitted for vehicles travelling westbound on Hoxton Park Road onto either Maryvale Avenue or Memorial Avenue at any given time. In this regard, vehicular access to Dale Avenue is restrictive for westbound vehicular traffic with vehicles being required to turn right approximately 270m to the east of the subject site from Hoxton Park Road onto Flowerdale Road with vehicles then following the local streets for approximately 5 minutes/1.6km to Dale Avenue. Refer to figure 9 below.

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Figure 9: Aerial view of subject site. Red line indicating the route of how vehicles travelling westbound on Hoxton Park Road would be required to access the site on Dale Avenue.



Figure 10: View travelling westbound on Hoxton Park Road indicating no right turn permitted onto Maryvale Avenue.

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Figure 11: View travelling westbound on Hoxton Park Road indicating no right turn permitted onto Memorial Avenue.

**Eastbound vehicular entrance to the site**

Vehicular access to Dale Avenue for vehicles travelling eastbound on Hoxton Park Road is either via Memorial Avenue (west of subject site) or Maryvale Avenue (east of subject site). Vehicular access via Memorial Avenue is restricted to vehicles which are under 3 tonnes and no left turn from Hoxton Park Road onto Memorial Avenue is permitted Monday to Friday during the hours of 6am to 10am (Buses excepted).

The site contains one traffic signal intersection at the intersection of Hoxton Park Road and Webster Road (Approximately adjacent to 117 and 119 Hoxton Park Road) however there is no right turn lane or traffic signal for westbound traffic on Hoxton Park Road and no left turn lane or traffic signal for east bound traffic on Hoxton Park Road. The pre lodgement advice provided by Council recommended vehicular access via Dale Avenue. The planning proposal is yet to be referred to Transport for New South Wales (TfNSW) and as such vehicular access may be amended.

It is noted that vehicular access to and from the site is an existing issue regardless of the planning proposal. The proposal offers opportunity to rectify this issue through Development Control Plan (DCP) provisions that require access from Dale Avenue.

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### 3. DETAILS OF THE PROPOSAL

#### Planning Proposal Summary

The planning proposal in its current form was submitted to Council on 14 and 20 March 2023, seeking an increase in HOB from 15m to 20.5m and an increased FSR from 1:1 to 1.75:1. Further the planning proposal was accompanied with a site specific DCP and VPA Letter of Offer.

The planning proposal relates to the lots of 93-145 Hoxton Park Road, 51 Maryvale Avenue and 260 Memorial Avenue. The lots at 20 and 48 Dale Avenue will only be used to provide access to the proposed development site, therefore are not subject to the planning proposal.

The planning proposal architectural plans demonstrate seven ground floor 'neighbourhood shops' across four of the six buildings. A neighbourhood shop is an existing permitted land use within the R4 High Density Residential zone. It is noted that as per LLEP 2008 a neighbourhood shop is limited to a maximum 100sqm GFA and is limited to selling general merchandise such as foodstuffs, personal care products, newspapers and the like and excludes a food and drink premises.

#### Planning Proposal History

*Table 2 – Planning Proposal History*

Date	Event
10 December 2020	Pre-planning proposal meeting held with Council seeking to Increase HOB to 18m and FSR to 2:1. Refer to 18 November 2021 below for issues raised by Council.
18 November 2021	Pre-planning proposal meeting held with Council seeking to Increase HOB to 21m and FSR to 2:1. Council raised the following matters: <ul style="list-style-type: none"> <li>• Consistency with the planning framework and relevant strategies;</li> <li>• Privacy concerns of the adjoining properties to the north;</li> <li>• Efforts should be made to retain the existing on-site trees;</li> <li>• The proposal included multiple retail outlets which are prohibited under the <i>Liverpool Local Environmental Plan 2008</i> (LLEP 2008) with exception of neighbourhood shops;</li> <li>• Did not support access off Memorial Avenue and Hoxton Park Road, with the preferred option being two access points from Dale Avenue; and</li> <li>• Suggestion to lodge a concurrent Development Application (DA) to streamline the assessment process.</li> </ul>
13 July 2022	Lodged with proposed HOB of 21m (6 storeys) and FSR of 2:1.
21 November 2022	Meeting held with Proponent and Council to discuss HOB. A height of 18m was discussed of which the proponent indicated was not adequate to support a 6 storey development and that 19m HOB was required.

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	In this regard, the proposed HOB and FSR were to be reduced due to significant bulk and scale and privacy concerns. Further, a draft VPA and draft site specific DCP were discussed to support the planning proposal. Meeting discussed a 19m height limit and FSR of 1.75:1.
<u>6 December 2022</u>	The proponent submitted amended documentation including amended architectural plans, VPA letter of offer and draft site-specific DCP. The updated planning proposal reduced the proposed HOB to 19.5m and FSR to 1.75:1. No updated Planning Proposal document was submitted.
<u>6 January 2023</u>	As a HOB of 19.5m was now proposed, Council emailed the proponent seeking a planning proposal report with justification of a revised HOB of 19m and FSR of 1.75:1.
<u>23 January 2023</u>	The proponent emailed Council a revised Planning proposal report with a 19.5m HOB and FSR of 1.75:1.
<u>24 January 2023</u>	Council emailed the proponent requesting that the revised planning proposal document submitted on 23 January 2023 be amended to be 19m and for architectural plans to correspond.
<u>8 February 2023</u>	Meeting held with proponent which raised various issues regarding HOB, setbacks, privacy and bulk and scale. A request for information letter was issued to proponent.
<u>14 and 20 March 2023</u>	Proponent provided amended plans to Council in response to the RFI issued on 8 February 2023 which included documentation proposing a HOB of 20.5m and a FSR of 1.75:1

As outlined above, the proponent has nominated various HOB controls ranging from 18m to 21m with all being based on 6 storeys. The current proposal as requested by the proponent is for a HOB of 20.5m and FSR of 1.75:1.

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**4. CONSIDERATIONS FOR STRATEGIC MERIT**

The Department's *Local Environmental Plan Making Guideline* includes the following questions to justify the proposal.

***Section A – Need for the planning proposal******Is the planning proposal a result of an endorsed local strategic planning statement, strategic study or report?***

The planning proposal is not the result of any endorsed strategic study or report.

The planning proposal is a site-specific response to the particular circumstances of the site, being a large, consolidated land holding on a prominent transport corridor. The proposal represents a strategic opportunity to enable housing supply in an appropriate location with convenient access to transport and proximity to local employment and services.

***Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?***

The planning proposal is the best means of facilitating the identified objectives and intended outcomes for the specific circumstances of the site being large, consolidated land holding on a prominent transport corridor. The planning proposal provides an opportunity to address height and FSR, along with pedestrian links and greater emphasis on affordable housing. It is noted that State Environmental Planning Policy (Housing) 2021 encourages affordable housing with bonus FSR provisions.

***Section B – Relationship to the strategic planning framework******Will the planning proposal give effect to the objectives and actions of the applicable regional, or district plan or strategy (including any exhibited draft plans or strategies)?***Greater Sydney Regional Plan - A Metropolis of Three Cities

In March 2018, the NSW Government released the Greater Sydney Region Plan: A Metropolis of Three Cities ("the GSRP") a 20-year plan which outlines a three-city vision for metropolitan Sydney. The plan encompasses a global metropolis of three cities – the Western Parkland City, the Central River City and the Eastern Harbour City. The plan envisions for the people of Greater Sydney to live within 30 minutes of their jobs and have access to education and health facilities, services and high-quality places. The site is located within the Western Parkland City.

Consistency with the relevant parts of the Regional Plan is assessed below in Table 3 below:

*Table 3: Consistency with the Regional Plan*

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Greater Sydney Region Plan - A Metropolis of Three Cities	
Direction	Comment
Infrastructure and Collaboration	
Objective 1. Infrastructure supports the three cities	<p>The VPA letter of offer proposes 5% of the total number of units (Approximately 15 units based on current planning proposal documentation) to be affordable housing units and be a mix of 1, 2 and 3 bedroom units on various levels and various locations (Not just west or south facing or ground floor fronting Hoxton Park Road).</p> <p>The VPA letter of offer includes pedestrian links, upgrade of the pathway on Hoxton Park Road and upgrade of a bus stop adjacent to the subject site. The VPA letter of offer is at a very early stage and requires a cost of works to be submitted. Further negotiations of the VPA letter of offer will occur prior to finalisation of the planning proposal.</p> <p>The increased housing and job creation in this brownfield area will optimise co-location of existing and future infrastructure associated with the Liverpool Metropolitan Cluster, by locating density along the strategic corridor of Hoxton Park Road, which has access to the Liverpool City Centre and T-Way.</p>
Objective 2. Infrastructure aligns with forecast growth – growth infrastructure compact	
Objective 3. Infrastructure adapts to meet future needs	
Objective 4. Infrastructure use is optimised	
A city for people	
Objective 7. Communities are healthy, resilient and socially connected	<p>The proposal encourages walking and cycling as the site adjoins West Hoxton Bicycle Route which connects the site with the Liverpool CBD. The proposal provides future residential development with access to public transport, schools, health, aged care, sporting and cultural facilities, due to its location along Hoxton Park Road and proximity to the City Centre.</p>
Housing the city	
Objective 10. Greater housing supply	<p>The proposal will provide additional housing and will contribute to achieving Council's housing targets.</p>
Objective 11. Housing is more diverse and affordable	<p>The proposal will provide housing in the form of apartments which helps to diversify the housing stock of the area and provide a modestly more affordable form of housing. The proposal will provide a range of apartment sizes to suit a diverse range of user groups. The VPA letter of offer nominates 5% (Approximately 15 units) of the total number of units to be affordable housing units.</p>

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Greater Sydney Region Plan - A Metropolis of Three Cities	
Direction	Comment
<b>A well-connected city</b>	
Objective 14. A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities	The site is located approximately 2.2km from Liverpool CBD and has access to active and public transport. Therefore, the proposal gives effect to this objective.
<b>A city in its landscape</b>	
Objective 27. Biodiversity is protected, urban bushland and remnant vegetation is enhanced	The site is not identified as having any particular biodiversity value and does not contain any bushland.
Objective 30. Urban tree canopy cover is increased	<p>The site contains approximately 59 mature trees ranging in heights from 6m – 23m along the northern (rear) and southern (front) setbacks.</p> <p>The site specific DCP supporting the proposal requires refinement to ensure the protection of these existing urban trees is required at the DA stage. Additional tree canopy can be incorporated within the front and side setbacks as part of future development application.</p> <p>It is noted the future DA would be required to be supported by an arboriculture report, detailing tree protection zones etc.</p>

Western City District Plan

Section 3.8 of the EP&A Act requires that the planning proposal authority gives effect to any district strategic plan applying to the LGA to which the planning proposal relates. The Western City District Plan provides a series of priorities and actions to guide development and expected growth throughout the district. Relevant priorities and actions are outlined in Table 4 below:

Table 4: Consistency with the District Plan

Western City District Plan	
Planning Priority	Comment
<b>Infrastructure and collaboration</b>	
<b>Planning Priority W1</b> Planning for a city supported by infrastructure	The proposal seeks to provide future residential development in a location which benefits from the existing and future infrastructure associated with the Liverpool Metropolitan Cluster.

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<b>Western City District Plan</b>	
<b>Planning Priority</b>	<b>Comment</b>
<b>Liveability</b>	
<b>Planning Priority W3</b> Providing services and social infrastructure to meet people's changing needs	The proposal does not directly provide any social infrastructure. The proposal is located in close proximity to the Liverpool Metropolitan Cluster which has a major public hospital, health precinct and a range of social infrastructure to service the needs of a growing community. The proposal will optimise the use of the existing infrastructure.
<b>Planning Priority W4</b> Fostering healthy, creative, culturally rich and socially connected communities	As stated above, the proposal encourages walking and cycling as the site adjoins a wide pedestrian/bicycle pathway which provides active transport to the western end of Liverpool CBD. The proposal also provides access to public transport, schools, health, aged care, sporting and cultural facilities.
<b>Planning Priority W5</b> Providing housing supply, choice and affordability, with access to jobs, services and public transport	<p>The proposal involves the development of six residential flat buildings comprising approximately 300 residential units. Residential flat buildings are a relatively affordable housing option. The proposal also provides a range of 1, 2 and 3 bedroom apartments which will suit a diverse range of user groups, and result in housing diversity. The housing mix will be further assessed at the DA stage.</p> <p>The proposal has access to public transport and is located in close proximity of Liverpool Metropolitan Cluster which provides range of social services and job opportunities.</p>
<b>Productivity</b>	
<b>Planning Priority W9</b> Growing and strengthening the metropolitan cluster	The proposal will provide housing options close to metropolitan cluster with direct public transport access. Therefore, the proposal will strengthen the metropolitan cluster.
<b>Sustainability</b>	
<b>Planning Priority W15</b> Increasing urban tree canopy cover and delivering Green Grid connections	<p>As mentioned above under Objective 30 of Greater Sydney Region Plan, the site is not identified as having any particular biodiversity value and does not contain any bushland.</p> <p>The site contains approximately 59 mature trees ranging in heights from 6m – 23m along the northern (rear) and southern (front) setbacks.</p>

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Western City District Plan	
Planning Priority	Comment
	<p>The site specific DCP supporting the proposal requires refinement to ensure the protection of these existing urban trees is required at the DA stage. Additional tree canopy can be incorporated within the front and side setbacks as part of future development application.</p> <p>It is noted the future DA would be required to be supported by an arboriculture report, detailing tree protection zones etc.</p>

***Will the planning proposal give effect to council's endorsed local strategic planning statement, or another endorsed local strategy or strategic plan?***

Connected Liverpool 2040 - Local Strategic Planning Statement (LSPS)

Council's Local Strategic Planning Statement (LSPS) was endorsed in 2020. Assessment of consistency with the LSPS is as below:

*Table 5: Consistency with LSPS*

Connected Liverpool 2040 - Local Strategic Planning Statement (LSPS)	
Planning Priority	Comment
<b>Connectivity</b>	
<b>Planning Priority 1</b> Active and public transport reflecting Liverpool's strategic significance	The proposal has access to public transport and bicycle path located along the Hoxton Park Road. Therefore, the proposal encourages active and public transport.
<b>Planning Priority 2</b> A rapid smart transit link between Liverpool and Western Sydney International Airport /Aerotropolis	The proposal improves the viability of the proposed route of rapid transit link between Liverpool CBD and the Western Sydney Airport by increasing the population within a walking catchment.
<b>Livability</b>	
<b>Planning Priority 7</b> Housing choice for different needs, with density focused in the City Centre and centres well serviced by public	<p>The proposal is partly consistent with this priority.</p> <p>The proposal benefits from public transport access and would help to develop and diversify housing stock of the immediate area. However, the proposal is not located within</p>

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transport	<p>the City Centre, or around a Town Centre, and seeks to provide housing above what is permitted under the existing development standards.</p> <p>The Liverpool LGA has achieved the dwelling target identified under the Western Sydney District Plan for 2016-2021 and is on track to meet the dwelling target for 2021-2026. Therefore, there is insufficient justification for providing additional housing by potentially undermining the viability of the existing established centres.</p> <p>Nonetheless, given the access to public transport and close proximity to the Liverpool City Centre, there is strategic merit for a relatively small scale increase for a consolidated site to enable this development to occur and deliver housing.</p>
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#### Liverpool Local Housing Strategy 2020

Liverpool's Local Housing Strategy was endorsed in 2020. Assessment of consistency with the Local Housing Strategy is as below.

*Table 6: Consistency with Liverpool Local Housing Strategy 2020*

Liverpool Local Housing Strategy 2020	
Priority	Comment
<b>Diversity</b> Ensuring there is a sufficient range of diverse housing types to meet the changing needs of its residents	The proposal will provide a range of apartment sizes to suit a diverse range of user groups.
<b>Affordability</b> Encouraging greater housing affordability in the LGA to ensure existing community members can remain within their community and that essential workers in the locality can access appropriate housing	<p>The proposal will provide housing in the form of apartments which helps to diversify the housing stock of the area and provide a modestly more affordable form of housing. The proposal will provide a range of apartment sizes to suit a diverse range of user groups. The VPA letter of offer nominates 5% (Approximately 15 units) of the total number of units to be affordable housing units. The VPA letter of offer remains under assessment by Council with further negotiations expected.</p> <p>Further, the recommended reduced FSR of 1.5:1 provides incentive for a future development to consider additional affordable housing through the bonus FSR provisions for affordable housing contained within State Environmental</p>

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Liverpool Local Housing Strategy 2020	
Priority	Comment
	Planning Policy (Housing) 2021.
<b>Built form and sustainability</b> Encouraging good built form outcomes and sustainability in housing and neighbourhood design	<p>The proposal is supported by concept architectural plans. The proposal is capable of complying with the provisions of <i>SEPP 65—Design Quality of Residential Apartment Development</i>, <i>Apartment Design Guide</i> and <i>SEPP (Building Sustainability Index: BASIX)</i>. The planning proposal is subject to a future DA.</p> <p>As noted above within the report, the proposed HOB of 20.5m is generally supported by Council. This is subject to various amendments to the draft site specific DCP submitted with the planning proposal in order to provide greater amenity and visual privacy to future occupants of the development and adjoining residential land uses to the north and east and the wider vicinity.</p> <p>Further, the DCP amendments must help to reduce the bulk and scale of the development on the streetscape, adjoining residential properties to the north and vicinity. Particularly given the proposed width of each of the 6 proposed buildings ranging from 45m to 58m and proposed HOB of 20.5m compared to the adjoining R4 – High Density Residential zoned land to the north having a HOB of 12m.</p>

***Is the planning proposal consistent with the applicable State Environmental Planning Policies?***

The planning proposal is consistent with SEPPs applying to the land as explained in Table 7.

*Table 7: Consistency with SEPPs*

State Environmental Planning Policies	
Policy	Comment
SEPP (Biodiversity and Conservation) 2021	The planning proposal does not inhibit the application of the SEPP. The proposal is not located in an environmentally sensitive area. Any future tree removal would be required to be supported by arborist's advice as part of any DA.
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	The requirements of this SEPP can be addressed at DA stage.

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State Environmental Planning Policies	
Policy	Comment
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP)	The proposal does not inhibit the application of Exempt and Complying Development Codes SEPP.
State Environmental Planning Policy (Housing) 2021	The proposal does not inhibit the application of Housing SEPP. A VPA letter of offer is being reviewed by Council which nominates 5% of units to be affordable housing. A future DA may permit a bonus FSR under the provision of the SEPP should affordable housing be proposed in a future development.
State Environmental Planning Policy (Industry and Employment) 2021	The proposal does not inhibit the application of the Industry and Employment SEPP.
State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development	The future development application will be subject to SEPP 65 provisions and the Apartment Design Guide.
State Environmental Planning Policy (Planning Systems) 2021	Given the number of apartments proposed being 300 apartments, the development is likely to have a capital investment value of more than \$30 million and in this regard, would be defined as Regionally Significant Development.
State Environmental Planning Policy (Precincts—Central River City) 2021	Not applicable.
State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021	Not applicable.
State Environmental Planning Policy (Precincts—Regional) 2021	Not applicable.
State Environmental Planning Policy (Precincts—Western Parkland City) 2021	Not applicable.
State Environmental Planning Policy (Primary Production) 2021	Not applicable.
State Environmental Planning Policy (Resilience and Hazards) 2021	<p>The proposal is supported by a Preliminary Site Investigation, prepared by EI Australia. The report provides a review of historic site uses and confirms that the likelihood of site contamination is low-moderate.</p> <p>The report recommends the preparation of a Hazardous Materials Survey and Stage 2 Detailed Site Investigation to further assess the site contamination. It is intended that a Hazardous</p>

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State Environmental Planning Policies	
Policy	Comment
	Materials Survey and Stage 2 DSI will be requested at the DA stage, or if required by Gateway conditions.
State Environmental Planning Policy (Resources and Energy) 2021	Not applicable.
State Environmental Planning Policy (Sustainable Buildings) 2022	The Proposal does not inhibit the application of this SEPP.
State Environmental Planning Policy (Transport and Infrastructure) 2021	<p>Given the site fronts Hoxton Park Road, which is identified as a classified road, a future DA would trigger State Environmental Planning Policy (Transport and Infrastructure) 2021 and the Roads Act 1993 and require referral to Transport for New South Wales (TfNSW).</p> <p>It is noted that the proposal will be referred to TfNSW at the state agency referral stage.</p>

***Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 directions)?***

The assessment of the Planning Proposal against the relevant Ministerial Directions is provided in Table 8 below:

*Table 8: Ministerial Direction Consistency*

Direction	Comment	Consistency
<b>1. Planning Systems</b>		
1.1 Implementation of Regional Plans	The proposal is predominantly consistent with the Greater Sydney Region Plan. The complete assessment of the proposal against Greater Sydney Region Plan is provided in Table 3.	Consistent
<b>3. Biodiversity and Conservation</b>		
3.2 Heritage Conservation	The site is not heritage listed or in the immediate vicinity of a heritage item.	Not applicable
<b>4. Resilience and Hazards</b>		
4.1 Flooding	A small portion of 260 Memorial Avenue within the northwest corner of the site is identified being affected by low flood risk. The concept plans show the proposed development footprint clear of any flood prone land.	Consistent

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	Indicative site access points (Dale Avenue) are also clear of any flooding risk and the road network provides several flood free evacuation routes, should a flooding event occur.	
4.3 Planning for Bushfire Protection	A small portion of 260 Memorial Avenue within the northwest corner of the site is identified as being bushfire prone. The concept plans show the proposed development footprint and access points to the site are clear of any bushfire prone land. Given the minor nature of the impact, the bushfire report can be prepared at DA stage.	Consistent
4.4 Remediation of Contaminated Land	The proposal is supported by a Preliminary Site Investigation, prepared by EI Australia ( <b>Attachment 13</b> ). The report provides a review of historic site uses and confirms that the likelihood of site contamination is low-moderate. The report recommends the preparation of a Hazardous Materials Survey and Stage 2 Detailed Site Investigation to further assess the site contamination. A Hazardous Materials Survey and Stage 2 DSI will be requested at the DA stage, or after Gateway if required by the Department.	Consistent
4.5 Acid Sulphate Soils	The site is identified as class 1 for Acid Sulphate Soils. Acid Sulphate Soils can be addressed at Development Application stage.	Consistent
<b>5. Transport and Infrastructure</b>		
5.1 Integrating Land Use and Transport	The proposal will enhance access to jobs and services through connections to the existing bus services. The increased intensity will strengthen the viability of existing public transport services in the area.	Consistent
5.2 Reserving Land for Public Purposes	The proposal does not contain any land that has been reserved for a public purpose.	Not applicable
<b>6. Housing</b>		
6.1 Residential Zones	The proposal does not include a change of zoning and seeks to maintain the current R4 zone. The proposal will broaden the choices of building types and make	Consistent

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Direction	Comment	Consistency
	more efficient use of existing infrastructure and services.	

**5. CONSIDERATIONS FOR SITE SPECIFIC MERIT*****Section C – Environmental, social and economic impact***

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

Council vegetation mapping does not indicate the presence of any native ecological communities within the vicinity of the proposed planning proposal. It is considered that further consideration of ecological matters is not warranted for the planning proposal given the apparent limited biodiversity values within the site. However, the site contains multiple mature trees which are scattered across the site.

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

Existing vegetation

The Western Sydney District Plan identifies a target of 40% tree canopy cover by 2036. The majority of the suburbs in the Liverpool LGA are visibly deficient in tree canopy cover. Considering that, it is critical to retain the existing on-site trees wherever possible.

As stated above, the site contains approximately 59 mature trees ranging in heights from 6m – 23m along the northern (rear) and southern (front) setbacks. The setbacks are proposed to be strengthened within the site specific DCP and greater emphasis on controls imposed to ensure the mature trees are retained as part of a future DA.

It is noted a future DA would be required to be supported by an arboriculture report, detailing tree protection zones etc.

Traffic

The proposal is provided two access points via 20 and 48 Dale Avenue. It is noted that the main access to the subject site is through two key intersections on Hoxton Park Road at Memorial Avenue and Maryvale Avenue with left in/left out only arrangements. Refer to section 2 (Site and locality description – The locality) above, for details regarding vehicular access to and from the site for vehicles travelling eastbound and westbound on Hoxton Park Road.

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The planning proposal was submitted with a Traffic Impact Assessment (T.I.A) and Green Travel Plan at lodgement which was reviewed internally by Council's Transport Planner who raised concerns with the modelling used within the T.I.A. As such the comments provided by Council's Transport Planner were included within the Request for Information (RFI) letter issued by Council to the proponent.

The proponent provided a response to Council's RFI in March 2023. The amended documentation submitted to Council included a response letter prepared by the proponents traffic consultant. The letter was reviewed internally by Council's Transport Planner who raised no objection subject to a local traffic management plan being prepared for Dale Avenue in consultation with Councils Transport Team. The identified traffic improvement scheme is to be included in the VPA. Council's transport planner noted support for the transport facilities and upgraded identified within the VPA letter of offer.

Hoxton Park Road is a classified road in accordance with Transport for New South Wales Schedule of Classified Roads and Unclassified Regional Roads and as such, the planning proposal will be referred to TfNSW post Gateway determination.

Acoustics, visual privacy and bulk and scale

The proposal is supported by an Acoustic Assessment, prepared by Acouras Consultancy, dated 23 June 2022 (**Attachment 7**). The report provides an assessment of existing noise conditions and future noise conditions as a result of the development, primarily from traffic. The report concludes that the compliance with EPA noise levels can be achieved by incorporating the recommended building materials. The acoustic matters can be further addressed at the DA stage with the submission of a Noise Impact Assessment Report when actual yield and design are known.

As noted above within the report, the proposed HOB of 20.5m is generally supported by Council subject to various amendments to the draft site specific DCP submitted with the planning proposal in order to provide greater amenity and visual privacy to future occupants of the development and adjoining residential land uses to the north and east and the wider vicinity.

Further, the DCP amendments must help to reduce the bulk and scale of the development on the streetscape, adjoining residential properties to the north and vicinity. Particularly given the proposed width of each of the 6 proposed buildings ranging from 45m to 58m and proposed HOB of 20.5m compared to the adjoining R4 – High Density Residential zoned land to the north having a HOB of 12m.

Contamination

The proposal is supported by a Preliminary Site Investigation, prepared by EI Australia, dated 5 May 2022 (**Attachment 13**). The report provides a review of historic site uses and confirms that the likelihood of site contamination is low-moderate. The report recommends the preparation of a Hazardous Materials Survey and Stage 2 Detailed Site Investigation to

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further assess the site contamination. A Hazardous Materials Survey and Stage 2 DSI will be requested at the DA stage or after Gateway if required by the Department.

***Has the planning proposal adequately addressed any social and economic effects?***Economic effects

The planning proposal will have a positive economic impact by providing multiple short term employment opportunities during the construction phase and bringing investment in the Liverpool LGA. The proposal also comprises seven neighbourhood shops which will provide on-going employment opportunities to the local population.

Social effects

The proposal is supported by a Social Impact Assessment, prepared by Hill PDA, dated June 2022 (**Attachment 10**). The assessment includes an analysis of the existing social environment and aims to identify both positive and negative social impacts associated with the proposed development.

The adverse social impacts caused by the development include pressure on public schools, congestion, reduced access to parking and visual privacy concerns for the adjoining properties to the north. The increased traffic volume on Dale Avenue will expose existing residents to higher noise levels. Upgrades and improvements can be made in Dale Avenue to mitigate issues such as congestion and parking. Council continues to advocate for upgrades to infrastructure and services.

Further measures to ensure the privacy of the adjoining properties can be included at DA stage. The impacts during the construction stage can be appropriately mitigated through standard plans of management, including a construction management transport plan.

A draft VPA submitted to Council nominates a minimum of 5% of the residential component of a future development application to be nominated for the purposes of affordable housing. Subject to further review, this requirement can be implemented on title and addressed during the lodgement of a future DA. Further, the proposed reduced FSR of 1.5:1 provides greater incentive for a future development to consider the bonus FSR provision provided within State Environmental Planning Policy (Housing) 2021 for affordable housing.

Positive social impacts include provision of diverse and relatively affordable housing stock for the growing population in close proximity of Liverpool Metropolitan Cluster. The proposal will be subject to Section 7.11 contribution and it will be utilised in upgrading the local infrastructure to meet the needs of the growing population.

With mitigation measures in place, it is likely that the proposal will have a net positive effect.

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***Section D – State and Commonwealth Interests******Is there adequate public infrastructure for the planning proposal?***

The site is located in an existing urban area and is serviced by all relevant utilities. All utility providers will be consulted should a Gateway determination be issued.

***What are the views of state and Commonwealth public authorities consulted in accordance with the Gateway determination?***

Views of State and Commonwealth public authorities will be consulted should a Gateway determination be issued. Relevant public authorities will be identified for consultation at the Gateway determination stage.

**6. DISCUSSION**

Pursuant to the requirements of a Guide to Preparing Planning Proposals and relevant Ministerial Directions, this report provides a merit assessment of the planning proposal request.

**Strategic Merit**

As detailed within this report, the proposal is consistent with the majority of the provisions of Greater Sydney Region Plan, Western Sydney District Plan, Council's Local Strategic Planning Statement (LSPS) and Liverpool Local Housing Strategy. The proposal is justifiably inconsistent with Planning Priority 7 of LSPS which requires that new developments be focused in the City Centre and around centres well serviced by public transport. The proposal is not located in any centre identified under the Liverpool Centres and Corridors Strategy, however the site has strong connections to the City Centre and other centres via the T-Way and active transport routes.

**Site Specific Merit**

As noted within this report, the proposal raises some amenity concerns in relation to visual privacy and the overall bulk and scale of the proposal upon the adjoining properties, streetscape and vicinity including concerns regarding the retention of trees.

**Height of Building Discussion**

The proposed HOB being 20.5m is derived from a 6 storey development with a ground floor level of 3.3m (Due to neighbourhood shops as per ADG), 2.7m floor to ceiling height for levels 1-6, 0.4m slab between levels and lift overrun. The height of building proposed being 20.5m is generally supported by Council subject to future amendments to the draft site specific DCP to minimise visual and acoustic privacy impacts to the adjoining residential properties to the north and to reduce the overall bulk and scale of the development including to the streetscape of Hoxton Park Road. It is noted that adjoining residential developments

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are to the north and east of the subject site only and an increase in overshadowing to residential properties is expected to be minimal.

Currently the draft site specific DCP includes a section regarding building setbacks. It is noted that building setbacks for residential flat buildings in the R4 zone are already stated within Liverpool DCP 2008. Currently the planning proposal proposes a reduction to the majority of the building setbacks already outlined within Liverpool DCP 2008. It is noted that the site depth is approximately 30m compared to various other R4 zoned lots being 35m or greater in depth.

Regardless of the site depth, there is the possible opportunity for development of the sites in stages and theoretically the opportunity for amalgamation of the sites from Hoxton Park Road with the sites located to the north fronting Dale Avenue. These sites have a greater site depth, are also zoned R4 – High Density Residential and the majority of lots are undeveloped currently.

Increased front and rear building setbacks will reduce the impact to the existing mature trees located towards the front and rear setbacks of the lots fronting Hoxton Park Road. This will enable greater opportunity for the trees to be retained at development application (DA) stage, helping to further reduce the privacy and bulk and scale impacts of a future development.

It is therefore recommended that the HOB is supported subject to additional amendments to the draft site specific DCP including limiting rooftop communal open space and for levels 4, 5 and 6 of the proposed development to have greater front and rear setbacks as to further reduce the bulk and scale of a future development. This is especially important given that the planning proposal demonstrates a building width ranging from 45m to 58m (up to approximately 4 single lot widths) whereas the majority of existing residential flat buildings within the vicinity are approximately 30m in width.

Refer to figure 12 below for a residential flat building development within the Liverpool LGA on Hoxton Park Road where the upper two levels have greater setbacks.



*Figure 12: View of a two separate 5 storey residential flat buildings where levels 4 and 5 are further setback from the streetscape than levels 1 -3, reducing the bulk and scale of the development. Each development is across 2 allotments (Approximately 30m width).*

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*Figure 13: View of a two separate 6 storey residential flat buildings built closer to the street setback and with no indentation to upper levels increasing the bulk and scale. Each development is approximately 45m width.*

### Floor Space Ratio discussion

The planning proposal as lodged, proposed an FSR of 2:1 and currently proposes an FSR of 1.75:1. It is noted that all R4 – High Density Residential sites within Liverpool LGA which have a HOB of 21m, an FSR of 1.5:1 applies. Sufficient justification for this site to have a variation to the current height to FSR ratio this has not been provided.

As outlined above under HOB discussion, the planning proposal currently seeks to increase the HOB by 5.5m (36.7%), however seeks to increase FSR by 0.75:1 (75%) and reduce the building setbacks as contained within the existing Liverpool DCP for residential flat building development within the R4 zone. Further, the overview urban structure plan contained within the draft site specific DCP, proposes building separation which differs from the Apartment Design Guideline (ADG). It is seen that this mismatch would lead to poor outcomes for both the residents of the future development and the neighbouring residential properties.

Further it is noted that State Environmental Planning Policy (Housing) 2021 (SEPP) encourages affordable housing by providing opportunities for greater FSR than permitted under an Environmental Planning Instrument. These provisions function by providing a commensurate FSR bonus for the quantity affordable housing provided. As a result, the 5% affordable housing offer currently accompanying the planning proposal will result in a small FSR allowance increase. If at the DA stage additional affordable housing is voluntarily offered, further FSR allowances would apply under the provisions of the SEPP.

In this regard, Council recommends an FSR of 1.5:1, a 50% increase from the current FSR. The justification for this recommended change is:

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- The site is constrained by the potential amenity impacts to adjoining residential lots and a reduced overall building footprint, yet taller form, will help to alleviate these impacts to a certain extent whilst still enabling the feasible development of this consolidated site;
- A reduced building footprint with indentations at upper levels in accordance with the recommended FSR will help to facilitate greater setbacks to further reduce amenity impacts and allow for better tree retention and new tree planting;
- The 1.5:1 FSR recommended aligns with the strategic approach taken elsewhere in the LLEP 2008 for R4 zoned land of a similar height;
- A 50% increase to the FSR control is better aligned with the 36.7% increase in height sought; and
- If affordable housing is proposed in accordance with the current draft VPA letter of offer, a small additional FSR allowance will be accessible above the recommended 1.5:1.

#### Conceptual Architectural Plans

The planning proposal is supported by concept architectural plans, prepared by Tony Owen Partners, submitted to Council 14 March 2023 (**Refer to Attachment 3**). The concept design envisions the following outcomes:

- 6 x 6 storey residential flat buildings ranging in width from 45m to 58m;
- 3 basement car parking levels;
- Approximately 300 residential apartments, including a mix of 1, 2 and 3 bedroom apartments;
- Ground floor with a mix of commercial and residential uses, including seven neighbourhood shops;
- Vehicular and pedestrian site access via 20 and 48 Dale Avenue;
- Pedestrian links through the site, connecting residents from the north (e.g. Dale Avenue) to Hoxton Park Road; and
- Landscaped areas and deep soil planting in semi-public spaces as well as communal open spaces.

The above proposed built form concept is shown in Figures 14-16 below and is without the indentation to levels 4, 5 and 6, increased building separation, increased building setbacks or other draft site specific DCP amendments recommended by Council and do not consider the proposed reduced FSR of 1.5:1. The proposed site specific DCP changes and FSR recommended by Council may reduce the overall number of units for a future development on the subject site. However, this would provide greater amenity, visual privacy and bulk and scale to the streetscape, adjoining residential properties, future occupants of the proposed development and the vicinity.

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Figure 14: Concept massing study. Source: Architectural plans by Tony Owen Partners

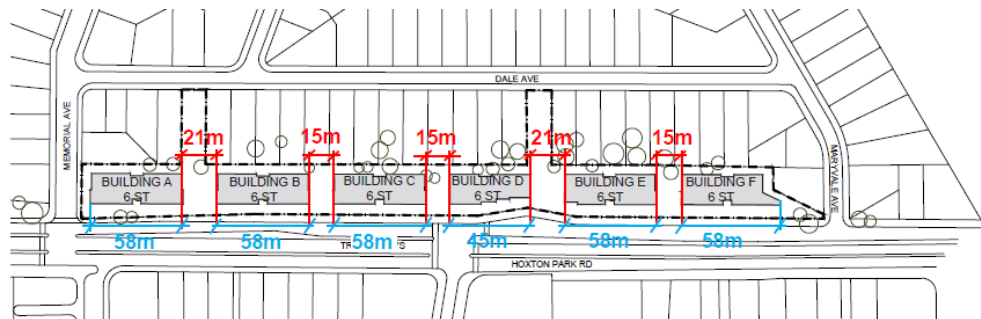


Figure 15: Overview of site layout including building separation and building width. Source: Architectural plans by Tony Owen Partners



Figure 16: Concept view of proposal looking eastbound from Hoxton Park Road as seen by westbound vehicles. Source: Architectural plans by Tony Owen Partners

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#### VPA Letter of Offer including Affordable Housing Provision

A VPA letter of offer was submitted with amended documentation in December 2022 and a revised VPA letter of offer in March 2023. The VPA letter of offer proposes 5% of the total number of units (Approximately 15 units based on current planning proposal documentation) to be affordable housing units and be a mix of 1, 2 and 3 bedroom units on various levels and various locations (Not just west or south facing or ground floor fronting Hoxton Park Road). The VPA letter of offer also includes pedestrian links, upgrade of pathway on Hoxton Park Road and upgrade of a bus stop adjacent to the subject site.

The VPA letter of offer is at a very early stage and requires a cost of works to be submitted. Further negotiations of the VPA letter of offer are expected prior to finalisation of the planning proposal.

#### Conclusion

As noted above within the report, the proposed HOB of 20.5m is generally supported by Council subject to an amended 1.5:1 FSR and various amendments to the supporting draft site specific DCP submitted with the planning proposal. This is in order to provide greater amenity and visual privacy to future occupants of the development and adjoining residential land uses to the north and east and the wider vicinity.

To this end, the following work is expected to occur following the LPP meeting in relation to the draft site specific DCP:

- Control stating maximum building height of 6 storeys.
- For all buildings, the front and rear (North and south elevations) building envelope for levels 4, 5 and 6 be decreased by a minimum of 2m from that of the floors below.
- Revision of setback controls, noting their reduction from existing setback controls in the DCP for RFB developments in the R4 zone. These revisions would aim for greater certainty at the planning proposal stage that privacy impacts are mitigated, bulk and scale is better managed, and the existing mature trees located along the front and rear setback can be retained to further reduce the bulk and scale and increase privacy from the development.
- Control regarding privacy measures to be incorporated into a future DA design regarding habitable rooms and balconies facing the northern (rear) elevation.
- Revision of building separation controls with reference to the Apartment Design Guide which contains more generous separation controls.
- Additional controls limiting privacy impacts resulting from any potential upper floor or rooftop communal open space areas.
- Controls to ensure sufficient deep soil landscaping is provided, enabling the retention of existing and planting of new mature canopy trees to achieve 40% canopy targets for the site.

**LIVERPOOL CITY COUNCIL****LOCAL PLANNING PANEL REPORT****29th May 2023**

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**7. NEXT STEPS**

Following the Panel's consideration, the planning proposal will be reported to Council for consideration. It is recommended that the FSR be reduced to 1.5:1 and that the draft site specific DCP and concept architectural plans are updated to include the proposed amendments recommended throughout this report prior to the Council meeting. Any advice provided from the Panel will be considered in these revisions by the proponent and Council. Further discussion regarding the VPA letter of offer is also recommended prior to the Council meeting.

Should the planning proposal request be endorsed, it will be forwarded to DPE seeking a Gateway determination. Following a Gateway determination in support of the planning proposal, there will be public agency and community consultation and a further report will be prepared for Council prior to proceeding with the making of any amendment to the LLEP 2008.

It is noted that the provision of various additional studies and clarification may be required by DPE prior to exhibition occurring as part of a future Gateway determination.

**8. RECOMMENDATION**

That the planning proposal is supported in the following form:

1. Amend the Liverpool LEP 2008 Height of Buildings Map (Sheet HOB\_010) from 15 metres to a maximum building height of 20.5 metres for the site.
2. Amend the Liverpool LEP 2008 Floor Space Ratio Map (Sheet FSR\_10) from 1:1 to a maximum of 1.5:1 for the site.

Additionally, it is recommended that that the draft site specific DCP and concept architectural plans are updated to include the proposed amendments recommended throughout this report. Further discussion regarding the VPA letter of offer is also recommended.

**ATTACHMENTS**

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1. Planning Proposal
2. Survey Plans
3. Concept Architectural plans
4. Draft Site Specific DCP
5. Draft VPA Offer
6. Landscape design report
7. Acoustic impact assessment
8. Traffic impact assessment
9. Traffic response letter
10. Social impact assessment
11. Operational waste management plan

**LIVERPOOL CITY COUNCIL****LOCAL PLANNING PANEL REPORT****29th May 2023**

- 
- 12. Preliminary geotechnical assessment
  - 13. Preliminary site investigation
  - 14. Desktop flood assessment



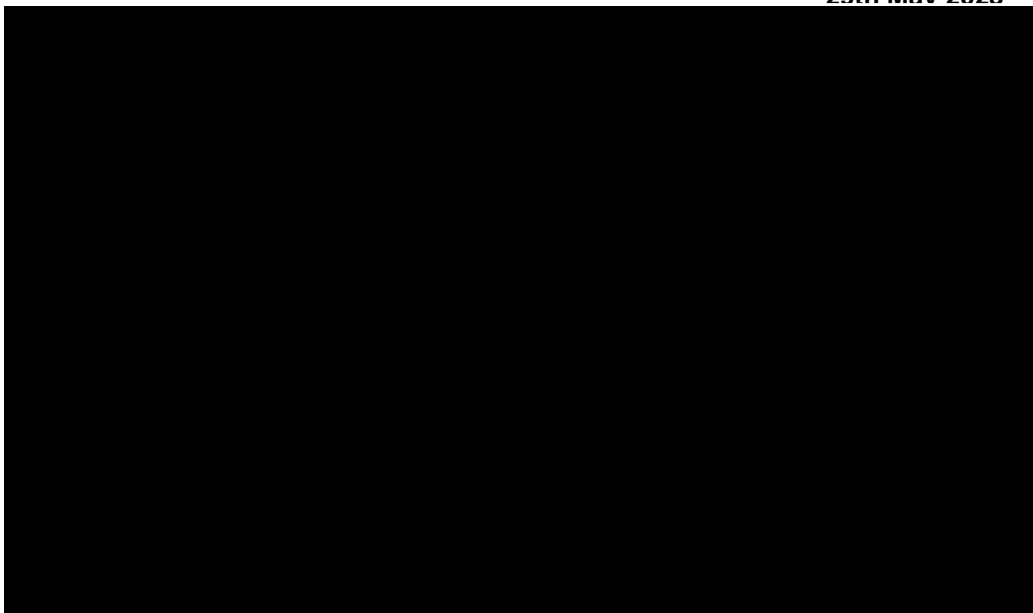
## **MINUTES AND DETERMINATION OF THE LIVERPOOL LOCAL PLANNING PANEL MEETING**

**Monday the 29<sup>th</sup> of May 2023**

Held online via  
MS Teams

Panel: Michael Mantei (Chair)  
Jason Perica  
Stuart McDonald  
Ellie Robertson

There were no conflicts of interest declared by any panel members in relation to any items on the agenda.

**LIVERPOOL CITY COUNCIL****LIVERPOOL LOCAL PLANNING PANEL MINUTES AND DETERMINATION  
PAGE 3****29th May 2023**

<b>ITEM No:</b>	3
<b>APPLICATION NUMBER:</b>	RZ-3/2022
<b>SUBJECT:</b>	Planning proposal to amend HOB and FSR of the LLEP 2008 relating to land at 93-145 Hoxton Park Road, 51 Maryvale Avenue & 260 Memorial Avenue, Liverpool NSW
<b>LOCATION:</b>	93-145 Hoxton Park Road, 51 Maryvale Avenue & 260 Memorial Avenue, Liverpool
<b>OWNER:</b>	91-143 Hoxton Park Road Liverpool – ABA Estate PTY LTD 260 Memorial Avenue Liverpool – NSW Trustee and Guardian 145 Hoxton Park Road Liverpool and 51 Maryvale Avenue Liverpool – Transport for New South Wales
<b>APPLICANT:</b>	ABA Estate Pty Ltd
<b>AUTHOR:</b>	Stephen Peterson

**ISSUES RELATED TO THE APPLICATION**

The Panel has considered the Council officer's report and the applicant's planning proposal report, draft DCP and supporting documents.

The Panel considers that a site-specific DCP containing the provisions summarised at page 86 of the Council officer's report is critical to ensure that the site is developed in a form that minimizes bulk and scale when viewed from Hoxton Park Rd, conserves existing vegetation and minimizes impact on the amenity of the adjoining low density residential development to the north.

**LIVERPOOL CITY COUNCIL****LIVERPOOL LOCAL PLANNING PANEL MINUTES AND DETERMINATION  
PAGE 4****29th May 2023**

The existing mature trees along the northern boundary of the site are an important feature of the site that must be largely retained in any redevelopment of the land. To that end, the Panel recommend Council obtain an arborist report from the applicant outlining measures necessary to protect significant trees in the subsequent development (basement and above ground building), and these findings be considered in the DCP controls.

The Panel recommends that Council officers reconsider the following aspects of the proposal:

- a) whether incentives ought to be included in the controls to encourage consolidation of the small lot adjoining the eastern boundary of the site (lot 5A DP 396839) with the development site;
- b) modelling of the potential maximum building envelope on the site to confirm that the GFA includes the site area of the access handle lots and adjustment of the envelopes if necessary;
- c) seek traffic engineering advice on the feasibility of additional vehicular access to Memorial Ave and (subject to consolidation of lot 5A with the development site) Maryvale Ave at the western and eastern ends of the site;
- d) if feasible, the suggestion in (c) above will improve wider traffic distribution, reduce impacts to neighbours of the site to the north, improve building design and separations, improve deep soil areas between buildings, improve the amenity of the civic spaces opposite the access handles, potentially allow separate basements and reduce the very long travel distances for residents in an alternate single consolidated basement.
- e) consider permitting small scale retail and food and drink premises on the site to encourage activation of the central community space within the site, noting that the limited scope for neighbourhood shops in the R4 zone.

Subject to reassessment of the FSR when the access handle areas are reconciled, the Panel a height of buildings or 20.5 m and FSR of 1.5:1 appropriate for the site.

**VOTING NUMBERS:**

4 – 0

**ADVICE OF PANEL:**

Following consideration of the matters outlined in the panel minutes, the planning proposal to amend HOB and FSR of the LLEP 2008 relating to land at 93-145 Hoxton Park Road, 51 Maryvale Avenue & 260 Memorial Avenue, Liverpool NSW be progressed to a gateway determination.

# Planning Proposal

**Amendment 98 to the Liverpool Local  
Environmental Plan 2008**

**22 Box Road Casula (Mimosa Park)**

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## Introduction

### Foreword

This Planning Proposal has been prepared to initiate an amendment to the *Liverpool Local Environmental Plan 2008* (LLEP 2008). The amendment involves the rezoning and reclassification (from community to operational land) of 22 Box Road, Casula (Lot 1103 DP 1051233), gazetted as Mimosa Park.

The Planning Proposal was referred 14 November 2022 who stated the planning proposal had strategic merit to proceed to Gateway Assessment.

### Overview of Planning Proposal

This planning proposal is Council initiated and intends to rezone and reclassify 22 Box Road Casula (Lot 1103 DP 1051233), locally known as Mimosa Park. The site, is a Council owned public reserve zoned RE1 Public Recreation within the *Liverpool Local Environmental Plan 2008* (LLEP 2008), and is approximately 565m<sup>2</sup> in size. The site is currently unembellished and underutilised and is bound by double storey single dwellings within the R2 Low Density Residential zone to the north west and south. It has frontage to a public road to the east (which is restricted to private vehicles via a bus filter).

In October 2020, Council resolved to allocate funds to undertake a feasibility study, environmental testing and a concept development for Mimosa Park. The investigation identified several risk pertaining to public safety, accessibility, fall heights and maintainability.

The recreational value of the site was found to be limited and at its Council ordinary meeting on 31 August 2022, it was resolved that Council:

1. *“Proceed with an amendment to Liverpool LEP 2008 to seek a rezoning for the property at Box Road, Casula (Lot 1103 DP 1051233) to R2 Low Density Residential and reclassification of the site to “operational” land for potential future sale with the proceeds from any future sale to be allocated for the embellishment of Jardine park.*
2. *That if a rezoning and reclassification process are approved as part of an amendment to the LEP, that a future report be presented to Council recommending methods of sale and establishing a reserve / minimum price for the property, prior to proceeding with any sale”*

### Report structure

This planning proposal has been prepared in accordance with Section 3.33 of the *Environmental Planning & Assessment Act 1979* with consideration to the Department of Planning and Environments (DPE) 'Local Environmental Plan Making Guideline' (September 2022). Accordingly, the proposal is discussed in the following parts:

- Introduction
- Part 1 – Objectives and intended outcomes
- Part 2 – Explanation of provisions
- Part 3 – Justification of strategic and site-specific merit
- Part 4 – Maps
- Part 5 – Community consultation
- Part 6 – Project timeline

### Site & Locality Description

The planning proposal relates to 22 Box Road, Casula (Lot 1103 DP 1051233). The subject site is shown in Figure 1 and locality context in Figure 2 below.



Figure 1: Subject site at 22 Box Road, Casula (Source: Nearmap)



Figure 2: Locality (Source: LCC Geocortex)

The site is also known as Mimosa Park, is a Council owned public reserve. It is a vacant block of land of approximately 565m<sup>2</sup>, currently zoned RE1 Public Recreation under the LLEP 2008. The site slopes approximately 4m from the Box Road street frontage to the west of the site, and has a gradient of close to 1:10. The site is currently constrained by access, as part of the road is closed along the sites frontage, to prevent Box Road being used as a bypass from the Hume Highway. The road still allows for pedestrian, bus and cycle access to the site. It is bound by low density residential development on the north, south and west frontages. The site has a limited functionality due to its size, access, safety and level change constraints. The context of the site is shown in the two figures below.



*Figure 3: Bus filter in front of the site, facing south.*



*Figure 4: View from the road, facing west.*

The surrounding development is of low density context, with the streetscape characterised by detached 2 storey dwellings. Residential land to the north, south and west is zoned R2 Low Density Residential, and land to the east is zoned R3 Medium Density Residential which predominantly contains low density dwellings, with a small number of multi-dwelling developments.

The site is approximately 1km from Casula Town Centre, containing library, recreation facilities and shops including Coles, Aldi and Kmart. The site is also located with 280m of a District Park, Peter Miller Reserve, which is currently well used by the community, and Jardine Park Casula, approximately 1.5km north east.

### Statutory Planning Framework

The site is zoned RE1 Public Recreation under the *Liverpool Local Environmental Plan 2008* (LLEP 2008) (**Figure 5**).

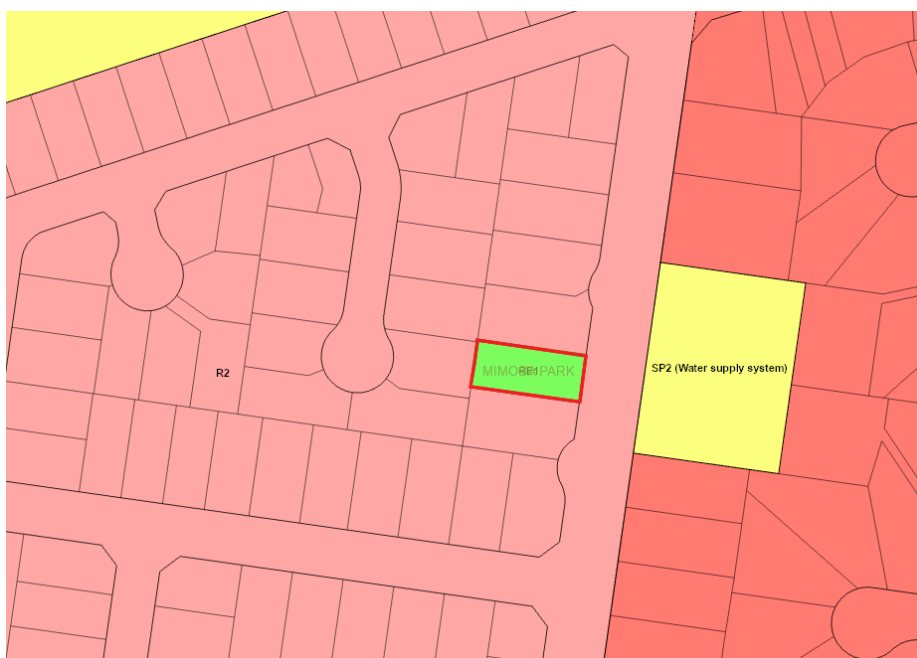


Figure 5 Zoning Map (Source LLEP 2008)

### Delegation of plan making functions

Council is seeking authority of plan making functions pursuant to Section 3.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

## Part 1 – Objectives and intended outcomes

The intent of the planning proposal is to facilitate the reclassification of No. 22 Box Road, Casula (Lot 1103 DP 1051233), a Council owned public reserve, from Community Land to Operational Land, and to enable its future development as a single dwelling within a low density residential area, as the site is deemed too constrained for its use as a quality public park.

At its meeting on 27 October 2020, Council considered a report on Mimosa Park, 22 Box Road, Casula and resolved to endorse Option 1 of the following two options:

- *Option 1: Mimosa Park to be kept as a local park and embellished.*
- *Option 2: Reclassify, rezone and dispose of Mimosa Park.*

Following this, a feasibility study, environmental testing, and conceptual development was undertaken. The study identified several risks including site topography, public safety, accessibility, fall heights, and maintainability. At its meeting, on 31 August 2022, Council resolved to:

*“That Council:*

1. *Proceed with an amendment to Liverpool LEP 2008 to seek a rezoning for the property at 22 Box Road, Casula (LOT 1103 DP 1051233) to R2 Low Density Residential and reclassification of the site to ‘operational land for potential future sale with proceeds from any future sale to be allocated for the embellishment of Jardine park*
2. *That if a rezoning and reclassification process are approved as part of an amendment to the LEP, that a further report be presented to Council recommending methods of sale and establishing an reserve / minimum price for the property, prior to proceedings with any sale.”*

Council intends to dispose of the site to allow redevelopment for low density residential purposes, as it is currently underutilised and not appropriate for further embellishment into a park. Low density residential is consistent with the character of the locality. The planning proposal will facilitate this outcome by rezoning the site so it can be redeveloped in the future. Applying the same LLEP 2008 development standards as observed in the locality will only facilitate the development of one dwelling. Funding from the sale of the site will be allocated to the embellishment of Jardine Park in Casula.

Council intends to extinguish the Public Reserve requirement on the DP for the site (and other minor encumbrances on the title of the land from historical Deposited Plans), as part of the reclassification to Operational Land.

At completion of the planning proposal, Council will then sell the site to allow for redevelopment. The funds generated from the sale will be used to embellish Jardine Park.

## Part 2 – Explanation of provisions

The planning proposal seeks to rezone Mimosa Park (a Council owned public reserve) from RE1 Public Recreation to R2 Low Density Residential, accompanied by changes to development standards and the reclassification from Community Land to Operational Land. The rezoning will allow for the development of a single dwelling house on the site.

The site currently has NIL Floor Space Ratio (FSR), Height of Building Controls (HOB), or minimum lot size control development standards. The planning proposal seeks to implement a FSR of 0.6:1, HOB of 8.5m and Minimum Lot Size of 300m<sup>2</sup> on the site, which are commensurate with adjacent R2 Low Density Residential development standards. This will ensure the development on site will be consistent with the surrounding area and streetscape.

The site has been identified unsuitable to embellish as a park. As such, it is required that the restriction on Lot 1103 DP 1051233 requiring “*The land within described is Public Reserve*” is extinguished as part of the reclassification, as it is not intended to be used as a park.

Additionally, other minor encumbrances on the Title Search for Lot 1103 DP 1051233 are proposed to be extinguished. It is noted these are not in relation to the public reserve use of the site, however are historical restrictions which no longer apply to the site, and are therefore irrelevant, as noted below.

*Table 1: Errors to be extinguished from Title Search Restrictions - Lot 1103 DP 1051233*

3	“DP1047363 Restriction(s) on the use of land referred to and numbered (2) in the S.88B Instrument affecting the part shown so burdened in the title diagram”	Extinguish, as this restriction is regarding fencing is from a historical DP (same as 5 below).
4	“DP1051230 Easement to drain water 1.2metre(s) wide appurtenant to the land above described”	Extinguish, as this restriction is from a historical DP, and is already listed in the current 88B Instrument.
5	“DP1051230 Restriction(s) on the use of land referred to and numbered (2) in the S.88B Instrument”	Extinguish, as this restriction is regarding fencing is from a historical DP (same as 3 above).

## Part 3 – Justification of strategic and site-specific merit

### Section A – Need for the planning proposal

#### *3.1 Is the planning proposal a result of an endorsed LSPS strategic study or report?*

The planning proposal is not the result of any endorsed strategic planning statement, strategic study or report. The planning proposal is as a result of a Council resolution. An assessment was carried out as to how the site could be developed for the purpose of open space, and the outcome of this assessment concluded that the site was unsuitable. The site is currently underutilised and Council intends to sell of the land, with all proceeds from the sale being allocated for the embellishment of Jardine Park, located 1.5km north east from the subject site.

#### *3.2 Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?*

The planning proposal is the best means of achieving the intended outcome, as the land is no longer intended to be used for a public purpose, it is required to be rezoned and reclassified to achieve its intended future use as a private dwelling.

### Section B – Relationship to the strategic planning framework

The Department of Planning and Environments, 9.1 Ministerial Directions '1.1 Implementation of Regional Plan', gives legal effect to the vision, land use strategy, goals, directions and actions contained in Regional Plan. It is considered that this planning proposal meets these tests outlined in the following section.

#### *3.3 Will the planning proposal give effect to the objectives and actions of the applicable regional or district plan or strategy (including any exhibited draft plans or strategies)?*

##### **a. Strategic Merit**

The planning proposal is generally consistent with relevant regional, sub-regional or district plan or strategies, where inconsistencies arise, they are justifiable. The most relevant State and District plans that guide the land use direction for the site, are:

- Greater Sydney Regional Plan – A Metropolis of Three Cities (Region Plan)
- Western City District Plan (District Plan)
- Liverpool Local Strategic Planning Statement 'Connected Liverpool 2040' (LSPS)

#### Greater Sydney Regional Plan – A Metropolis of Three Cities

The Greater Sydney Regional Plan – A metropolis of three cities was released in March 2018 and prepared by the Greater Cities Commission (formally Greater Sydney Commission). The Region Plan encompasses a global metropolis of three cities – the Western Parkland City, The Central River City and The Eastern Harbour City. The Liverpool LGA is located with the Western Parkland City. Consistency with the relevant parts of the regional plan is provided below :

Table 2 Consistency with the Regional Plan

Objective	Comment
<b>A city supported by infrastructure</b>	
Objective 4: Infrastructure use is optimised	<p>This objective aims to maximise asset utilisation to ensure higher levels of social, economic and environmental outcomes.</p> <p>This planning proposal is consistent with this objective. It is recognised that Mimosa Park is underutilised and able to accommodate low density residential without reducing accessibility to functional open space. Whilst it technically results in a reduction of open space, the funds raised from the sale of the land will embellish nearby Jardine Park. This is expected to increase the capacity of Jardine Park which is more functional and currently serves a larger population. Therefore, the planning proposal is considered consistent.</p>
<b>A city for people</b>	
Objective 6 Services and infrastructure meet communities' changing needs	<p>This objective advocates for the provision of social infrastructure to reflect the needs of the community.</p> <p>The population of Liverpool is growing, and whilst there is a need for additional open space within Liverpool, this pocket park is currently underutilised and not capable of facilitating an adaptable and usable space. Council officers conducted a risk assessment which found the existing site constraints (including topography, access, and drop off along the western boundary) were a safety concern and establishing a pocket park was not feasible.</p> <p>The planning proposal seeks to rezone the site to R2 Low Density, which will facilitate the redevelopment of 1 single dwelling. The funds generated will help embellish Jardine Park and increase its functionality.</p> <p>Therefore despite loss of open space, the proposal is justifiable loss in poor quality open space, in order to embellish Jardine Park, a larger space which can adapt over time to provide a range of different activities.</p>
<b>A city of great places</b>	
Objective 12 Great places that bring people together	<p>The direction aims to encourage well designed social infrastructure and attractive and enjoyable places. Great places are characterised by connectivity, accessibility and amenity.</p> <p>No. 22 Box Road does not have great accessibility for vehicles or pedestrians and the site slopes approximately 4m to the rear. By rezoning the site and selling the site, funds will be created to embellish Jardine Park which does offer high amenity and a people-friendly public realm. Therefore, the planning proposal is considered consistent.</p>
<b>A city in its landscape</b>	
Objective 31 – Public open space is accessible, protected and enhanced.	<p>Objective 31, states a key consideration for planning open spaces are quantity, quality and distribution. Access to high quality open space is becoming increasingly important as more people are living within high density housing.</p> <p>The objective also aims to enhance open space so it can meet a wider range of community needs. This can include better landscaping, more durable and higher quality facilities, better lighting and multi-use playing fields.</p>

Objective	Comment
	As stated throughout this report, No. 22 Box Road is not very accessible or safe. The sale will generate funds to embellish Jardine Park. Therefore despite the loss on public open space, the proposal is considered justified.

#### Western City District Plan

The site is located within the Western City District and the applicable District Plan is the Western City District Plan (2018), as established by the Greater Cities Commission in March 2018. Relevant directions from the Western City District Plan are noted at Table 2 below.

*Table 3 Consistency with the Western City District Plan*

Planning Priority	Comment
<b>A city for people</b>	
<i>Planning Priority W3: Providing services and social infrastructure to meet peoples changing needs</i>	<p>This priority acknowledges that facilities need to be accessible with direct and safe walking and cycling connections that can be used by all. It also notes that improving safety and accessibility benefits all residents and visitors, noting that public owned land presents opportunities to optimise social infrastructure.</p> <p>Council recognises that the subject site is currently underutilised, and even in an embellished form it would present risks to the community. Therefore its re-sale as residential land will allow for the enhancement of Jardine Park.</p>
<i>Planning Priority W6: Creating and renewing great places and local centres, and respecting the district heritage</i>	<p>This priority acknowledges a number of elements that create great places include:</p> <ul style="list-style-type: none"> <li>• Well-designed built environment (safe, clean and flexible spaces)</li> <li>• Social infrastructure (opportunities for social interaction and connections and access for all abilities)</li> <li>• Fine grain urban form (walkable, mix of land uses and accessible social infrastructure)</li> </ul> <p>The site does not offer a safe or accessible environment for a public park. As stated above, this rezoning will create the funds to embellish Jardine Park which reinforce the elements above. The rezoning will facilitate a single dwelling which is consistent with the residential context of the area.</p>

#### *3.4 Is the planning proposal consistent with a council LSPS that has been endorsed by the Planning Secretary or GSC, or another endorsed local strategy or strategic plan?*

#### Liverpool Local Strategic Planning Statement (LSPS)

Councils local strategic planning statement was endorsed in 2020. Assessment of consistency with the LSPS is below:

Table 4 Consistency with LSPS

Planning Priority	Comment
<b>Liveability</b>	
<i>Planning Priority 6 High-quality, plentiful and accessible community facilities, open space and infrastructure aligned with growth</i>	<p>Planning Priority 6 states that Liverpool City Council is committed to the delivery of high quality facilities. Specifically, this directions commits to:</p> <ul style="list-style-type: none"> <li>• Ensure community facilities, open space and recreation facilities meet the need of a growing population across the entire LGA</li> <li>• Increase public open space and work with key stakeholder to revitalize and develop parks and open space across the LGA</li> <li>• Priorities a collaborative approach towards community and social infrastructure planning.</li> </ul> <p>The site was identified as having low recreational value, and subsequently not being used to its full potential. This proposal will help revitalise Jardine Park in Casula, and also facilitate the redevelopment of 22 Box Road as a residential dwelling. The area is well serviced by infrastructure, including open space, and the reduction of this site will result in better open space outcomes for Casula, in comparison to the poor quality space provided at the site today.</p>

*3.5 Is the planning proposal consistent with any other applicable State or regional studies or strategies?*

The planning proposal is not inconsistent with SEPPs applying to the land. Further justification is explained in Table 4 and 5 below.

*3.6 Is the planning proposal consistent with applicable SEPPs?*

Several State Environmental Planning Policies (SEPPs) apply to the land. The consistency of the planning proposal with pertinent SEPPs has been provided in Table 4 below. It is noted that SEPPs which the planning proposal will not materially impact nor undermine have been omitted from Table 4.

Table 5 Consistency with State Environmental Planning Policies

State Environmental Planning Policy	Comment / Consistency
<b>Housing SEPP</b>	The Housing SEPP gives incentives to supply affordable housing in the right place. The redevelopment of this site is anticipated to facilitate one single dwelling. Therefore, not applicable.
<b>Transport and Infrastructure SEPP</b>	N/A
<b>Resilience and Hazard SEPP</b>	Chapter 4 of the Resilience and Hazard 2021 SEPP provides a state wide planning approach to the remediation of contaminated

State Environmental Planning Policy	Comment / Consistency
	land. It aims to remediate contaminated land for the purpose of reducing risk and harm to human health.  Council has conducted previous investigations on the site which has found it is unlikely to be contaminated. Investigations will continue to ensure this is the case. Therefore, consistent
Industry and Employment SEPP	N/A
Planning Systems	The SEPP identifies state and regionally significant development and provides considerations of the planning assessment. Therefore not applicable to this proposal.

*3.7 Is the planning proposal consistent with applicable Ministerial Directions (Section 9.1 directions)?*

*Table 6 Consistency with the Ministerial Directions*

Ministerial Direction	Comment / Consistency
Direction 1.1 Implementation of Regional Plan	The regional plan, district plan and local strategic planning statement is outlined through this report. It is considered consistent.
Direction 4.1 Flood Prone Land	The site is not identified as flood prone land or located within a flood planning area as per LLEP 2008 maps. Therefore, consistent.
Direction 4.3 Planning Bushfire Protection	The site is not identified as bushfire prone in a bushfire prone land map endorsed by the NSW Rural Fire service (RFS). Therefore, consistent.
4.4 Remediation of Contaminated Land	<p>The objective of this direction is to reduce the risk of harm to human health and the environment by ensuring that contamination and remediation are considered by the planning proposal authorises. It applies specifically where residential development is going to occur.</p> <p>Council has considered contamination as a risk on site due to the nature of illegal dumping on vacant land.</p> <p>In July 2021, a soil contamination assessment (SCA) including soil classification on subject site was conducted by Environmental Earth Science, investigated for the suitability of a park. The findings of the SCA are summarised below:</p> <ul style="list-style-type: none"> <li>• A surface inspection of the site identified domestic rubbish and minor building rubble along the western boundary wall. No other signs of contamination were evident at the site surface;</li> <li>• Ten test pits excavated to a maximum depth of 1.8m below ground level;</li> </ul>

	<ul style="list-style-type: none"> <li>The subsurface conditions encountered fill material mostly comprised of firm brown clay with minor inclusions of glass, brick, tile fragments to depth between 0.15m (ease side) and 0.5m bgl (west side) underlain by clay and dark grey shale cobbles and boulders; and</li> <li>No friable asbestos, asbestos fibres or bonded ACM were identified.</li> </ul> <p>The full investigation is attached. Council staff will continue to investigation to ensure alignment with this direction. However, the proposal is justifiably consistent with this direction.</p>
5.1 Integrating Land Use and Transport	The planning proposal seeks to rezone the site to R2 Low Density residential. The site has a frontage to an existing local road, however this road only permits walking and cycling. The proposal has been referred to Council's traffic team where it was advised that the road was previously closed to prevent through traffic, and could be re-opened if the proposal included traffic calming devices, and continued to permit walking and cycling. Whilst, this planning proposal does not improve access by active and public transport nor increase transport choice, it is considering to be an inconsistencies of a minor nature. As such, justifiably inconsistent.
5.2 Reserving Land for Public Purpose	The planning proposal seeks to facilitate the disposal of surplus Council land which is suitable for its use as a public reserve. The funds generated from the sale of the site will be used to embellish Jardine Park, Casula. The rezoning of this site is consistent with the objectives on this direction subject to agreement from the Secretary (or delegate).
6.1 Residential Zone	The rezoning of the site to R2 Low Density, will mean residential uses will become permissible. This direction will broaden the options available in Casula, as it is very rare for a vacant block to become available. It will also make more efficient uses of the existing land. It is therefore considered consistent.

### Section C – Environmental, social, and economic impact

#### 3.8 *Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected because of the proposal?*

The site is currently a vacant grassy lot with minimal vegetation. The planning proposal is not expected to affect any critical habitat or threatened species, populations, or ecological communities. The site is not mapped as Environmentally Significant Land under the LLEP 2008, and redevelopment for a single dwelling is likely to add further vegetation to the site which will support local ecosystems.

#### 3.9 *Are there any other likely environmental effects of the planning proposal and how are they proposed to be managed?*

##### Stormwater Drainage:

The site contains a drainage easement that runs along the northern boundary. The subject easement is 1.2m wide, and benefits and burdens the Lot 1103 DP 10511233. The proposal was referred to Council Development Engineer who stated any future dwelling could connect to the easement.

Drainage design will be considered as part of the Development Application assessment.

#### Site Access

The site is currently constrained by access with the existing road section along the subject site closed to vehicles, however does permit walking and cycling. This occurred to prevent through traffic to ensure the road was not used as a bypass road from the Hume Highway to Casula Town Centre.

The subject proposal was referred to Council Traffic Management team, who stated vehicular access to the site could be extended as long as the extension included traffic calming devices and continued to permit walking and cycling.

The proposed rezoning is expected to generate 1 vehicle trip per hour, this will not have a noticeable impact on Box Road.

#### Development controls

The subject rezoning will facilitate the redevelopment of one single dwelling. The planning proposal will apply FSR and HOB controls same as the adjoining R2 Low Density Residential zone. As this will result in a 300m<sup>2</sup> minimum lot size, the site is not able to undergo residential subdivision, and will be limited to one future dwelling.

As part of the Development Application stage, the site will be subject to the controls outlined Liverpool Development Control Plan 2008.

### *3.10 Has the planning proposal adequately addressed any social and economic effects?*

#### Economic effects

The planning proposal is not expected to have any negative economic effects. The sale of the site will generate additional funds for Council to embellish Jardine Park in Casula, to increase its functionality. The development of a single dwelling will generate small scale economic benefits through construction.

#### Social effects

The rezoning of the site is expected to have positive social outcomes, despite the loss of public open space. Council initially planned to embellish the site for increased public use, however further investigation identified safety issues with the sites suitability for a public park. In its current state and/or even in an embellished state, the site poses safety risks, as there is low visibility from street and minimal passive surveillance due to the slope and the land being fenced in by

neighbouring residences. The site is more conducive to development for a dwelling and not a pocket park.

The redevelopment as a single dwelling will activate the streets frontage and provide more security to adjacent dwellings than an open park would. The funds generated by the sale will contribute to the embellishment of Jardine Park in Casula, which will enhance this existing community asset. Therefore, despite the loss of open space, the proposal results in positive social outcomes.

#### **Section D – Infrastructure (local, state and commonwealth)**

##### *3.11 Is there adequate public infrastructure for the planning proposal?*

The subject site is located in Casula which is a developed residential area with adequate public infrastructure to accommodate for the additional dwelling on the subject site.

#### **Section E – State and commonwealth interests**

##### *3.12 What are the views of state and federal public authorities and government agencies consulted in order to inform the Gateway determination?*

As a part of the Gateway determination, relevant public authorities will be identified who are to be consulted in relation to the planning proposal. The referral advice provided by the public authorities will be considered, following consultation in the public exhibition period.

## Part 4 – Maps

To facilitate the proposed changes, the follow LEP 2008 maps is to be amended:

### Floor Space Ratio

- FSR\_013 (4900\_COM\_FSR\_013\_020\_20210318)

### Height of Buildings

- HOB\_013 (4900\_COM\_HOB\_013\_020\_20210318)

### Zoning

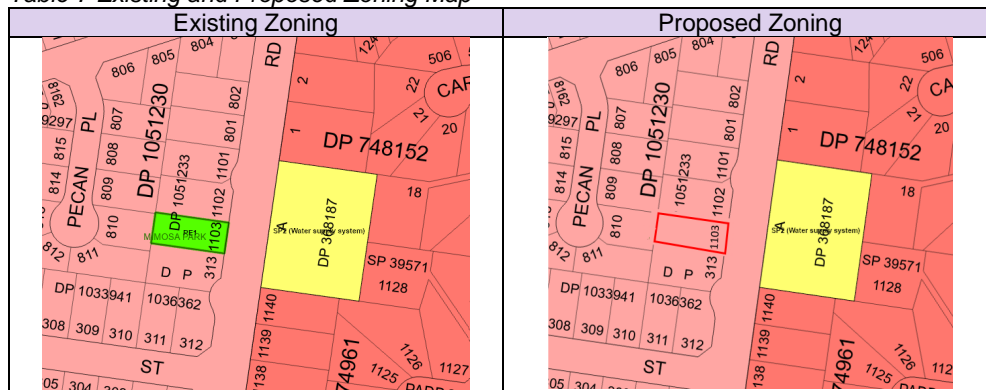
- LZN\_013 (4900\_COM\_LZN)013\_020\_20210318)

### Lot Size:

- LSZ\_013 (4900\_COM\_LSZ\_013\_020\_20210318)

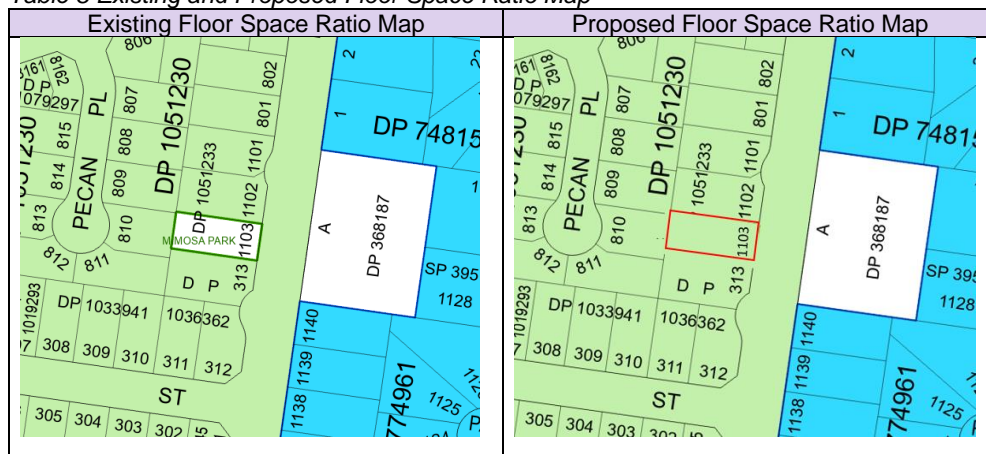
## Land Use Zoning

Table 7 Existing and Proposed Zoning Map



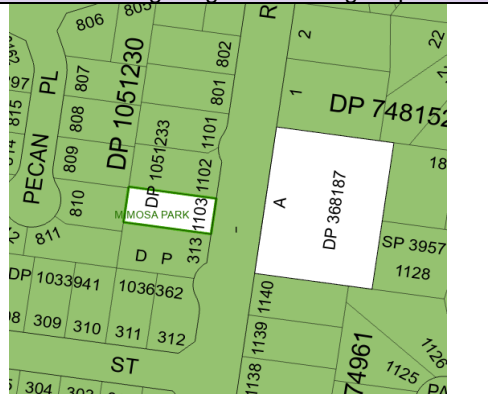
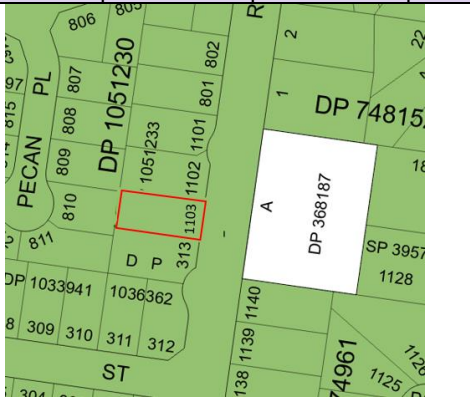
## Floor Space Ratio Maps

Table 8 Existing and Proposed Floor Space Ratio Map



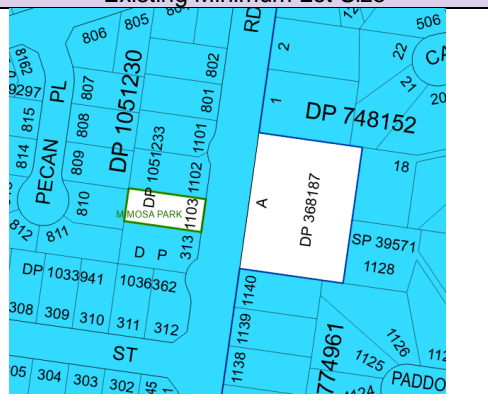
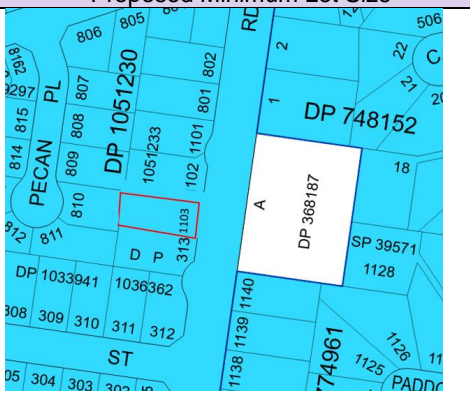
### Height of Building Maps

Table 9 Existing and Proposed Height of Building Map

Existing Height of Building Map	Proposed Floor Space Ratio Map
	

### Minimum Lot Size Maps

Table 10 Existing and Proposed Lot Size Map

Existing Minimum Lot Size	Proposed Minimum Lot Size
	

## Part 5 – Community consultation

Schedule 1, Clause 4 of the EP&A Act requires the relevant planning authority to consult with the community in accordance with the Gateway determination. The planning proposal will be publicly exhibited for at least 28 days in accordance with DPE's 'Local Environmental Plan Making Guideline' (September 2022). The planning proposal exhibition will also be carried out in accordance with Council's Community Participation Plan.

The site is required to be reclassified from Community to Operational, and under the *Local Government Act 1993* Clause 29 requires Council to arrange a Public Hearing. The requirements outlined in the *Local Government Act 1993* will be dealt with during the community consultation period.

## Part 6 – Project timeline

An anticipated project timeline is shown in Table 10.

Table 11 Anticipated Project Timeline

Timeframe	Action
February 2023	Report to Council for endorsement
March 2023	Submission to DPE for Gateway Assessment
May 2023	Gateway Determination issued
June - July 2023	State agency consultation
June - July 2023	Community consultation
August 2023	Consideration of submissions and proposal post-exhibition
September	Post-exhibition report to Council
October 2023	Legal drafting and making of the plan

## Appendices

1. Fact Sheet
2. Gateway Determination
3. Classification and Re-classification of land Practice Note
4. Checklist for reclassifying Land
5. Local Planning Panel Report
6. Local Planning Panel Minutes
7. Safety Design Report
8. Soil Contamination (Mimosa Park)
9. Title Search, Lot and DP and 88b Instrument
10. Minutes of Ordinary Council Meeting 29 March 2023

11.



## Department of Planning and Environment

### Gateway Determination

**Planning proposal (Department Ref: PP-2023-701):** To reclassify public open space from 'community' land to 'operational' land and rezone to R2 Low Density Residential and apply corresponding development controls at 22 Box Road, Casula.

I, the Director, Agile Planning at the Department of Planning and Environment, as delegate of the Minister for Planning and Public Spaces, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (the Act) that an amendment to the Liverpool Local Environmental Plan 2008 to reclassify public open space from 'community' land to 'operational' land and rezone to R2 Low Density Residential and apply corresponding development controls at 22 Box Road, Casula should proceed subject to the following conditions:

1. Prior to community consultation, the planning proposal is to be updated to:
  - (a) Address the proposed changes to development standards associated with the rezoning,
  - (b) Clarify that the site is a Council owned public reserve and that as part of the planning proposal Council is extinguishing interests,
  - (c) Remove the Land Reclassification (Part Lots) Map,
  - (d) Provide a copy of the Deposited Plan and the details of all the dealings, interests and easements registered on the Title for Lot 1103 DP 1051233 and clarify what the planning proposal is seeking to extinguish and the justification for this.
  - (e) Address Ministerial Direction 5.2 Reserving Land for Public Purposes and 5.1 Integrating Land Use and Transport.
  - (f) Attached a copy of the Local Planning Panel advice and Practice Note 16-001.
2. Public exhibition is required under section 3.34(2)(c) and clause 4 of Schedule 1 to the Act as follows:
  - (g) the planning proposal is categorised as standard as described in the *Local Environmental Plan Making Guidelines* (Department of Planning and Environment, 2021) and must be made publicly available for a minimum of 20 working days; and
  - (h) the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in *Local Environmental Plan Making Guidelines* (Department of Planning and Environment, 2021).
3. Consultation is required with the following public authorities and government agencies under section 3.34(2)(d) of the Act and/or to comply with the requirements of applicable directions of the Minister under section 9 of the EP&A Act:
  - Relevant utility providers, including Sydney Water.

Each public authority is to be provided with a copy of the planning proposal and any relevant supporting material via the NSW Planning Portal and given at least 30 working days to comment on the proposal.

4. A public hearing is required to be held in accordance with the Local Government Act 1993 and the Department's Practice Note PN 16-001.
5. A public hearing is not required to be held into the matter by any person or body under section 3.34(2)(e) of the EP&A Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing.
6. Given the nature of the proposal, Council is not authorised to be the local plan-making authority.
7. The LEP should be completed on or before 28 March 2024.

Dated 6th day of June 2023.



**Louise McMahon**  
**Director, Agile Planning**  
**Digital, Coordination, Digital and Insights**  
**Department of Planning and Environment**

**Delegate of the Minister for Planning and**  
**Public Spaces**



**ENVIRONMENTAL EARTH  
SCIENCES**  
CONTAMINATION RESOLVED

# SOIL CONTAMINATION ASSESSMENT AT MIMOSA PARK, 22 BOX ROAD, CASULA, NSW LIVERPOOL CITY COUNCIL

3 OCTOBER 2023  
121070  
VERSION 3





3 October 2023

**Liverpool City Council**

3 Hoxton Park Road  
Liverpool NSW 2170

Attention: **Earin Short**  
Contaminated Land Officer

**Soil Contamination Assessment at Mimosa Park, 22 Box Road, Casula, NSW.**

Please find enclosed a copy of our report entitled as above. Thank you for the opportunity to undertake this work. Should you have any queries, please do not hesitate to contact us on (02) 9922 1777.

For and on behalf of  
**Environmental Earth Sciences NSW**

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## EXECUTIVE SUMMARY

### Introduction and objectives

Environmental Earth Sciences NSW was engaged by Liverpool City Council (LCC) in 2021 to undertake a soil contamination assessment (SCA) at Mimosa Park located in Casula, NSW and identified as Lot 1103 in Deposited Plan (DP) 1051233, hereafter referred to as the “site” in order to facilitate the proposed children’s playground at the site. The SCA was completed in 2021. Subsequently, council concluded that the site was no longer fit for development of a children’s playground and decided to divest the land to eventually be used for residential purposes. This requires an update to the original report comparing findings to residential land use criteria. The objectives of the assessment are to evaluate the site’s suitability for residential land use and provide information in regard to worker safety and material management.

### Scope of work

The scope of work included a review of site history information including aerial photographs, publicly available maps relating to soils, topography, geology, hydrogeology, acid sulfate soils and salinity. An initial site inspection and intrusive soil investigation was completed in September 2021 followed by the preparation of this report on the findings of the SCA. A subsequent site visit was undertaken in 2023 to identify any potential changes to the site since the initial SCA was completed. The updated SCA also compared initial investigation results to residential (A) land use criteria.

### Findings

Based on the results of the soil contamination assessment, the following findings were made:

- The site is a vacant undeveloped parcel of land located in Casula that was initially part of a much larger property that was used for agricultural/ market garden purposes between the mid 1970s and the early 2000s. The broader property was developed for residential purposes from the early 2000s. The site has not been developed.
- During the site inspection in 2021, domestic rubbish including empty food cans and plastic pipes and minor building rubble including concrete pieces and minor brick and tile fragments were noted along the western boundary wall. This was still present in 2023. Evidence of gross contamination (including potential ACM) or staining was not evidenced at the site surface during either site visit.
- Scaffolding, skip bin and building equipment/ supplies identified in 2021 had since been removed.
- The reported concentrations of TRH, BTEX, PAH and Heavy metals were below the laboratory’s limit of reporting (LOR) and / or the applicable health and ecologically based criteria for both recreational (land use C) and residential (land use A) land uses.



### Conclusion and recommendations

Based upon findings from the desktop study, review of historical information, site observations (September 2021, August and September 2023), intrusive investigation and laboratory results, Environmental Earth Sciences considers that the site presents a LOW risk to human health and the environment in both a recreational and residential land use scenario noting that surficial rubbish and some anthropogenic fill material is present.

In view of the findings of the assessment and the presence of non-hazardous inert foreign material of low concern, it is recommended that an unexpected finds protocol (UFP) be adopted to manage potential contamination and or hazardous materials which may be encountered.



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## 1 INTRODUCTION

Environmental Earth Sciences NSW was engaged by Liverpool City Council (LCC) in 2021 to undertake a soil contamination assessment (SCA) at Mimosa Park located in Casula, NSW and identified as Lot 1103 in Deposited Plan (DP) 1051233, hereafter referred to as the “site” in order to facilitate the proposed children’s playground at the site. The SCA was completed in 2021 (Environmental Earth Sciences 2021) and Council subsequently assessed that the site was no longer suitable for development of a children’s playground and decided to divest the land for residential purposes.

The site location and extent are presented in **Figures 1 and 2**.

In accordance with the requirements of the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (National Environment Protection Council (NEPC) 2013, (ASC NEPM, 2013), this assessment aims to identify potential:

- Sources of contamination, historical contaminating uses and impacted areas;
- Contaminants of concern associated with identified sources of impact or contaminated areas;
- Potentially affected media (i.e. soil); and
- Human and ecological receptors.

The purpose of collecting basic site information is to formulate a conceptual site model (CSM) to assess contamination exposure linkages to identified receptors, following a review of site history, physical setting and site conditions.

In 2021 consideration was given to the continuing land usage for this property (being RE1 – Public recreation). The updated report will look at site suitability from a residential land use perspective. The assessment will inform recommendations for further detailed assessment and/or remediation (if required).

Additionally, a waste classification report for surface soils across the site was submitted in 2021. The waste classification (Environmental Earth Sciences 2021b) was prepared for the disposal of potential surplus material during construction of the proposed park upgrade. This has been reported separately.

This report should be read in conjunction with the limitations and appendices contained within the original proposal (ref: PO12134\_V1 dated 16 July 2021), variation 1 (ref: 121070VR01V01 dated 1 August 2023) and the limitations detailed at the end of this report.

## 2 OBJECTIVES

The objectives of the assessment are to:



- evaluate the site's suitability for residential land use; and
- provide information in regard to worker safety and material management.

### 3 STATUTORY GUIDELINES

The SCA was conducted in general accordance with the following guidance made or approved by the NSW Environment Protection Authority (EPA) in accordance with the *Contaminated Land Management Act 1997* (CLM Act):

- National Environment Protection Council (NEPC) (2013) - *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)* (ASC NEPM).
- NSW EPA (2017) - *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition)*.
- NSW EPA (2020) - *Contaminated Guidelines: Consultants reporting on contaminated land*.

### 4 SCOPE OF WORK

The following scope of work was completed as part of the initial SCA completed in 2021:

- Site history review including:
  - Inspection of current and historical aerial photographs of the site.
  - Review of publicly available maps relating to topography, geology, hydrogeological, and acid sulfate soils.
  - Review of publicly available EPA records including the Contaminated Land Management Record of Notices, the Protection of the Environment Operations Public Register, and List of NSW Contaminated Sites Notified to EPA.
- Site inspection and intrusive investigation including:
  - A detailed site walkover, assessing current site features, potential sources of contamination and contaminated areas, and where possible noted potentially contaminating offsite activities.
  - An intrusive soil investigation of the site to assess the extent of on-site soil contamination and areas of concern. This involved the excavation of ten test pits across the site to inspect ground conditions and collect soil samples for subsequent laboratory analysis of contaminants of potential concern (COPC).



- Preparation of this report on results of the SCA.

The following scope of work was completed as part of the updated SCA completed in 2023:

- Confirmatory site visit to identify potential change(s) in land use/ contamination status since completion of the SCA in 2021.
- Assessment of laboratory data from the SCA against appropriate guidelines for residential land use.
- Assessment of potential data gaps in relation to residential land use.
- Update of SCA report based on the findings of the additional work proposed herein.

## 5 ENVIRONMENTAL SETTING

### 5.1 Location and property description

The site is comprised of a rectangular lot situated in a residential area. Site identification details are provided in **Table 1** below.

**Table 1: Site identification**

Item	Details
Site Owner	Liverpool City Council
Address	22 Box Road, Casula, NSW
Lot & Plan number	Lot 1103 in DP 1051233
Area	565 m <sup>2</sup>
Current zoning	RE1 – Public Recreation
Site location and layout	<b>Figure 1</b> and <b>Figure 2</b>

### 5.2 Surrounding features

Features of surrounding land uses identified in the immediate vicinity of the site, as observed during fieldwork and from current aerial imagery are summarised in **Table 2** below.

**Table 2: Surrounding site uses**

Direction	Description
North	Residential premises. The M5 Motorway is located approximately 130 m north of the site.
South	Residential premises. Commercial/ industrial premises are located about 500 m south east of the site.



Direction	Description
East	A Sydney water reservoir tank is situated on the other side of Box Road, beyond which are residential premises followed by the ground of Casula High School (approx. 180 m to the east).
West	Residential premises beyond which is Peter Miller park, playing fields and recreational park (approx. 175 m to the west)

### 5.3 Sensitive receptors

The nearest sensitive human receptors include current and future site users as well as residents of neighbouring properties, occupants of Casula High School, and users of Peter Millar park.

The nearest sensitive environmental receptors include ecological communities which inhabit the soil, groundwater associated with the site itself.

### 5.4 General environmental setting

Detailed information on the geology, soils, topography, vegetation, and hydrogeology are provided in the reports and maps presented in **Appendix A**.

#### 5.4.1 Geology

The Penrith 1:100 000 Geological series sheet (Herbert and Smith, 1991), describes the lithology of the site as being shale, carbonaceous claystone, laminite, lithic sandstone and occurrences of coal.

#### 5.4.2 Soils

The soils at the site are classified in the Soil Landscapes of the Penrith 1:100 000 Geological series sheet (Herbert and Smith, 1991) as belonging to the Blacktown residual soil landscape. The site is situated upon sedimentary Bringelly shales belonging to the Wianamatta Group of shales. A soil landscape is an area of land that has recognisable and specifiable topographies and soils. The Blacktown soil landscape is characterised by shallow to moderately deep, hard setting mottled texture contrast soil, typically red and brown in colour which corresponds to the natural subsurface soils noted across the site. Limitations of Blacktown landscape soils include Seasonal waterlogging (localised), water erosion hazard (slight to moderate), surface movement potential (localised). Refer to **Appendix B** for the detailed soil landscape.

#### 5.4.3 Topography, drainage and hydrology

Herbert and Smith (1991) describe the regional topography as being characterised by gently undulating rises with a local relief up to 30 m and slopes of >5%. The site is gently sloping downwards towards the west with the eastern portion of the site sitting on a broad crest in the landscape at approximate elevation of 72 meters Australian Heights Datum (mAHD) dipping to ~68 mAHD in the west.



#### 5.4.4 Vegetation

The dominant vegetative species of the Blacktown soil landscape include *Eucalyptus tereticornis* (forest red gum), *E. crebra* (narrow-leaved ironbark), *E. moluccana* (grey box) and *E. maculata* (spotted gum). The region, which once comprised of dry sclerophyll forest, has been historically cleared and is now used for medium and low-density housing. The site is grassed with no trees or shrubs.

#### 5.4.5 Acid sulfate soil risk

The potential acid sulfate soils (PASS) risk maps published in the Liverpool Local Environmental Plan 2008 indicates that the site is not mapped within an acid sulfate soils risk management zone. It is also not within 500 m of any 'Category 1 or 2' PASS risk sites and therefore it is considered low risk at the site.

#### 5.4.6 Hydrogeology and drainage

There are no natural surface water features onsite. The site is covered with grassy vegetation, therefore precipitation will percolate directly into surface soils and into local groundwater. The New South Wales (NSW) Department of Infrastructure, Planning and Natural Resource (DIPNR) (2002), *Salinity Potential in Western Sydney 2002* identifies the site as having a very high salinity potential.

For full reports of salinity and hydrogeological information please see **Map 1.4a of Appendix A**.

#### 5.4.7 Nearby groundwater bores

An online search for groundwater bores registered with WaterNSW (<https://realtime.data.watarnsw.com.au/water.stm>, accessed 27 September 2021) indicates that there are no registered bores located within a 500 m radius of the site.

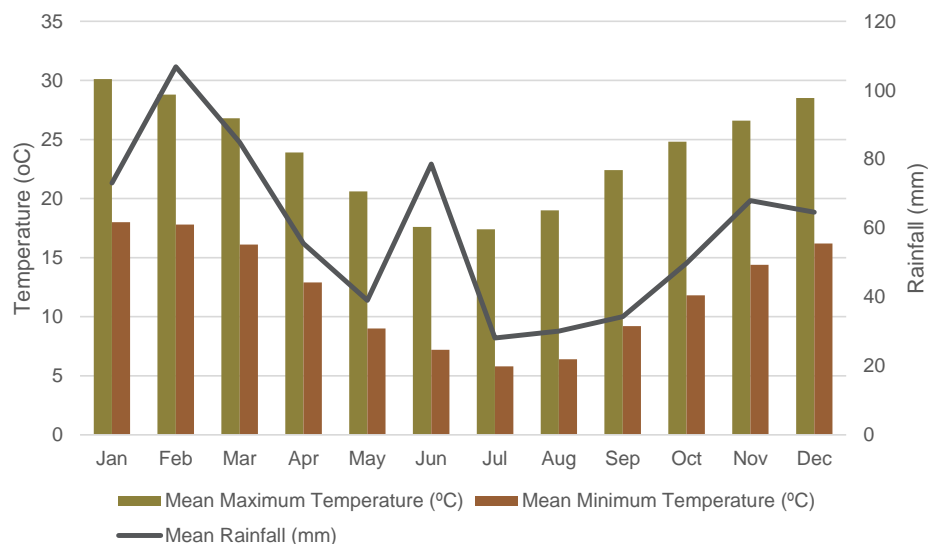
#### 5.4.8 Groundwater dependent ecosystems

A search of the groundwater dependent ecosystems atlas (GDE) (<http://www.bom.gov.au/water/groundwater/gde/map.shtml> accessed 6 August 2021) indicates that there are no ecosystems at or near the site that have potential to rely on site groundwater.

### 5.5 Climate and meteorology

The site is located within an area of moderate to high rainfall in the centre of the Western Sydney region. Regional meteorological data has been sourced from the Bureau of Meteorology ([www.bom.gov.au](http://www.bom.gov.au), accessed 6 August 2021). The rainfall mean, maximum and mean minimum monthly temperature data were received from Holsworthy Aerodrome automatic weather station (AWS) (no. 066161) located approximately 7.3 km to the south east of the site. Average monthly rainfall mean, maximum and minimum monthly temperatures were calculated between 2012 and present and presented in **Chart A** below.

#### **Chart A: Average monthly climate data (2012 to August 2021)**



## 6 HISTORICAL REVIEW

This section includes a review of:

- Available historic aerial photography;
- Records held by the NSW EPA including:
  - POEO Public Register;
  - Contaminated Land Record; and
  - Contaminated Sites Register.
- The underground petroleum storage system (UPSS) regulation sensitive zones map for the area.

### 6.1 Historical aerial photograph review

A review of aerial photographs and other available imagery of the site is summarised in **Table 3**. Historical aerial photographs are presented in **Appendix C**. The earliest historical photograph available for the site is from 1930.

**Table 3: Site historical aerial photographs**

Year	Colour / B & W	Notes
1930 - 1970	B & W	<p><b>Site:</b> Historic clearing is evident as the site is sparsely vegetated. The site is undeveloped.</p> <p><b>Site surrounds:</b> Mostly cleared for grazing/agriculture over the time period with some remnant forest to the sites west. Rural residential properties and open agricultural fields gradually established to the sites north, south and east.</p> <p>Sydney water reservoir constructed in 1965.</p> <p>Greater portion of land to north and south cleared for market gardening in 1970.</p>
1975 - 1998	B & W (’75 to ’78) Colour (’61 to ’98)	<p><b>Site:</b> Cleared for market gardening (1975) with evidence of usage through to 1978 after which field appear to be fallow or abandoned.</p> <p><b>Site surrounds:</b> surrounding areas cleared for market gardening and in use until 1978.</p> <p>Urban development begins far to the sites north in 1975 and again to the sites east in 1991 followed by the construction of the M5 motorway in 1994.</p>
2005 - 2021	Colour	<p><b>Site:</b> Site clear, no construction occurring onsite.</p> <p><b>Site surrounds:</b> Development of area surrounding the site begins in 2005 and pushes west over the period culminating with the development of peter miller reserve in 2015 after which the area is in its present day state.</p>

**Notes:** Historical imagery sourced from Land Insight & Resources.

## 6.2 NSW EPA Regulatory Searches

### 6.2.1 POEO Public Register

A search of the NSW EPA POEO Public Register for Environment Protection licences, applications, notices, audits or pollution studies and reduction programs in the suburb of Casula was conducted on 26 September 2021.

The search results indicate a clean-up notice was issued on 17 March 2017 to Casula High School, approximately 200 m east of the site, related to the removal of asbestos waste.

The clean-up notice required Council to have the school site remediated including engaging an environmental consultant to prepare a remedial action plan and site validation report (following remediation) as well as engaging an NSW EPA accredit Site Auditor to certify whether the school site was suitable for continued use as a school. It is understood that the remediation was completed by Terra Civil during the December 2017 / January 2018 school holidays. The site validation report was prepared by Douglas Partners and the Site Audit was completed by Ms Rowena Salmon.

Given the distance to the school and the limited mobility of the contaminant (being asbestos), the likelihood of contamination at the school to impact the site is considered to be low.



The location of the school is shown on **Map 3.3 of Appendix A** and a copy of the clean-up notice is provided in **Appendix D**.

#### 6.2.2 Contaminated Land Record

A search of the NSW EPA Contaminated Land Record for the suburb of Casula was conducted on 26 September 2021. The search did not provide any results.

#### 6.2.3 Contaminated Sites Register

The search of the list of notified contaminated sites<sup>1</sup> conducted on 26 September 2021 indicates the site has not been notified as potentially contaminated.

### 6.3 Underground petroleum storage system regulation – sensitive zones map

Review of the Department of Environment, Climate Change and Water (NSW) (2010) Underground Petroleum Storage System (UPSS) regulation sensitive zones map indicated that the site is not located within a sensitive zone. The above-mentioned map is presented in **Map 2.1 of Appendix A**.

### 6.4 Site history summary

Based on the results of the site history review, the site had been undeveloped since at least the 1930s until the mid-1970s when it was used for agricultural/ market garden purposes. During the early 2000s, use of the site for agricultural/ market garden purposes stopped as the surrounding land (and site) was developed for residential purposes. The site has been undeveloped since the early 2000s. There is no indication that the site was used for industrial or commercial purposes.

## 7 FIELD PROGRAM

A site inspection and intrusive soil investigation were undertaken on 17 September 2021 by Environmental Earth Sciences to assess the current site condition and collect representative soil samples. Site features and sampling locations are detailed on **Figure 2** with Photo Plates of site features and representative soil profiles provided in **Appendix E**.

An additional site visit was conducted 24 August 2023 to identify potential changes to the site since completion of the initial investigation. Photographs from the second site visit are also provided in **Appendix E**.

<sup>1</sup> <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/clm/site-list/contaminated-sites-list-pdf-september-2021.pdf?la=en&hash=262170C939D0AD2BE5DFAE8928B521D093DF4216>



## 7.1 Site observations

### 7.1.1 Initial site inspection

During the initial site inspection completed on 17 September 2021, the site was vegetated with long grass and bounded to the south, west and north by residential properties and to the east by Box Road.

The topography of the site sloped downwards to the west which is consistent with local topography. A retaining wall was located at the western site boundary, the change in elevation to the neighbouring property is approximately three metres.

At the time of the inspection, domestic rubbish including empty food cans and plastic pipes and minor building rubble including concrete pieces and minor brick and tile fragments were noted along the western boundary wall. Scaffolding was present along the southern boundary to facilitate construction of the dwelling to the south. A dumpster (approx. volume of 10 m<sup>3</sup>), filled with building material, was located in the southeastern corner of the site.

Evidence of gross contamination (including potential asbestos containing materials (ACM) or staining was not evidenced at the site surface. No evidence of potential sources of contamination such as areas fuel/ chemical storage were observed at the site.

### 7.1.2 Subsequent site inspection

A subsequent site visit was conducted on 24 August 2023 to identify any potential changes to the site since the first inspection was completed. The site appeared to be similar to what was observed in 2021 with residential properties found to the north, south and east. The topography and vegetation remained similar to that observed in 2021.

The site was vacant as the scaffolding and skip bin, present in 2021, used in the construction of the adjacent property had been removed.

The domestic rubbish identified in 2021 was still present on site. This included minor building rubble, domestic rubbish, black corrugated piping and paint tins.

Evidence of gross contamination (including potential asbestos containing materials (ACM) or staining was not evidenced at the site surface. No evidence of potential sources of contamination such as areas fuel/ chemical storage were observed at the site.

## 7.2 Intrusive soil investigation

Soil sampling was undertaken on 17 September 2021 to assess the nature and extent of potential soil contamination. The recommended minimum number of sampling points required for site characterisation per the *Sampling Design Guidelines* (NSW EPA 1995) for a site with an area of 565 m<sup>2</sup> is six sampling points. To provide appropriate coverage of the site, sampling was conducted at ten locations based on a judgemental/ grid-based sampling pattern, refer **Figure 2**.

Since the intrusive investigation was completed in September 2021, the NSW EPA (1995) *Sampling Design Guidelines* were replaced by the NSW EPA (2022) *Contaminated land*



*guidelines: Sampling design part 1 – application*, which revised the minimum number of sampling points. The minimum number of sampling points for a square grid based on site area per NSW EPA (2022) is eight locations for a site area less than 0.2 ha. As evidence of contamination post September 2021 was not identified (refer Section 7.1.2) and sampling was conducted at ten locations in 2021, which exceeded the minimum per NSW EPA (2022) further sampling was not conducted in August 2023.

The sampling included excavating ten test pits across the site using a 5-tonne excavator. During sampling, the soil characteristics including lithology, extent of lithology, colour, odour, and other inclusions were recorded on test pit logs, which are provided in **Appendix F**.

Representative soil samples were collected, with discrete sampling being undertaken from each identified soil layer. Soil samples were collected from the centre of the excavator bucket with a new pair of gloves were used at each sampling location.

Samples collected for assessment of asbestos soil contamination in accordance with Schedules B1 and B2 of the NEPM were processed on site by sieving approx. 10 L of soil through a 7 mm sieve before collecting a 500 g sample for laboratory analysis.

The samples were placed into laboratory supplied glass jars and transported to the laboratory in a chilled container under full chain-of-custody documentation. The laboratory was accredited with the National Association of Testing Authorities (NATA) for each analytical method used. Sampling of soil was conducted in accordance with the following:

- Standards Australia (1999) - *Guide to the investigation and sampling of sites with potentially contaminated soil, Part 2: Volatile substances* (AS 4482.2), Standards Australia, Homebush, NSW
- Standards Australia (2005) - *Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds* (AS 4482.1), Standards Australia, Sydney, NSW
- Environmental Earth Sciences NSW (2010) - *Procedures for field, laboratory and reporting quality assurance and quality control manual*.
- Environmental Earth Sciences (2011) - *Soil, gas and groundwater sampling manual*, 7<sup>th</sup> Edition (Unpublished).

## 8 LABORATORY ANALYSIS

Seven soil samples were submitted to Australian Laboratory services (ALS) for chemical testing and Australian Safer Environment and Technology (ASET) for asbestos testing. Both laboratories NATA accredited for the methods used.

The soil samples were submitted to the laboratory for the following analysis:

- Heavy metals (As, Cd, Cu, CrTOTAL, Pb, Hg, Ni, Zn);



- Total Recoverable Hydrocarbons (TRH) (Fractions C<sub>6</sub>-C<sub>40</sub>);
- Benzene, Toluene, Ethylbenzene and Total xylenes (BTEX);
- Polycyclic Aromatic Hydrocarbons (PAH); and
- Asbestos Weight for Weight (w/w) NEPM specification.

## 9 PROCEDURES FOR QUALITY CONTROL AND QUALITY ASSURANCE

Quality control is achieved by using NATA registered laboratories using American Society for Testing and Materials (ASTM) standard methods supported by internal duplicates, the checking of high, abnormal or otherwise anomalous results against background and other chemical results for the sample concerned.

Quality assurance is achieved by confirming that field results, or anticipated results based upon comparison with field observations, are consistent with laboratory results. Also, that sampling methods are uniform, and decontamination is thorough. In addition, the laboratory undertakes additional duplicate analysis as part of their internal quality assurance program on the basis of one duplicate analysis for every 20 samples analysed.

Field observations are compared with laboratory results when they are not as expected. Confirmation, re-sampling and re-analysis of a sample are undertaken if the results are not consistent with field observations and/or measurements. In addition, field duplicate sample results have to be within the acceptable range of reproducibility. A discussion of the QAQC is presented in **Appendix G**.

## 10 SOIL INVESTIGATION CRITERIA

### 10.1 Health investigation levels (HILs)

Appropriate health-based investigation levels (HILs) will be applied to the site for current use as open space purposes and being close to residential premises. These HILs are taken from the ASC NEPM (2013) and are presented for reference in **Table 4**. The applicable HILs for this investigation will include the following:

- Residential A – HIL A - Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry), also includes childcare centres, preschools and primary schools.
- Recreational C - HIL C – Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths.

**Table 4: Health investigation levels for soil contaminants**

Analyte	Health-based investigation levels (mg/kg) <sup>1</sup>	
	Residential A	Recreational C
Arsenic <sup>2</sup>	100	300
Cadmium	20	90
Chromium (VI)	100	300
Copper	6,000	17,000
Lead <sup>3</sup>	300	600
Mercury (inorganic)	40	80
Nickel	400	1,200
Zinc	7,400	30,000
Carcinogenic PAHs (as BaP TEQ) <sup>4</sup>	3	3
Total PAHs <sup>5</sup>	300	300

**Notes:**

1. HIL A - Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry), also includes childcare centres, preschools and primary schools.
2. HIL C – Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths.
3. Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability may be important and should be considered where appropriate (refer Schedule B7).
4. Lead: HIL is based on blood lead models (IEUBK for HILs A, B and C and adult lead model for HIL D where 50% oral bioavailability has been considered. Site-specific bioavailability may be important and should be considered where appropriate.
5. Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)P) adopted by CCME 2008 (refer Schedule B7). The B(a)P TEQ is calculated by multiplying the concentration of each carcinogenic PAH in the sample by its B(a)P TEF, given below, and summing these products.
6. Total PAHs: HIL is based on the sum of the 16 PAHs most commonly reported for contaminated sites (WHO 1998).

PAH species	TEF	PAH species	TEF
Benzo(a)anthracene	0.1	Benzo(g,h,i)perylene	0.01
Benzo(a)pyrene	1	Chrysene	0.01
Benzo(b+j)fluoranthene	0.1	Dibenz(a,h)anthracene	1
Benzo(k)fluoranthene	0.1	Indeno(1,2,3-c,d)pyrene	0.1

## 10.2 Health screening levels

Health Screening Levels (HSLs) for soils for validation have been adopted from *Table 1A(3)* of ASC NEPM (2013) – *Schedule B1: Investigation Levels for Soil and Groundwater*. The HSLs for volatile organic compound (VOC) contamination are based on vapour intrusion risk associated with soil petroleum hydrocarbon contamination.

HSLs are for assessing human health risk associated with inhalation, and depend on specific soil properties and depths, types of land use and characteristics of buildings for each land



use scenario. The material type adopted was clay, which represents the most conservative soil texture for application of the HSLs. Refer to a summary of Tier 1 HSLs in **Table 5**.

**Table 5: Health screening levels**

Analyte	Soil type	HSL-A threshold concentration (mg/kg)	HSL-C threshold concentration (mg/kg)
		0 m to <1 m	0 m to <1 m
<b>F1 (C<sub>6</sub>-C<sub>10</sub> – BTEX)</b>	Clay	50	NL
<b>F2 (&gt;C<sub>10</sub>-C<sub>16</sub>) – Naphthalene</b>	Clay	280	NL
<b>Benzene</b>	Clay	0.7	NL
<b>Toluene</b>	Clay	480	NL
<b>Ethylbenzene</b>	Clay	NL	NL
<b>Xylenes</b>	Clay	110	NL
<b>Naphthalene</b>	Clay	5	NL

**Notes:**

mg/kg Milligrams per kilogram

NL No applicable risk-based limit applies

### 10.3 Health-based Screening Levels (HSLs) - asbestos

Health screening levels for asbestos in soil were adopted from the ASC NEPM (2013) and are outlined in **Table 6**.

**Table 6: Health screening levels for asbestos contamination in soil**

Form of asbestos	HSL (w/w)	
	HSL A	HSL C
Bonded ACM <sup>1</sup>	0.01% w/w	0.02% w/w
FA <sup>2</sup> and AF <sup>2</sup> (friable asbestos)	0.001% w/w	
All forms of asbestos	No visible asbestos for surface soil	

**Notes:**

1. ACM – Bonded asbestos containing material;

2. FA – Fibrous asbestos; AF – Asbestos fines

### 10.4 Ecological investigation levels (EILs) for soil

The ecological investigation levels (EILs) assigned by ASC NEPM (2013) – *Schedule B5a: Guideline on Ecological Risk Assessment* are adopted for this assessment. This guideline presents the methodology for deriving terrestrial EILs using both fresh and aged (i.e. >2 years old) contamination for soil with the following land use types:

- Areas of ecological significance.



- Urban residential/ public open space.
- Commercial / industrial.

The methodology has been developed to protect soil processes, soil biota (flora and fauna) and terrestrial invertebrates and vertebrates. The proposed land use at the site is for residential / open space land use, as such the adopted EILs for this validation will be protective of this scenario

The ACL concentrations were ascertained for representative locations based on site-specific results for either pH alone, or pH and cation exchange capacity (CEC) in accordance with procedures in ASC NEPM (2013) – *Schedule 5c: - EILs for As Cr Cu DDT Pb Naphthalene Ni Zn*. Refer to a summary of site-specific EILs in **Table 7**.

**Table 7: Ecological investigation level thresholds**

Analyte	EIL for Urban residential and public open space (mg/kg)
Naphthalene	170
Arsenic	100
Chromium (III)	198
DDT	180
Copper	210
Lead	1,200
Nickel	175
Zinc	775

### 10.5 Ecological screening levels (ESLs)

For petroleum hydrocarbons, ESLs have been derived in ASC NEPM (2013) based upon fraction ranges of hydrocarbons, BTEXN component and benzo(a)pyrene (BaP) together with soil texture classes. These ESLs are of low reliability except for the volatile and semi-volatile hydrocarbon fractions which are of moderate reliability. Nonetheless the ESLs will be adopted for the investigation to be protective of soils in an urban residential and public open space land use scenario.

The adopted ESLs are designed to be protective of soil fauna, soil processes plants. The ASC NEPM (2013) states that these factors only apply within the rhizome (i.e. zone in the top two metres of soil) and as such ESL criteria need not be applied to chemical results below this depth. Criteria are summarised below in **Table 8**.

**Table 8: Ecological screening levels for soil contaminants**

Analyte	Soil Texture	Management Limits	ESL (mg/kg dry Soil)
			Urban residential and public open space
<b>F1 (C<sub>6</sub>- C<sub>10</sub>)</b>	Coarse	700	180 *
	Fine	800	
<b>F2 (&gt;C<sub>10</sub>-C<sub>16</sub>)</b>	Coarse	1,000	120 *
	Fine	1,000	
<b>Benzene</b>	Coarse	----	50
	Fine	----	65
<b>Toluene</b>	Coarse	----	85
	Fine	----	105
<b>Ethyl-benzene</b>	Coarse	----	70
	Fine	----	125
<b>Xylenes</b>	Coarse	----	105
	Fine	----	45
<b>Benzo(a)pyrene</b>	Coarse	----	0.7
	Fine	----	0.7

## 11 RESULTS

### 11.1 Intrusive soil investigation

The sample locations assessed are illustrated on **Figure 2** with test pit logs provided in **Appendix F**.

The field conditions can be described as:

- Ground surface to 0.5 m – fill material at locations TP1 to TP8 consisting of firm brown clay and very minor trace inclusions of glass, brick or tile fragment up to 0.5 m in depth in the lower-lying western portion of the site at location TP1 and gradually shallower towards the eastern side with a thickness of approximately 0.15 m at location TP8.
- Underlying natural soil is described as mottled red/orange/ brown and pale grey clay overlaying brown and dark grey shale cobbles and boulders.

Fill material consistent with the above description was not identified at locations TP9 and TP10 as it did not include anthropogenic material. However, the surface soil at TP9 and TP10 included a minor percentage of weathered shale, which should not be anticipated at



shallow depths. It is presumed this material is present due to preparatory earthworks as part of the development of the broader area when cut and fill would likely have occurred.

Groundwater was not encountered in any of the test pit excavation. Therefore, the depth to groundwater exceeds 1.8 m deep, which is the depth of the deepest test pit.

## 11.2 Aesthetic considerations

There is domestic refuse present at the site, refer **Section 7.1**, including empty food cans and plastic pipes and minor building rubble including concrete pieces and minor brick and tile fragments were noted along the western boundary wall.

The anthropogenic material at locations TP1 to TP8 includes fragments of glass, brick and tile at up to 0.5 m deep in the lower-lying western portion of the site at location TP1 and gradually shallower towards the eastern side with a thickness of approximately 0.15 m at location TP8. This anthropogenic would not be suitable from an aesthetic perspective for residential land use.

## 11.3 Analytical results

A summary of laboratory results for chemical analysis against adopted site criteria is presented in **Appendix H** and laboratory certificates of analysis is provided in **Appendix I**.

### 11.3.1 Chemical analysis

The reported concentrations of TRH, BTEX, PAH and Heavy metals were below the laboratory's limit of reporting (LOR) and / or the applicable health and ecologically based criteria for both residential (HIL A) and recreational (HIL C) land uses.

### 11.3.2 Asbestos analysis

Asbestos was not identified on the site's surface nor within fill material. No free asbestos fibres or friable asbestos materials were observed or identified during laboratory analysis. Furthermore, asbestos was not detected as part of the asbestos quantification that was conducted as part of the assessment.

## 12 CONCEPTUAL SITE MODEL

### 12.1 Introduction

A key component of the investigation/ risk assessment process is the development of a Conceptual Site Model (CSM) as this drives the risk management and remediation process. This identifies potential sources of contamination, potential migration pathways along which identified contaminants could migrate and potential receptors which may become exposed.

The CSM considers all plausible pollutant linkages associated with the identified contamination. By evaluating these linkages proposed controls can be outlined and recommendations developed for appropriate remediation or management.



## 12.2 Sources of contamination

Based on the findings of the desktop search, site inspection and limited intrusive investigation, the primary source of contamination is considered to be:

- Refuse and debris (consisting of empty food cans, plastic pipes and trace amounts of domestic building rubble) near the western site boundary.
- Shallow fill material up to 0.5 m deep.

## 12.3 Contaminants of potential concern

Although COPC were identified as part of the desktop review and site history, the reported concentrations of COPC are either below the laboratory's LOR and or investigation criteria.

## 12.4 Pathways

The potential pathways by which contamination present at the site could reach potential receptors are considered to be:

- Direct contact (dermal);
- Ingestion;
- Inhalation;
- Plant uptake.

## 12.5 Receptors

Identified potential sensitive receptors are considered to be:

- Current and future site users;
- Adjacent site users;
- Future construction and maintenance workers at the site.
- Site and surrounding flora, fauna and soil processes

## 12.6 Source to receptor linkages

Based upon the results and findings of this assessment, a source-pathway-receptor risk-linkage analysis is presented in **Table 9**.



Table 9: Source pathway receptor analysis

Potential Source	CoPC	Pathway	Receptor	Risk	Associated Data Gaps / Recommendations
Unverified fill	Heavy metals, BTEX, TRH and PAHs	Direct contact; Ingestion and Inhalation	Human - Current and future site users	LOW	The trace anthropogenic material observed in shallow fill at locations TP1 to TP8 is not suitable from an aesthetic perspective and will be removed as part of the proposed development.  The fill material identified in shallow soils in these locations was not found to be impacted by and any of the CoPCs identified for the site.
			Ecological – Site fauna		
			Human - Adjacent site users	LOW	
		Plant uptake	Ecological – Site flora	LOW	
	Asbestos	Inhalation of fibres	Human – Current and future site users	LOW	

**Notes:**

**HIGH RISK** - desktop review and site inspection have identified potentially contaminating site activities and intrusive works must be carried out to remediate.  
**MODERATE RISK** - desktop review and site inspection cannot rule out the presence of potentially contaminating site activities without undertaking recommended intrusive works  
**LOW RISK** - desktop review and site inspection have not identified any potentially contaminating site activities.



## 13 CONCLUSIONS

Environmental Earth Sciences was requested by Liverpool City Council to undertake a soil contamination assessment of the site to evaluate its suitability for recreational land use in September 2021 and then residential land use in August 2023.

Based on the results of the soil contamination assessment completed on 18 October 2021 and subsequent site inspection on 23 August 2023, the following conclusions are made:

- The site is a vacant undeveloped parcel of land located in Casula that was initially part of a much larger property that was used for agricultural/ market garden purposes between the mid-1970s and the early 2000s. The broader property was developed for residential purposes from the early 2000s. The site has not been developed.
- During the site inspection in 2021, domestic rubbish including empty food cans and plastic pipes and minor building rubble including concrete pieces and minor brick and tile fragments were noted along the western boundary wall. This was still present in 2023. Evidence of gross contamination (including potential ACM) or staining was not evidenced at the site surface during either site visit.
- Scaffolding, skip bin and building equipment/ supplies identified in 2021 had since been removed.
- From an aesthetic perspective,
  - There is domestic refuse present on the ground's surface near the western wall consisting of empty food cans and plastic pipes and minor building rubble including concrete pieces and minor brick and tile fragments were noted along the western boundary wall.
  - Anthropogenic material at locations TP1 to TP8 includes fragments of glass, brick and tile at up to 0.5 m deep in the lower-lying western portion of the site at location TP1 and gradually shallower towards the eastern side with a thickness of approximately 0.15 m at location TP8. This material is classified as general solid waste in accordance with Environmental Earth Sciences (2021b).
- The reported concentrations of TRH, BTEX, PAH and heavy metals were below the laboratory's LOR and / or the applicable health and ecologically based criteria for both residential (HIL A) and recreational (HIL C) land uses.

Based upon findings from the desktop study, review of historical information, site observations (September 2021, August and September 2023), intrusive investigation and laboratory results, Environmental Earth Sciences considers that the site presents a LOW risk to human health and the environment in both a recreational and residential land use scenario noting that surficial rubbish and some anthropogenic fill material is present.

The anthropogenic fill material is non-hazardous inert foreign material and is considered of low concern from a chemical perspective. Therefore, the site is considered suitable for recreational and residential land use on the basis that the anthropogenic fill material does not preclude the proposed land use.



General recommendations appropriate for any proposed earthworks are provided in **Section 14**.

## 14 RECOMMENDATIONS

In view of the findings of the assessment and the presence of non-hazardous inert foreign material of low concern, it is recommended that an unexpected finds protocol (UFP) be adopted to manage potential contamination and or hazardous materials which may be encountered. An example UFP is provided in **Appendix J**.

## 15 LIMITATIONS

This report has been prepared by Environmental Earth Sciences NSW ACN 109 404 006 in response to and subject to the following limitations:

1. The specific instructions received from Liverpool City Council;
2. The specific scope of works set out in proposal PO121134\_V1 and variation 121070VR01V01 issued by Environmental Earth Sciences NSW for and on behalf of Liverpool City Council, is included in **Section 4** of this report;
3. May not be relied upon by any third party not named in this report for any purpose except with the prior written consent of Environmental Earth Sciences NSW (which consent may or may not be given at the discretion of Environmental Earth Sciences NSW);
4. This report comprises the formal report, documentation sections, tables, figures and appendices as referred to in the index to this report and must not be released to any third party or copied in part without all the material included in this report for any reason;
5. The report only relates to the site referred to in the scope of works being located at 22 Box Road, Casula, NSW ("the site");
6. The report relates to the site as at the date of the report as conditions may change thereafter due to natural processes and/or site activities;
7. No warranty or guarantee is made in regard to any other use than as specified in the scope of works and only applies to the depth tested and reported in this report;
8. Fill, soil, groundwater and rock to the depth tested on the site may be fit for the use specified in this report. Unless it is expressly stated in this report, the fill, soil and/or rock may not be suitable for classification as clean fill, excavated natural material (ENM) or virgin excavated natural material (VENM) if deposited off site;
9. This report is not a geotechnical or planning report suitable for planning or zoning purposes; and



10. Our General Limitations set out at the back of the body of this report.

## 16 REFERENCES

- Bureau of Meteorology, Australian Government website (accessed 20 August 2021)  
<http://www.bom.gov.au/>
- Department of Environment, Climate Change and Water (NSW) 2010, "UPSS environmentally sensitive zone maps" accessed 06 August 2021,  
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- NSW EPA (2020) - *Contaminated Guidelines: Consultants reporting on contaminated land*.
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<https://apps.epa.nsw.gov.au/prclmapp/searchregister.aspx>



Standards Australia (1999) - *Guide to the investigation and sampling of sites with potentially contaminated soil, Part 2: Volatile substances (AS 4482.2)*, Standards Australia, Homebush, NSW

Standards Australia (2005) - *Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds (AS 4482.1)*, Standards Australia, Sydney, NSW

Water NSW Real time water data (<https://realtimedata.waternsw.com.au/water.stm>, accessed 27 September 2021)



## ENVIRONMENTAL EARTH SCIENCES GENERAL LIMITATIONS

### Scope of services

The work presented in this report is Environmental Earth Sciences response to the specific scope of works requested by, planned with and approved by the client. It cannot be relied on by any other third party for any purpose except with our prior written consent. Client may distribute this report to other parties and in doing so warrants that the report is suitable for the purpose it was intended for. However, any party wishing to rely on this report should contact us to determine the suitability of this report for their specific purpose.

### Data should not be separated from the report

A report is provided inclusive of all documentation sections, limitations, tables, figures and appendices and should not be provided or copied in part without all supporting documentation for any reason, because misinterpretation may occur.

### Subsurface conditions change

Understanding an environmental study will reduce exposure to the risk of the presence of contaminated soil and or groundwater. However, contaminants may be present in areas that were not investigated, or may migrate to other areas. Analysis cannot cover every type of contaminant that could possibly be present. When combined with field observations, field measurements and professional judgement, this approach increases the probability of identifying contaminated soil and or groundwater. Under no circumstances can it be considered that these findings represent the actual condition of the site at all points.

Environmental studies identify actual sub-surface conditions only at those points where samples are taken, when they are taken. Actual conditions between sampling locations differ from those inferred because no professional, no matter how qualified, and no sub-surface exploration program, no matter how comprehensive, can reveal what is hidden below the ground surface. The actual interface between materials may be far more gradual or abrupt than an assessment indicates. Actual conditions in areas not sampled may differ from that predicted. Nothing can be done to prevent the unanticipated. However, steps can be taken to help minimize the impact. For this reason, site owners should retain our services.

### Problems with interpretation by others

Advice and interpretation is provided on the basis that subsequent work will be undertaken by Environmental Earth Sciences NSW. This will identify variances, maintain consistency in how data is interpreted, conduct additional tests that may be necessary and recommend solutions to problems encountered on site. Other parties may misinterpret our work and we cannot be responsible for how the information in this report is used. If further data is collected or comes to light we reserve the right to alter their conclusions.

### Obtain regulatory approval

The investigation and remediation of contaminated sites is a field in which legislation and interpretation of legislation is changing rapidly. Our interpretation of the investigation findings should not be taken to be that of any other party. When approval from a statutory authority is required for a project, that approval should be directly sought by the client.

### Limit of liability

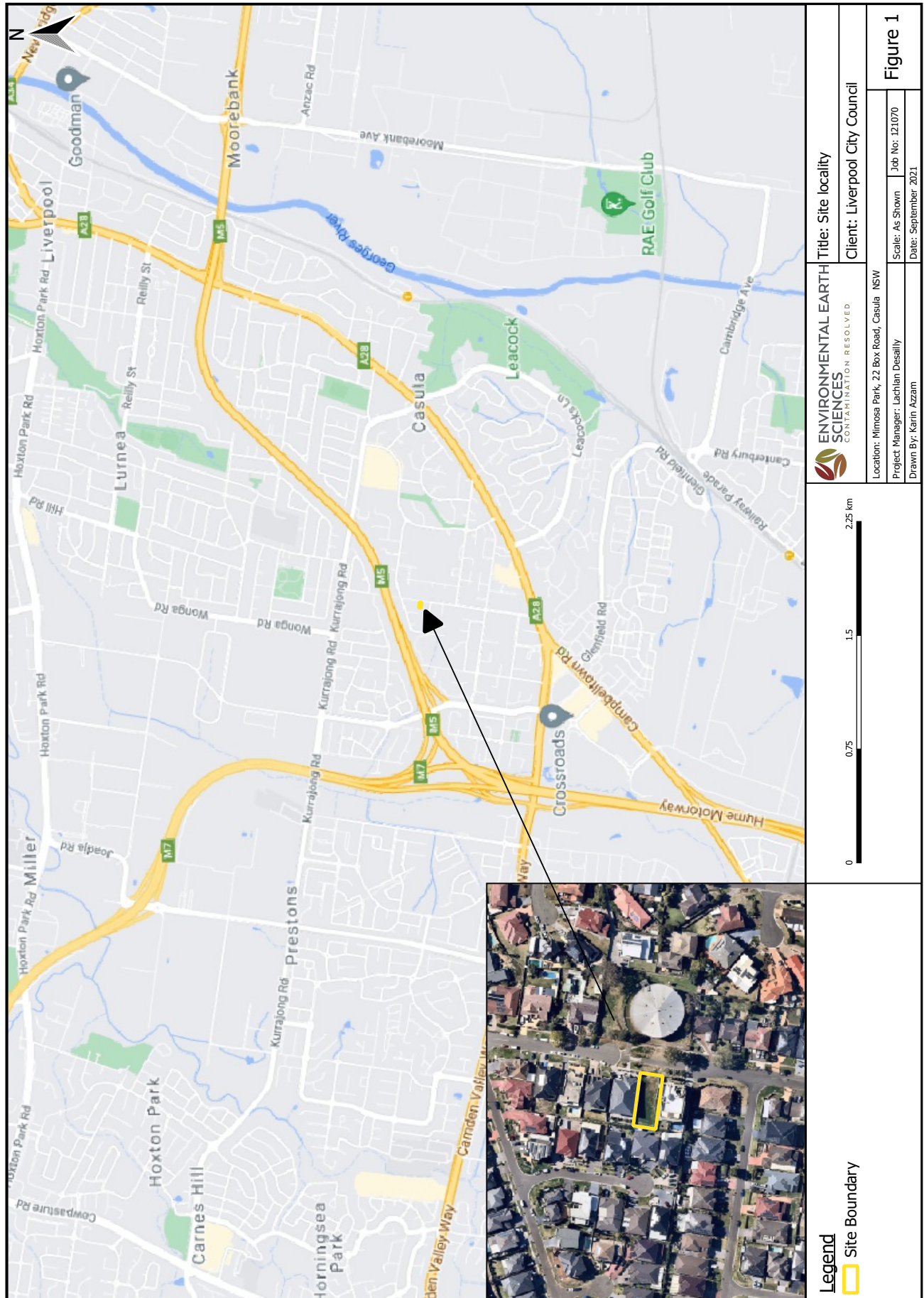
This study has been carried out to a particular scope of works at a specified site and should not be used for any other purpose. This report is provided on the condition that Environmental Earth Sciences NSW disclaims all liability to any person or entity other than the client in respect of anything done or omitted to be done and of the consequence of anything done or omitted to be done by any such person in reliance, whether in whole or in part, on the contents of this report. Furthermore, Environmental Earth Sciences NSW disclaims all liability in respect of anything done or omitted to be done and of the consequence of anything done or omitted to be done by the client, or any such person in reliance, whether in whole or any part of the contents of this report of all matters not stated in the brief outlined in Environmental Earth Sciences NSW's proposal number and according to Environmental Earth Sciences general terms and conditions and special terms and conditions for contaminated sites.

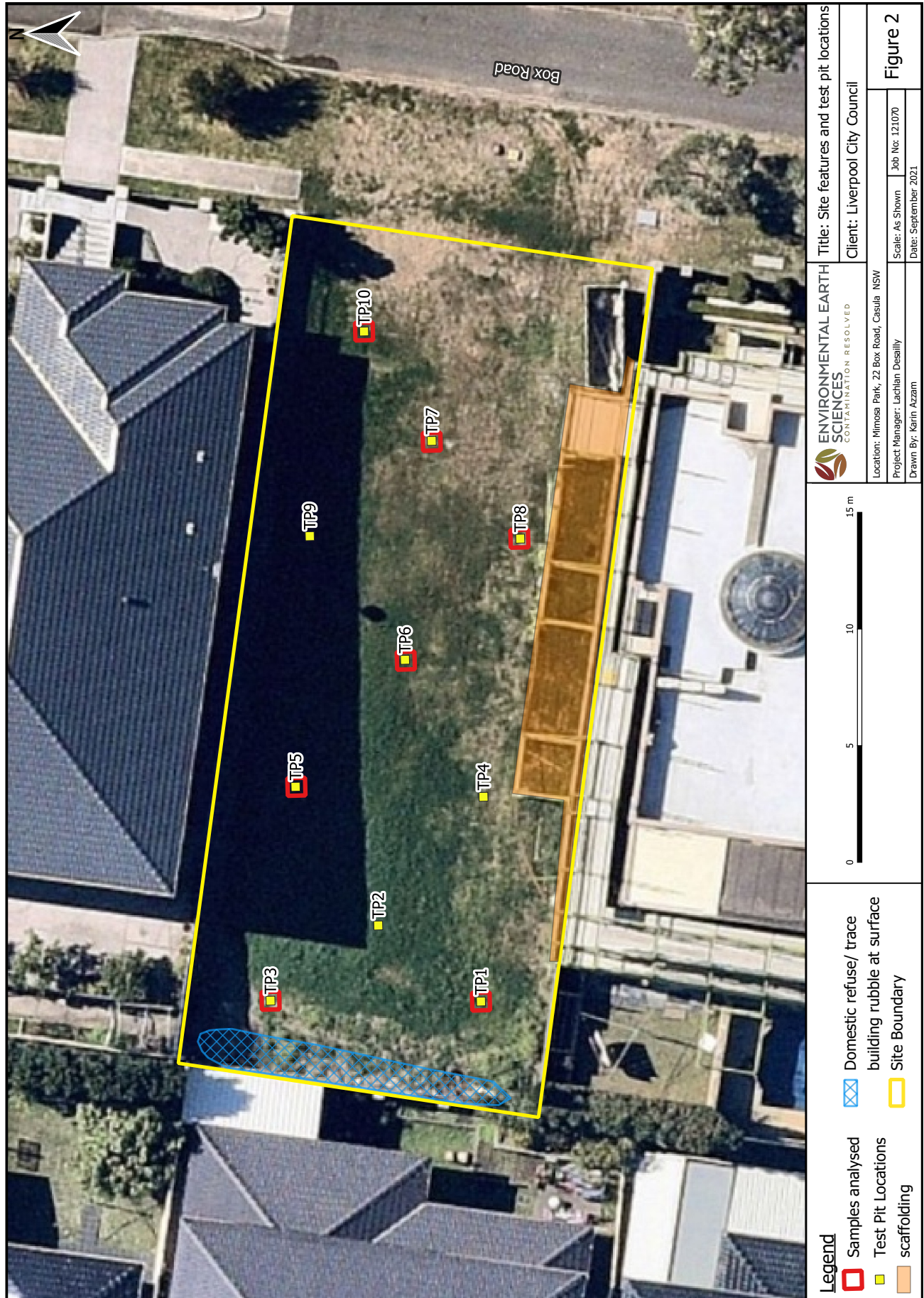
To the maximum extent permitted by law, we exclude all liability of whatever nature, whether in contract, tort or otherwise, for the acts, omissions or default, whether negligent or otherwise for any loss or damage whatsoever that may arise in any way in connection with the supply of services. Under circumstances where liability cannot be excluded, such liability is limited to the value of the purchased service.



## FIGURES

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## APPENDIX A: ENVIRONMENTAL SETTING MAPS

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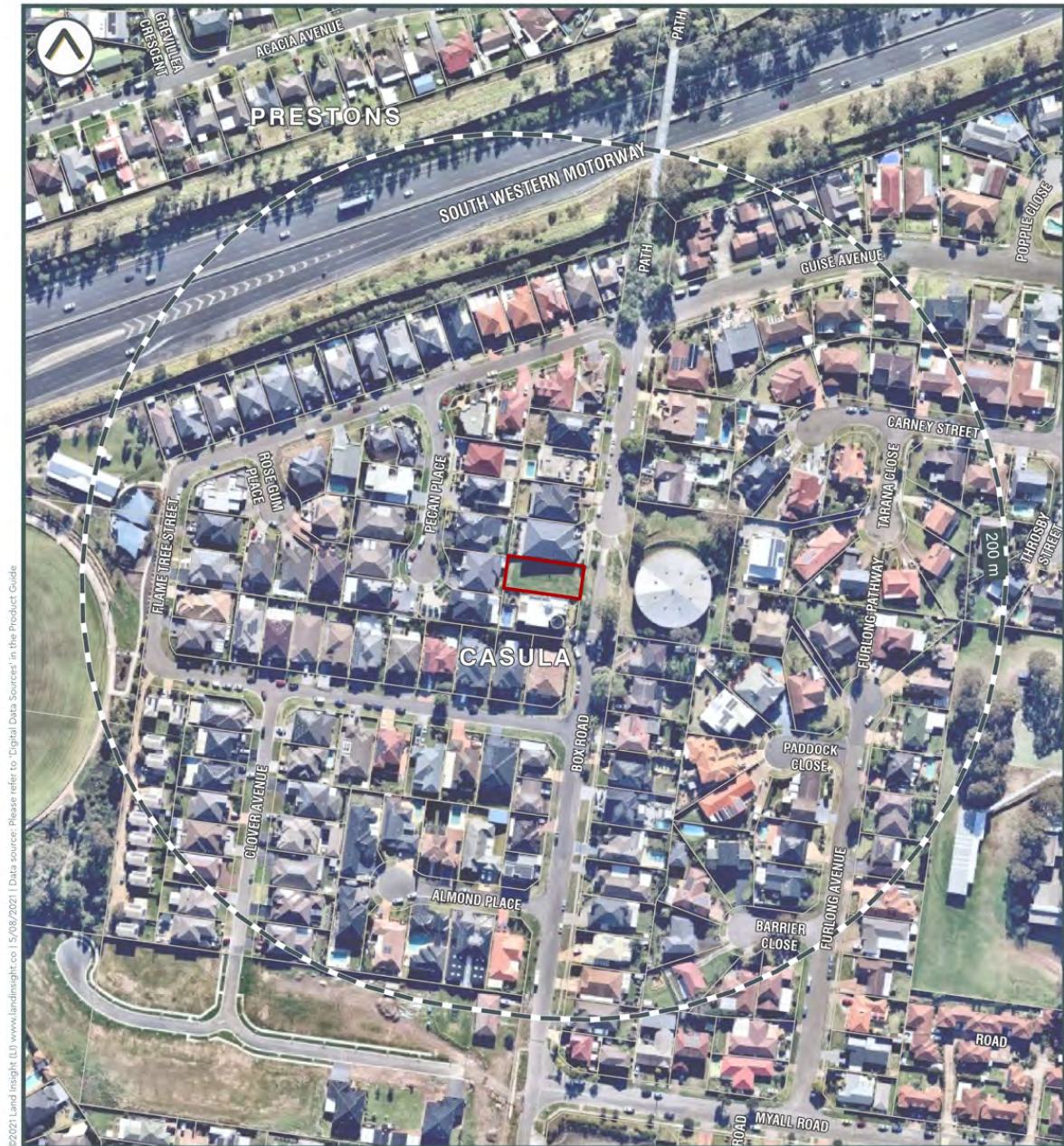
# Appendix A

## REPORT MAPS



## PROPERTY SETTING

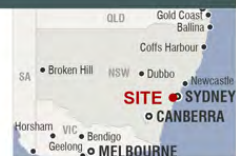
## MAP 1.1

**Subject Area and Sensitive Receptors**

 Subject area



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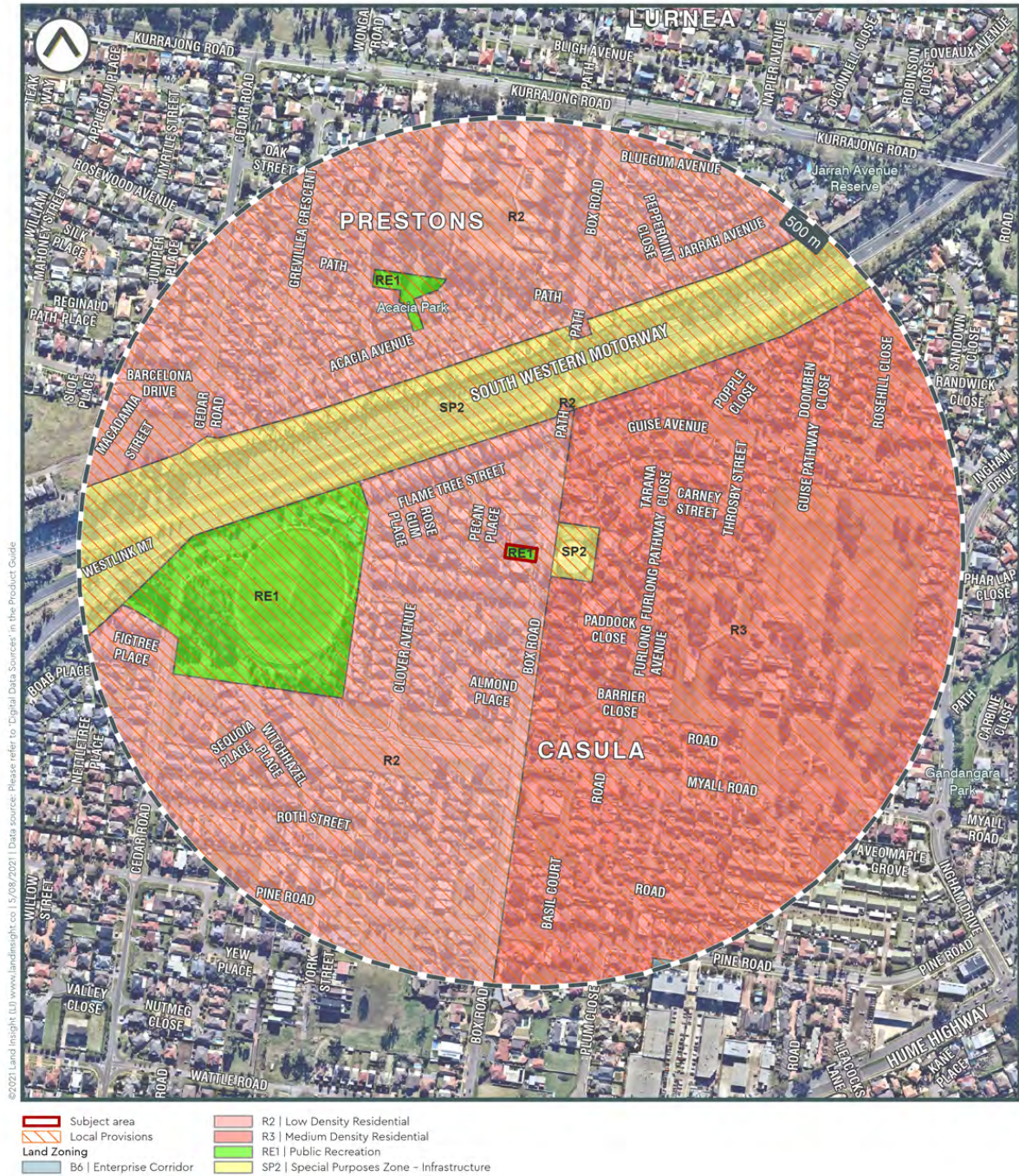




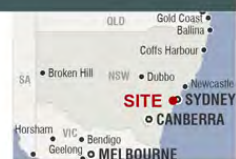
## PROPERTY SETTING

## MAP 1.2

## Planning Controls

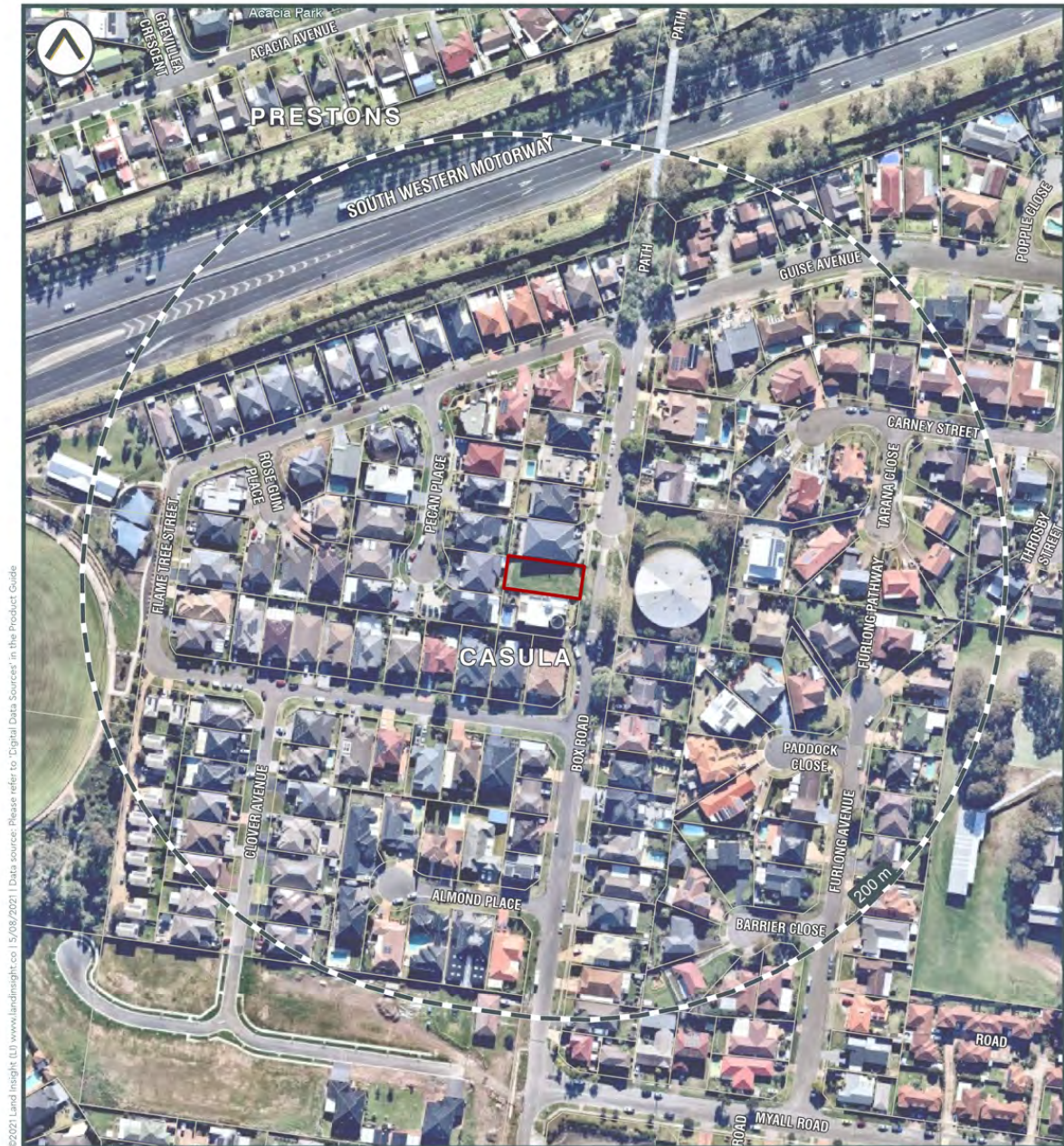


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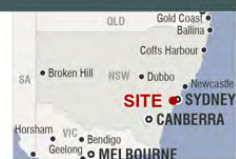
## PROPERTY SETTING

**Heritage****MAP 1.3**

- |              |                                  |                              |
|--------------|----------------------------------|------------------------------|
| Subject area | Heritage conservation Area (LEP) | National Heritage List (NHL) |
|              | State Heritage Register          | World Heritage Area (WHA)    |
|              | Commonwealth Heritage List (CHL) |                              |



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## PROPERTY SETTING

## MAP 1.4a

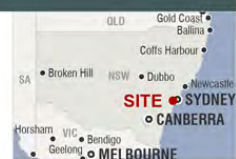
## Soil Landscape and Salinity



0 50 100 150 200 250m



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## PROPERTY SETTING

## MAP 1.4b

## Acid Sulfate Soils



0 50 100 150 200 250m



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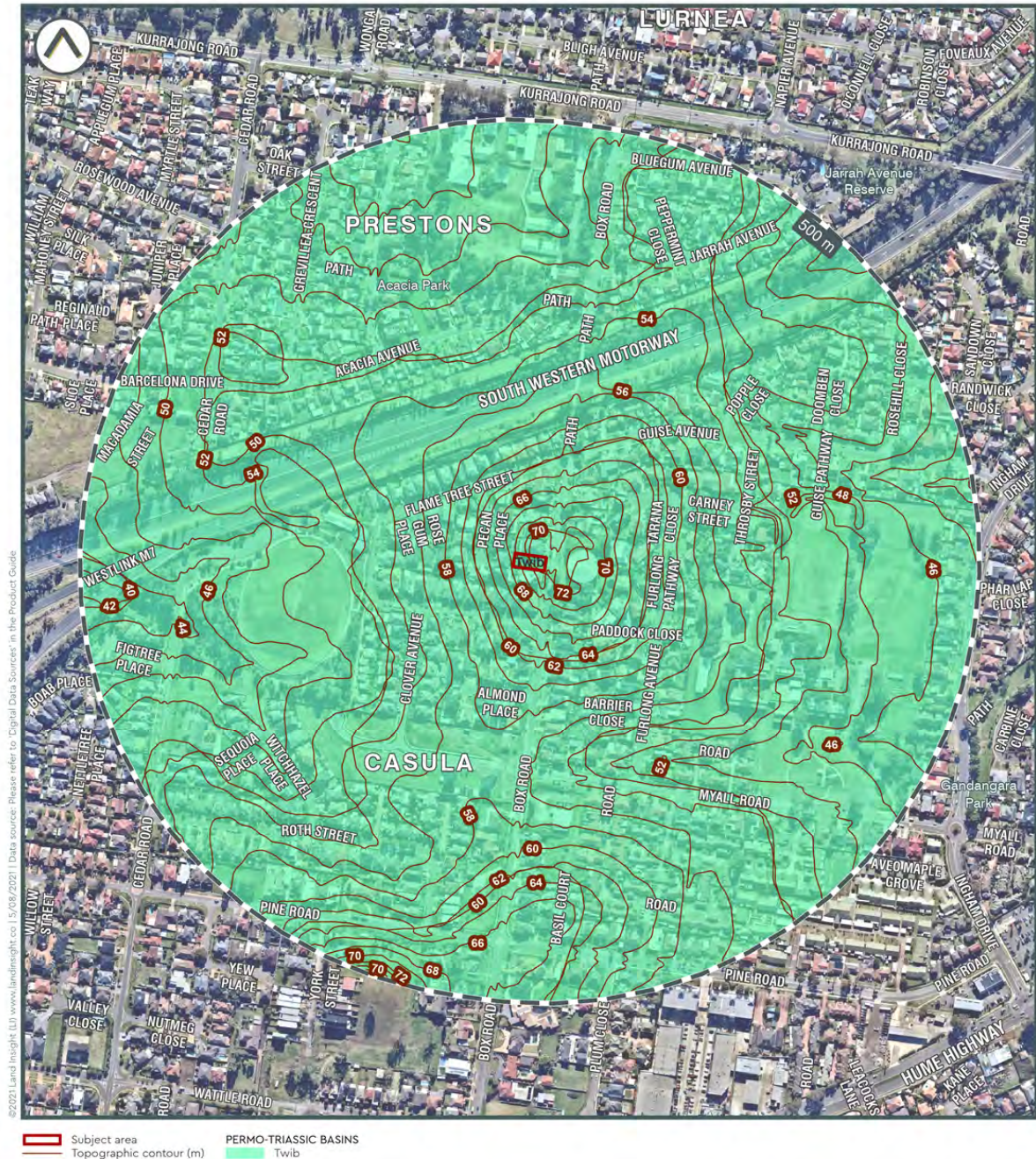




## PROPERTY SETTING

## MAP 1.5

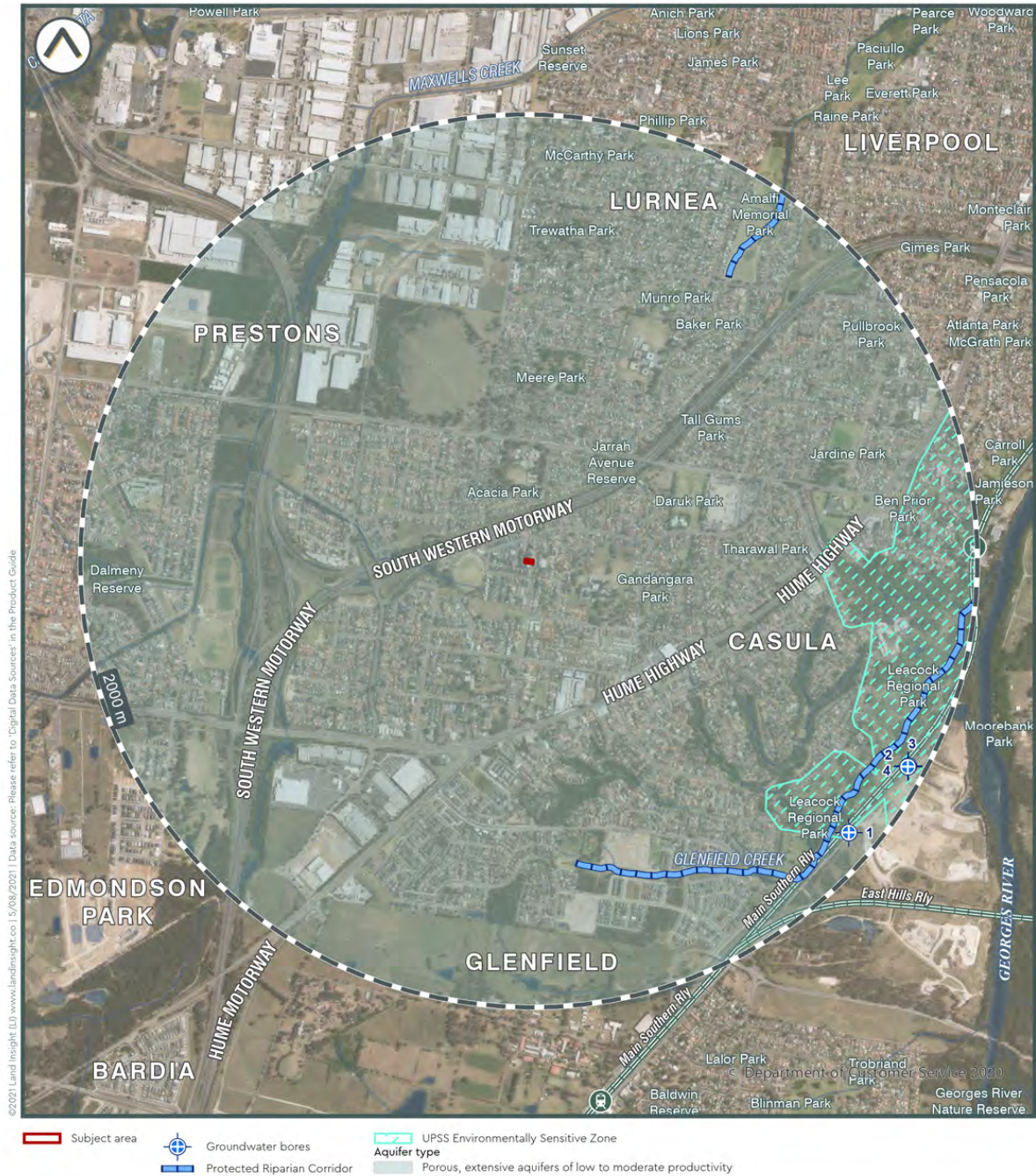
## Geology and Topography





## HYDROGEOLOGY

## MAP 2.1

**Hydrogeology and Groundwater Boreholes**



## HYDROGEOLOGY

## MAP 2.2

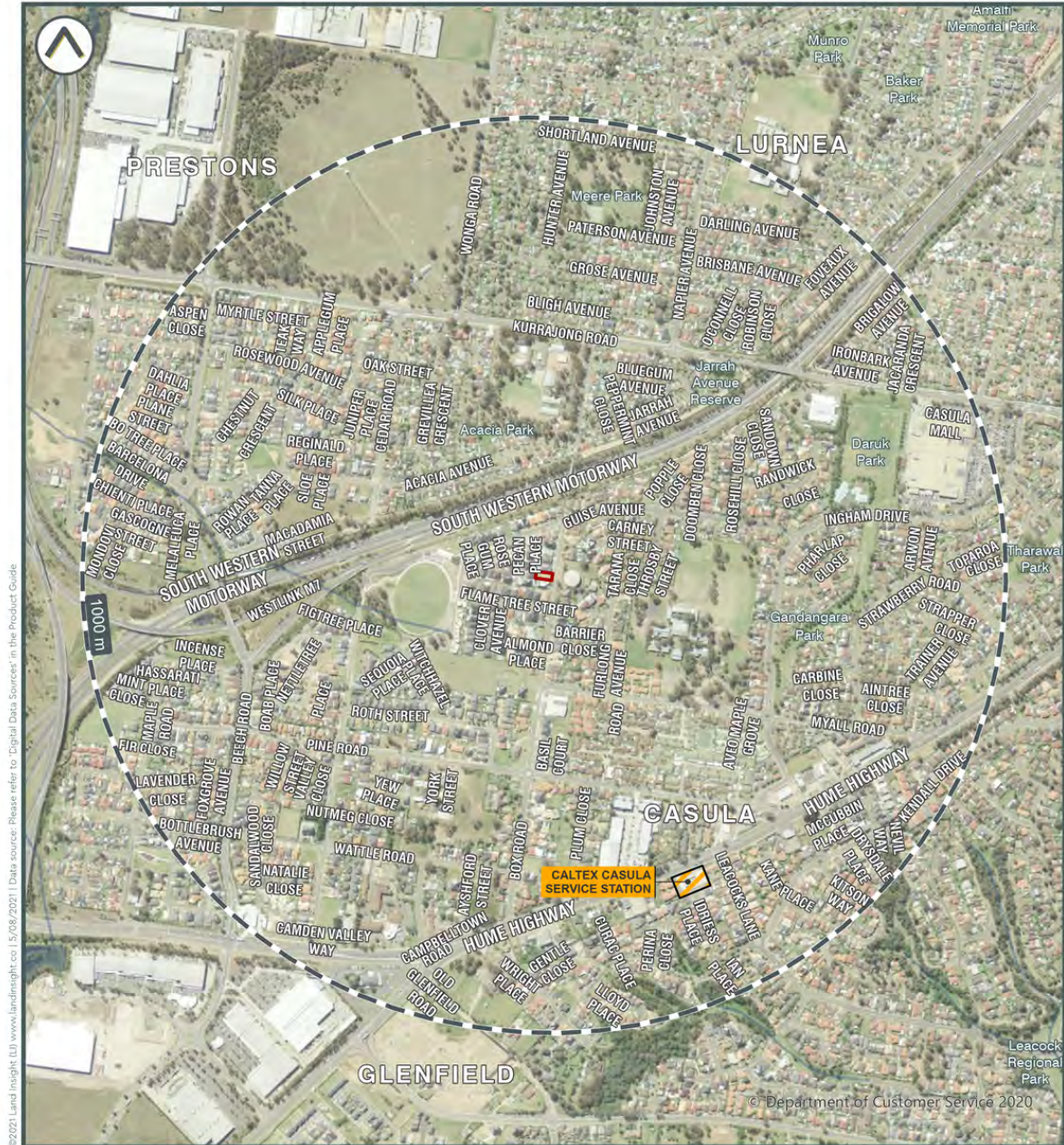
**Hydrogeology and Other Boreholes**



## ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

## MAP 3.1

## Contaminated Land Public Register

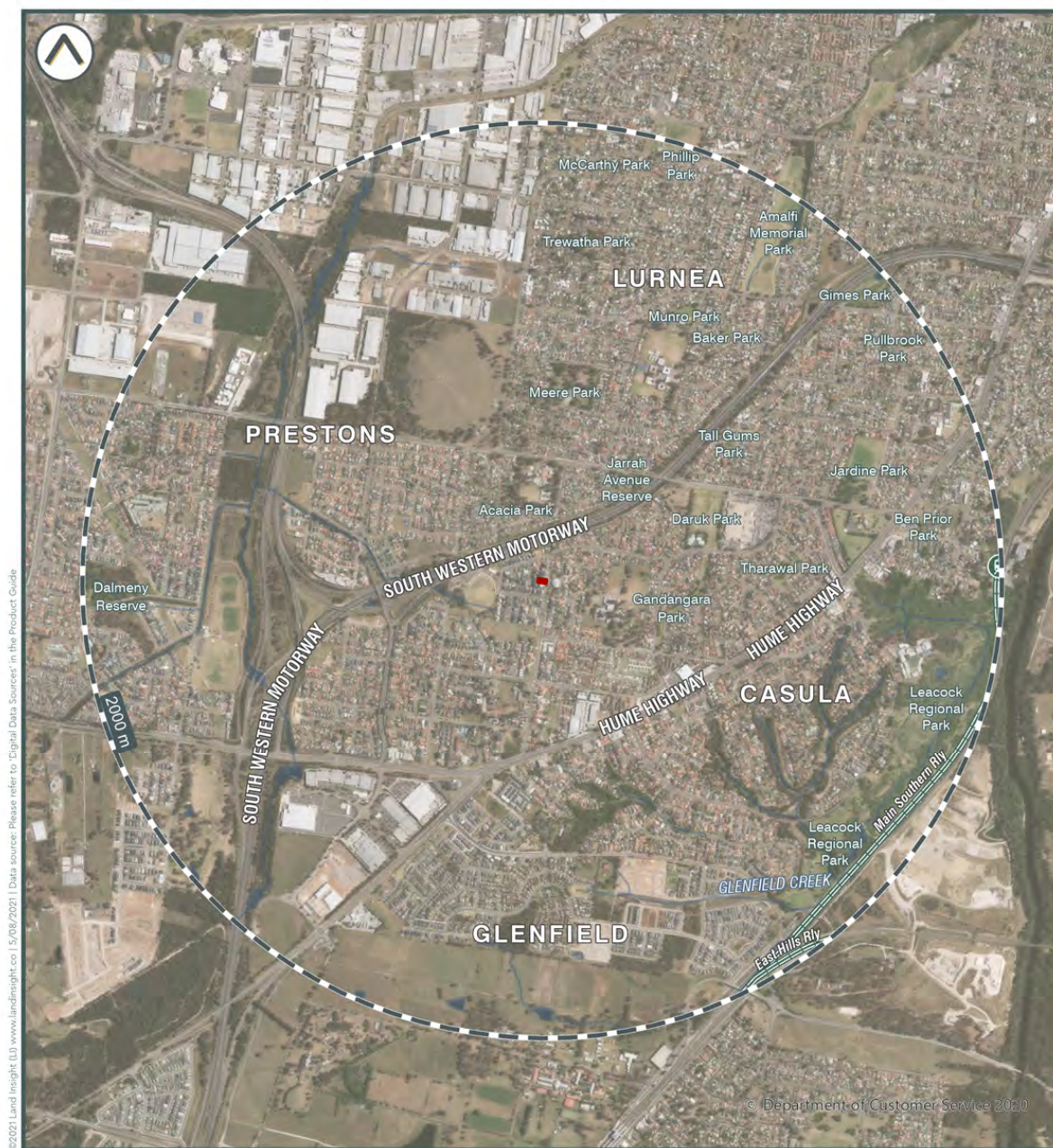




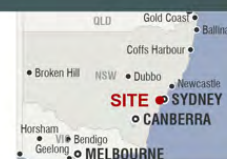
## ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

## MAP 3.2

## Sites Regulated by other Jurisdictional Body



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## ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

## MAP 3.3

## Licensing Under the POEO Act



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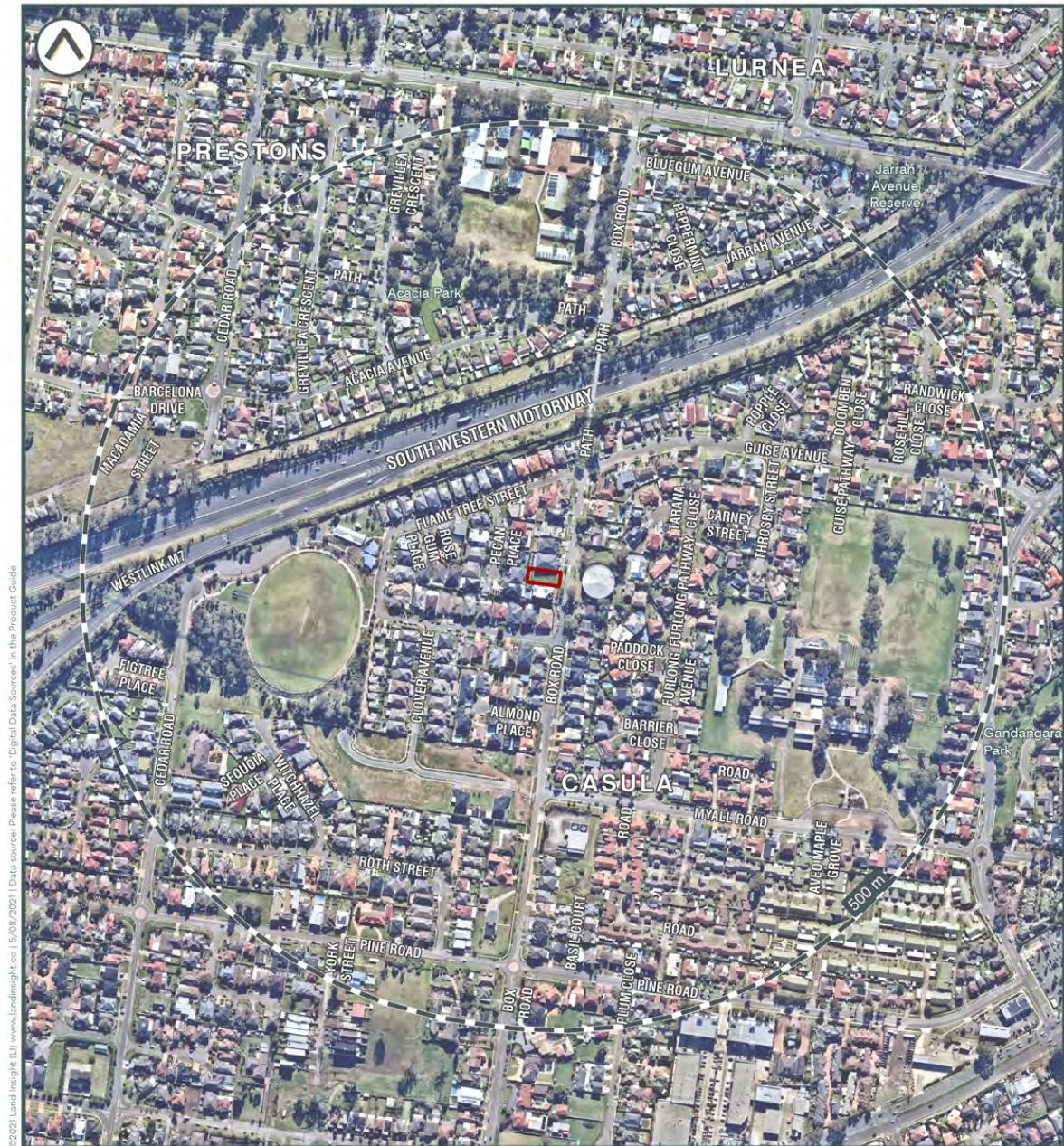




## POTENTIALLY CONTAMINATED AREAS

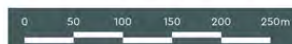
## MAP 4.1

## Potentially Contaminating Activities (PCAs)



-  Subject area
-  Liquid Fuel Depots
-  Operational Petrol Stations
-  Former Petrol Stations
-  Waste Management Facilities

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.



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## NATURAL HAZARDS

## Fire and Flood Hazards

## MAP 5.1



0 50 100 150 200 250m



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## APPENDIX B: SOIL LANDSCAPE

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bt	BLACKTOWN	Residual
----	-----------	----------



**Landscape**—gently undulating rises on Wianamatta Group shales. Local relief to 30 m, slopes usually >5%. Broad rounded crests and ridges with gently inclined slopes. Cleared Eucalypt woodland and tall open-forest (dry sclerophyll forest).

**Soils**—shallow to moderately deep (>100 cm) hardsetting mottled texture contrast soils, Red and Brown Podzolic Soils (Dr3.21, Dr3.31, Db2.11, Db2.21) on crests grading to Yellow Podzolic Soils (Dy2.11, Dy3.11) on lower slopes and in drainage lines.

**Limitations**—localised seasonal waterlogging, localised water erosion hazard, moderately reactive highly plastic subsoil, localised surface movement potential.

## LOCATION

Occurs extensively on the Cumberland Lowlands. Examples include Blacktown, Mount Druitt, Glossodia and Leppington.

Isolated examples are found at Bilpin on the Blue Mountains plateau surface and along the Silverdale Road south of Wallacia.

## LANDSCAPE

### Geology

Wianamatta Group—Ashfield Shale consisting of laminite and dark grey siltstone, Bringelly Shale which consists of shale with occasional calcareous claystone, laminite and infrequent coal, and Minchinbury Sandstone consisting of fine to medium-grained quartz lithic sandstone.

### Topography

Gently undulating rises on Wianamatta Shale with local relief 10–30 m and slopes generally >5% but occasionally up to 10%. Crests and ridges are broad (200–600 m) and rounded with convex upper slopes grading into concave lower slopes. Outcrops of shale do not occur naturally on the surface. They may occur, however, where soils have been removed.

### Vegetation

Almost completely cleared open-forest and open-woodland (dry sclerophyll forest). The original woodland and open-forest were dominated by *Eucalyptus tereticornis* (forest red gum), *E. crebra* (narrow-leaved ironbark), *E. moluccana* (grey box) and *E. maculata* (spotted gum) (Benson, 1981).

Further west near Penrith remnant stands of *E. punctata* (grey gum) occur. Between Liverpool and St Marys, the dominant species are *E. globoides* (white stringybark) and *E. fibrosa* (broad-leaved ironbark), with *E. longifolia* (woollybutt) as an understorey species. Individual trees or small stands of *E. sideroxylon* (mugga ironbark) are occasionally found on crests.

### Landuse

The dominant landuses are intensive residential (Fairfield, Blacktown and Mt Druitt), horticulture and animal husbandry (Vineyard, Scheyville and Leppington) and light and heavy industry (Yennora and Moorebank).

### Existing Erosion

No appreciable erosion occurs on this unit. Minor sheet and gully erosion may be found where surface vegetation is not maintained.

### Associated Soil Landscapes

South Creek (**sc**) soil landscape occurs along drainage depressions. Picton (**pn**) soil landscape occurs on steeper south and southeast facing slopes. Small areas of Luddenham (**lu**) soil landscape may also occur.

## SOILS

### Dominant Soil Materials

#### **bt1—Friable brownish black loam.**

This is a friable brownish black loam to clay loam with moderately pedal subangular blocky structure and rough-faced porous ped fabric. This material occurs as topsoil (A horizon).

Peds are well defined subangular blocky and range in size from 2–20 mm. Surface condition is friable. Colour is brownish black (10YR 2/2) but can range from dark reddish brown (5YR 3/2) to dark yellowish brown (10YR 3/4). The pH varies from moderately acid (pH 5.5) to neutral (pH 7.0). Rounded iron indurated fine gravel-sized shale fragments and charcoal fragments are sometimes present. Roots are common.

#### **bt2—Hardsetting brown clay loam.**

This is a brown clay loam to silty clay loam which is hardsetting on exposure or when completely dried out. It has apedal massive to weakly pedal structure and slowly porous earthy fabric. It occurs as an A2 horizon.

Peds when present are weakly developed, subangular blocky and are rough faced and porous. They range in size between 20–50 mm. This material is water repellent when extremely dry.

Colour is dark brown (7.5YR 4/3) but can range from dark reddish brown (2.5YR 3/3) to dark brown (10YR 3/3). The pH varies from moderately acid (pH 5.0) to slightly acid (pH 6.5). Platy, iron indurated gravel-sized shale fragments are common. Charcoal fragments and roots are rarely present.

**bt3—Strongly pedal, mottled brown light clay.**

This is a brown light to medium clay with strongly pedal polyhedral or sub-angular to blocky structure and smooth-faced dense ped fabric. This material usually occurs as subsoil (B horizon).

Texture often increases with depth. Peds range in size from 5–20 mm. Colour is brown (7.5YR 4/6) but may range from reddish brown (2.5YR 4/6) to brown (10YR 4/6). Frequent red, yellow or grey mottles occur often becoming more numerous with depth. The pH varies from strongly acid (pH 4.5) to slightly acid (pH 6.5). Fine to coarse gravel-sized shale fragments are common and often occur in stratified bands. Both roots and charcoal fragments are rare.

**bt4—Light grey plastic mottled clay.**

This is a plastic light grey silty clay to heavy clay with moderately pedal polyhedral to subangular blocky structure and smoothfaced dense ped fabric. This material usually occurs as deep subsoil above shale bedrock (B3 or C horizon).

Peds range in size from 2–20 mm. Colour is usually light grey (10YR 7/1) or, less commonly, greyish yellow (2.5YR 6/2). Red, yellow or grey mottles are common. The pH varies from strongly acid (pH 4.0) to moderately acid (pH 5.5). Strongly weathered ironstone concretions and rock fragments are common. Gravel-sized shale fragments and roots are occasionally present. Charcoal fragments are rare.

**Occurrence and Relationships**

**Crests.** On crests and ridges up to 30 cm of friable brownish black loam (**bt1**) overlies 10–20 cm of hardsetting brown clay loam (**bt2**) and up to 90 cm of strongly pedal, brown mottled light clay (**bt3**) [red podzolic soils (Dr3.21, 3.11) and brown podzolic soils (Db2.11)]. **bt1** is occasionally absent. Boundaries between the soil materials are usually clear. Total soil depth is <100 cm.

**Upper slopes and Midslopes.** Up to 30 cm of **bt1** overlies 10–20 cm of **bt2** and 20–50 cm of **bt5**. This in turn overlies up to 100 cm of a light grey plastic mottled clay (**bt4**) [Red Podzolic Soils (Dr3.21), Brown Podzolic Soils (Db2.21)]. Occasionally **bt1** is absent. The boundaries between the soil materials are usually clear. Total soil depth is <200 cm.

**Lower sideslopes.** Up to 30 cm of **bt1** overlies 10–30 cm of **bt2** and 40–100 cm of **bt3**. Below **bt3** there is usually >100 cm of **bt4** [Yellow Podzolic Soils (Dy2.11, Dy3.11)]. The boundaries between the soil materials are clear. Total soil depth is >200 cm.

**LIMITATIONS TO DEVELOPMENT**

**Soil Limitations**

- bt1** Strongly acid
- bt2** Hardsetting  
Low fertility  
Strongly acid  
High aluminium toxicity
- bt3** High shrink-swell (localised)  
Low wet strength  
Low permeability

- Low available water capacity
- Salinity (localised)
- Sodicity (localised)
- Very low fertility
- Very strongly acid
- Very high aluminium toxicity
- bt4** High shrink-swell (localised)
- Low wet strength
- Stoniness
- Low available water capacity
- Low permeability
- Salinity (localised)
- Sodicity (localised)
- Low fertility
- Strongly acid
- Very high aluminium toxicity
- High erodibility (localised)

#### **Fertility**

General fertility is low to moderate. Soil materials have low to moderate available water capacity, low CEC values, hardsetting surfaces (**bt2**), very low phosphorus and low to very low nitrogen levels. The subsoils (**bt3**, **bt4**) may be locally sodic with low permeability. When **bt1** is present its higher organic matter content and moderate nitrogen levels result in higher general fertility.

#### **Erodibility**

Blacktown soil materials have moderate erodibility. The topsoils (**bt1**, **bt2**) are often hardsetting and they have high fine sand and silt content, but they also have high to moderate organic matter content. The subsoils (**bt3**, **bt4**) are very low in organic matter. Where they are also highly dispersible and occasionally sodic the erodibility is high.

#### **Erosion Hazard**

The erosion hazard for non-concentrated flows is slight to moderate but ranges from low to very high. Calculated soil loss during the first twelve months of urban development for topsoil and exposed subsoil tends to be low (7–11 t/ha). Soil erosion hazard for concentrated flows is moderate to high.

#### **Surface Movement Potential**

The deep clay soils are moderately reactive. These are generally found on side-slopes and footslopes. Shallower soils on forests are slightly reactive.

#### **Landscape Limitations**

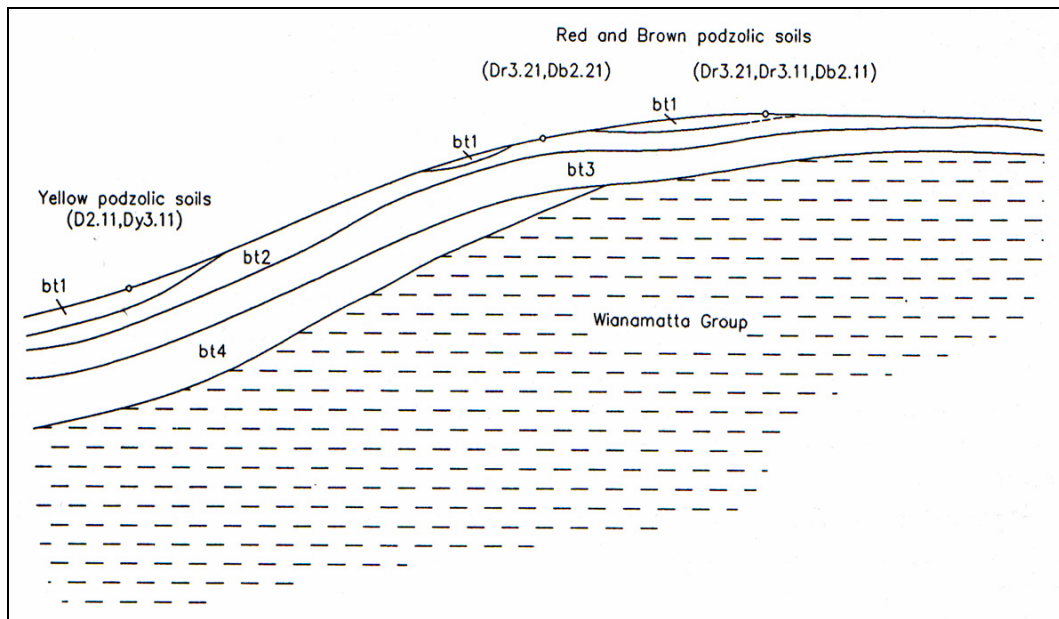
Seasonal waterlogging (localised), water erosion hazard (localised), surface movement potential (localised).

#### **Urban Capability**

High capability for urban development with appropriate foundation design.

#### **Rural Capability**

Small portions of this soil landscape which have not been urbanised are capable of sustaining regular cultivation and grazing.

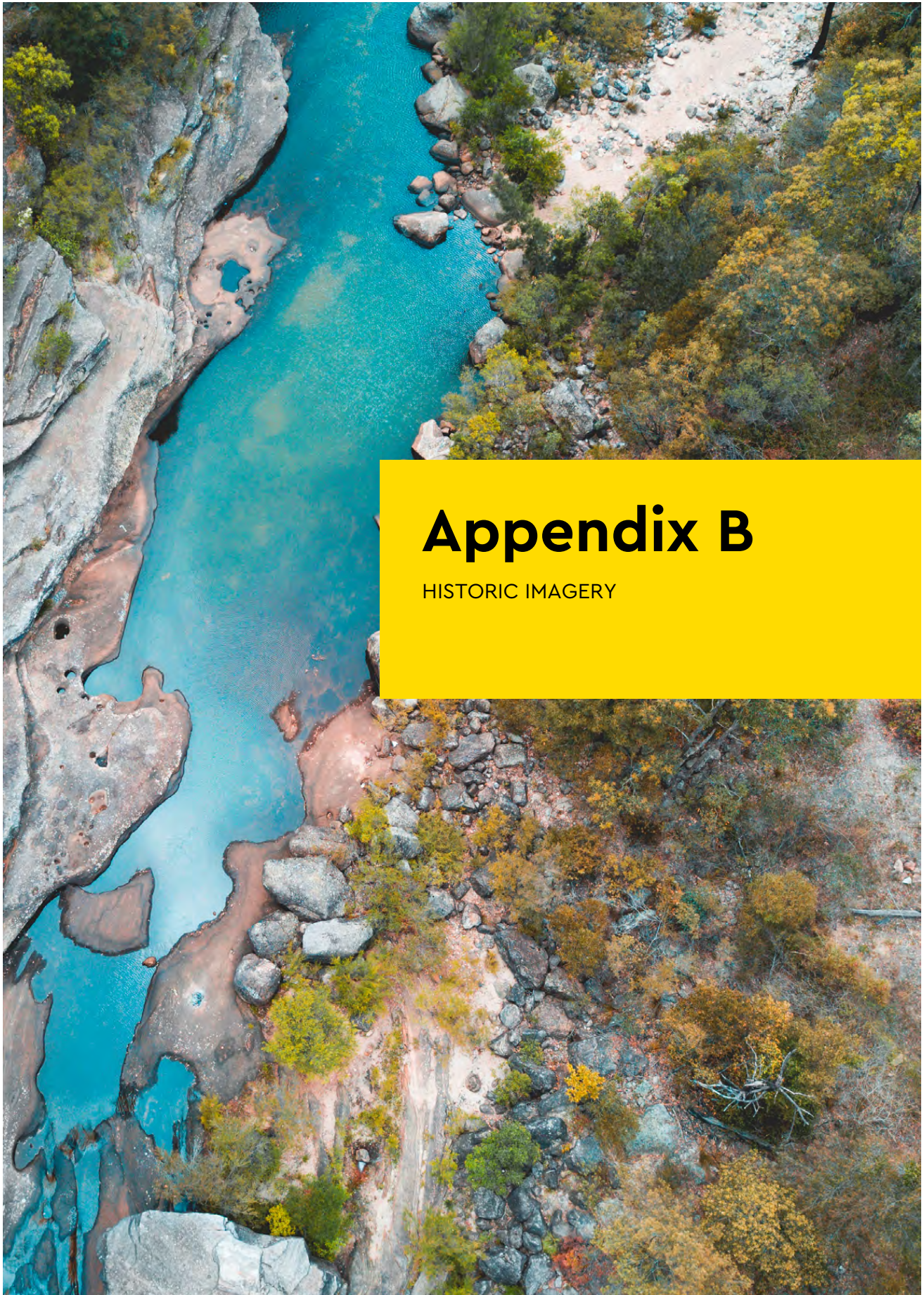


*Distribution diagram of the Blacktown soil landscape showing the occurrence and relationship of dominant soil materials.*



## APPENDIX C: HISTORICAL AERIAL PHOTOGRAPHS

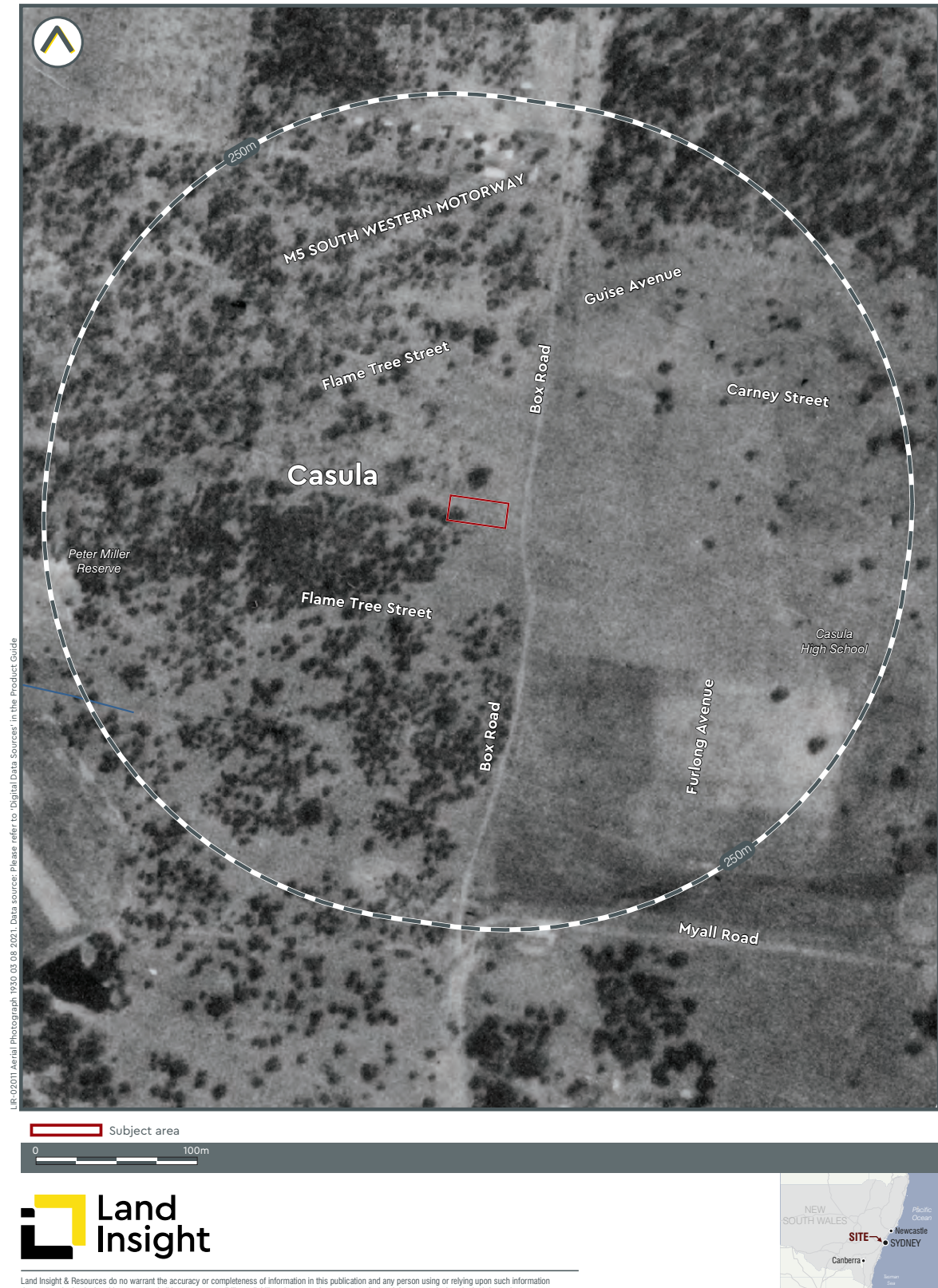
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## IMAGERY INSIGHT

## MAP B1

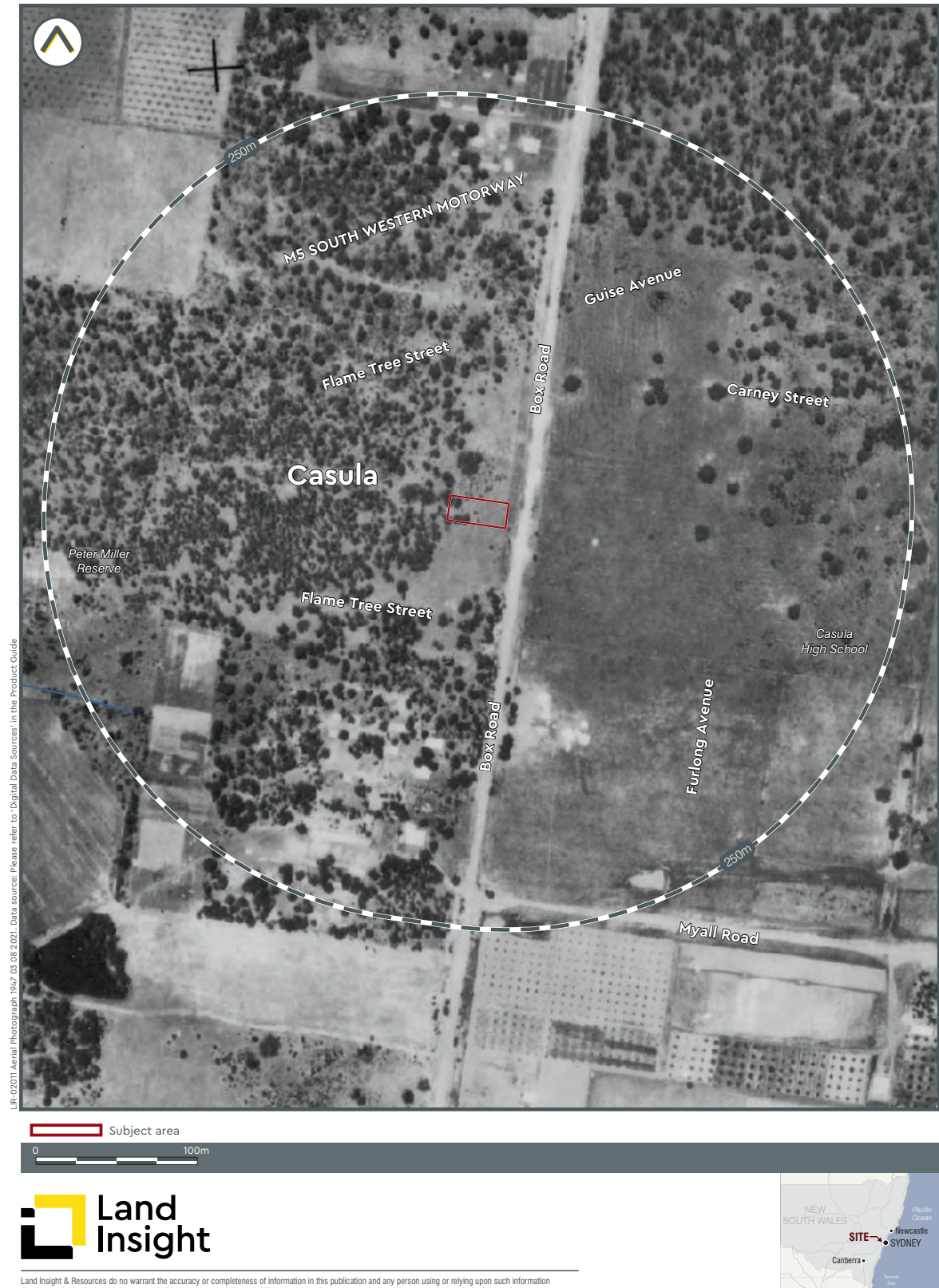
## Historic Aerial Photograph - 1930



## IMAGERY INSIGHT

## MAP B2

## Historic Aerial Photograph - 1947



## IMAGERY INSIGHT

## MAP B3

## Historic Aerial Photograph - 1955



## IMAGERY INSIGHT

## MAP B4

## Historic Aerial Photograph - 1965



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## IMAGERY INSIGHT

## MAP B5

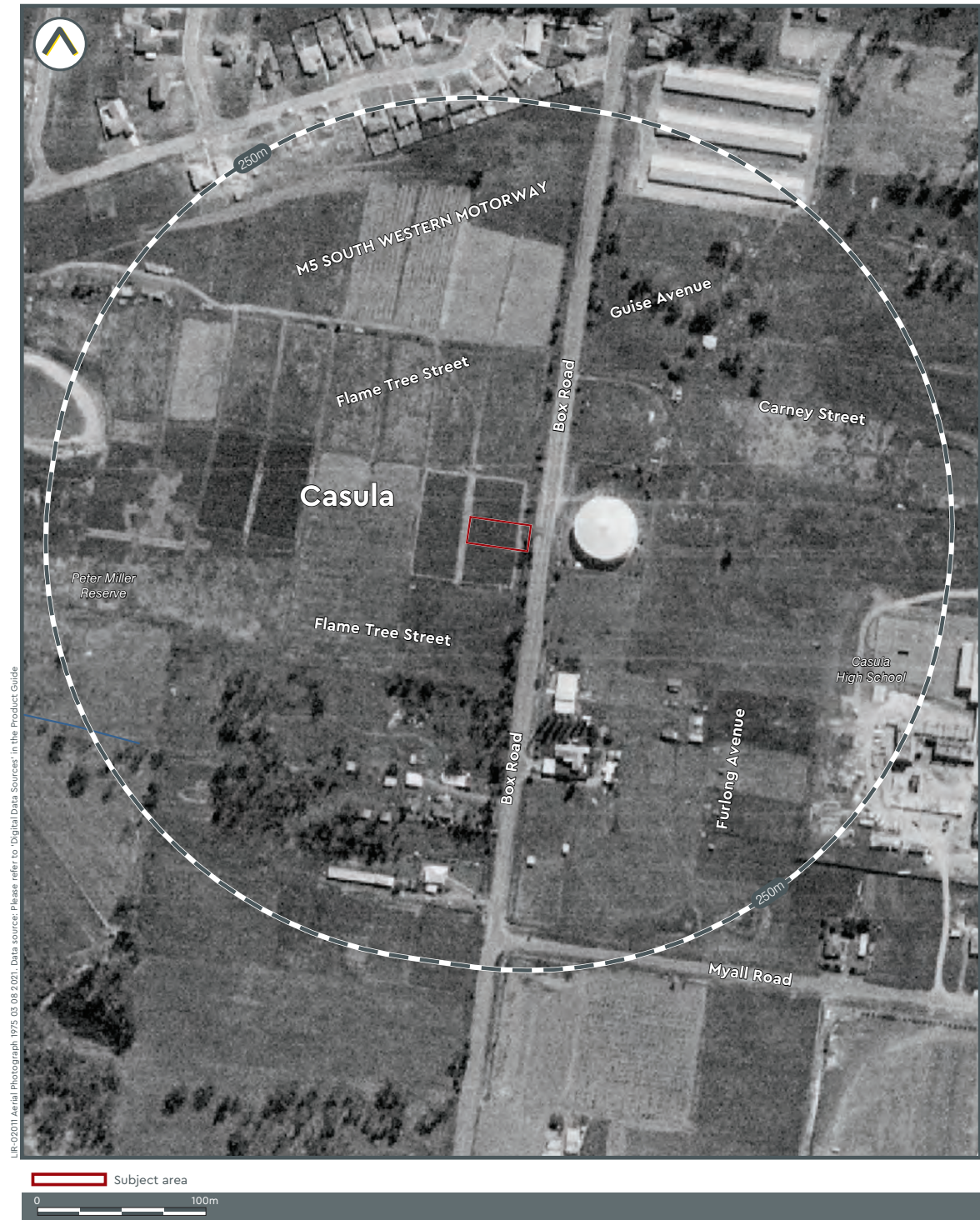
## Historic Aerial Photograph - 1970



## IMAGERY INSIGHT

## MAP B6

## Historic Aerial Photograph - 1975



## IMAGERY INSIGHT

## MAP B7

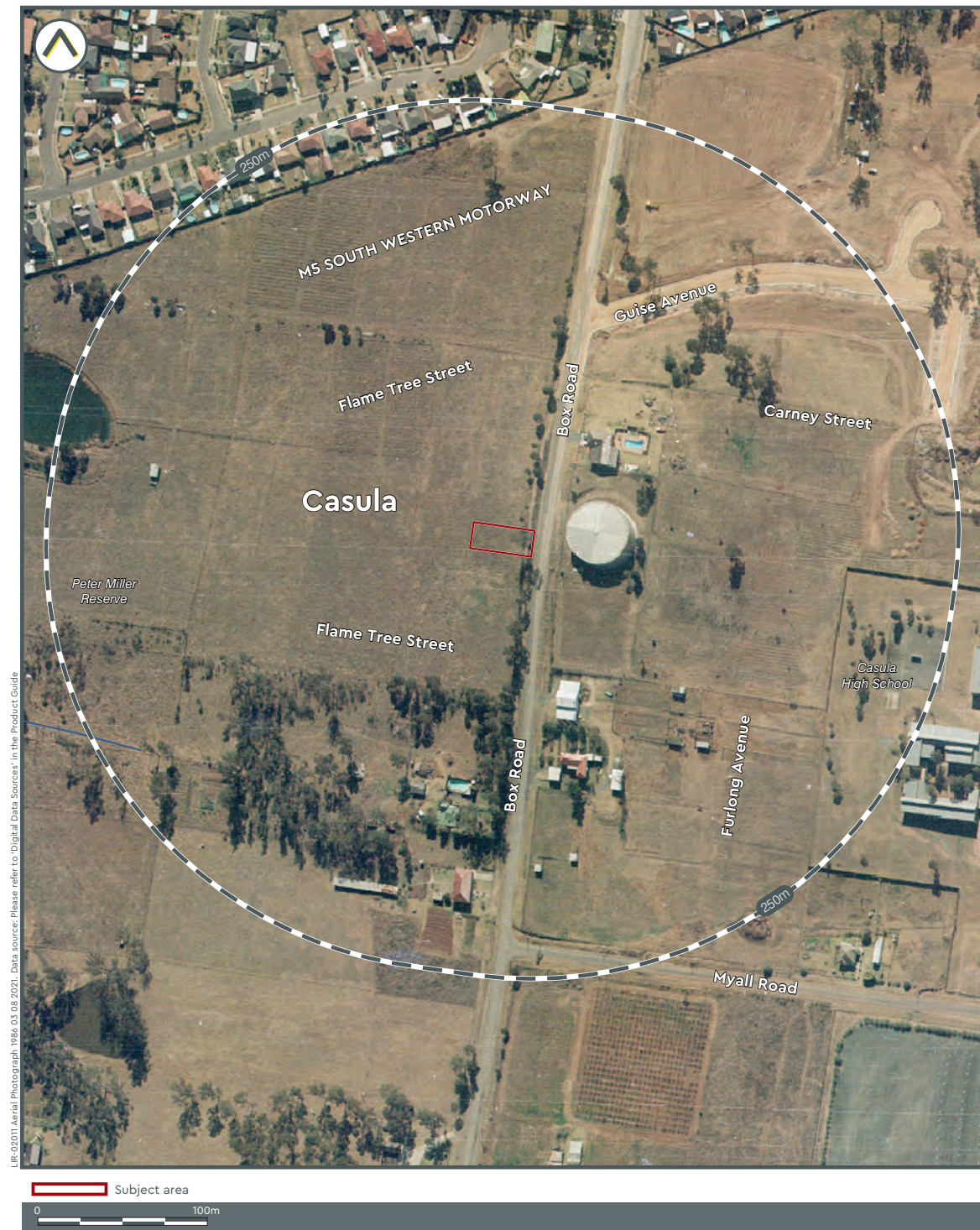
## Historic Aerial Photograph - 1978



## IMAGERY INSIGHT

## MAP B8

## Historic Aerial Photograph - 1986



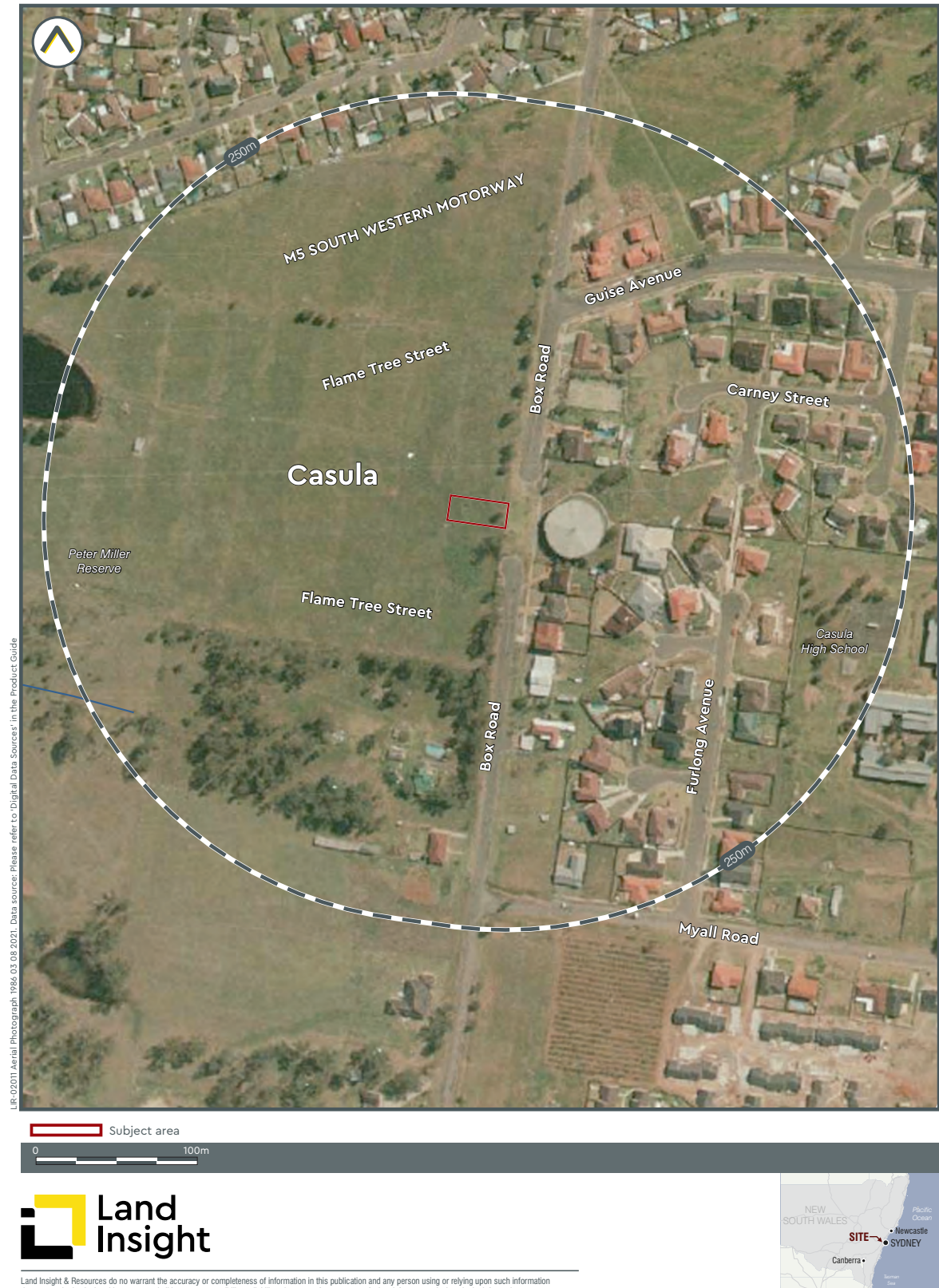
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## IMAGERY INSIGHT

## MAP B9

## Historic Aerial Photograph - 1991



## IMAGERY INSIGHT

## MAP B10

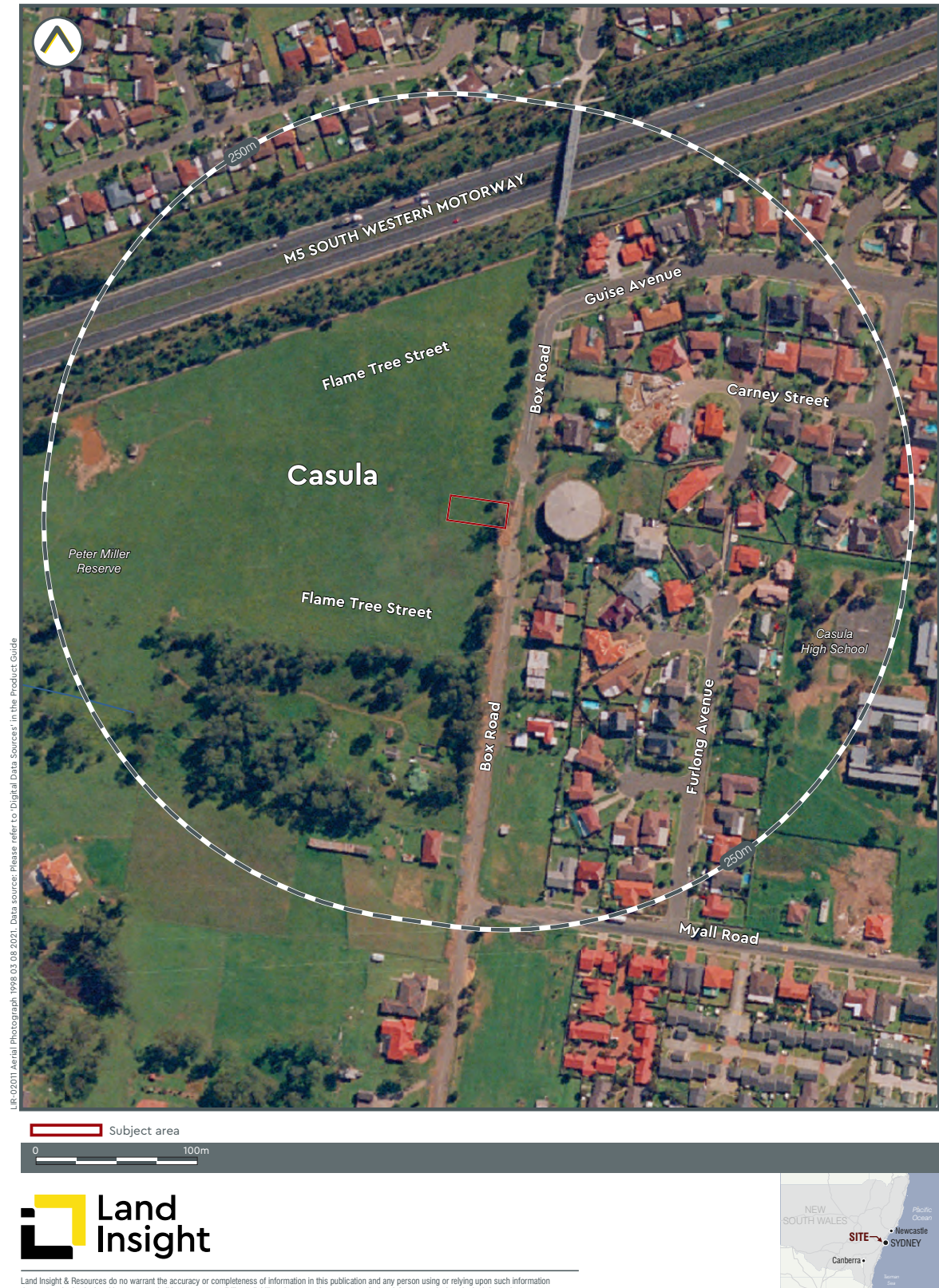
## Historic Aerial Photograph - 1994



## IMAGERY INSIGHT

## MAP B11

## Historic Aerial Photograph - 1998



## IMAGERY INSIGHT

## MAP B12

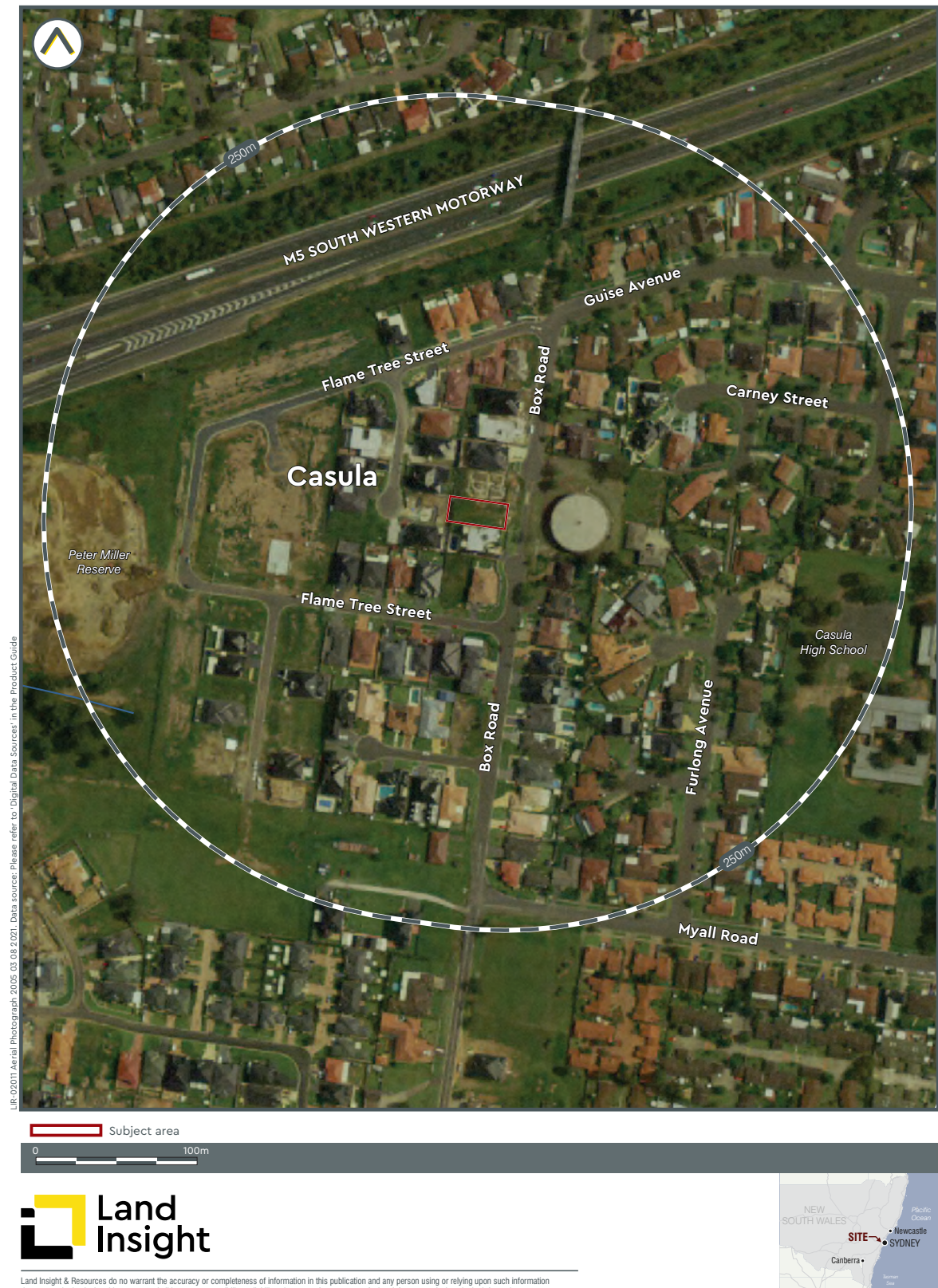
## Historic Aerial Photograph - 2005



## IMAGERY INSIGHT

## MAP B13

## Historic Aerial Photograph - 2008



## IMAGERY INSIGHT

## MAP B14

## Historic Aerial Photograph - 2012



## IMAGERY INSIGHT

## MAP B15

## Historic Aerial Photograph - 2015



## IMAGERY INSIGHT

## MAP B16

## Historic Aerial Photograph - 2018



## IMAGERY INSIGHT

## MAP B17

## Historic Aerial Photograph - 2021







## APPENDIX D: NSW EPA NOTICE

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Section 91 Protection of the Environment Operations Act 1997

## Clean-Up Notice

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LIVERPOOL CITY COUNCIL  
ABN 84 181 182 471  
Locked Bag 7064  
LIVERPOOL BC NSW 1871

Attention: Rajendra Autar

Notice Number 1549298  
File Number EF14/11084  
Date 17-Mar-2017

### NOTICE OF CLEAN-UP ACTION

#### BACKGROUND

1. The Environment Protection Authority ("**the EPA**") is responsible for the administration and enforcement of the *Protection of the Environment Operations Act 1997* ("**the Act**"), including the processing, transport and disposal of waste.
2. The Act defines "waste" to include:
  - a. any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment, or
  - b. any discarded, rejected, unwanted, surplus or abandoned substance, or
  - c. any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, processing, recovery or purification by a separate operation from that which produced the substance, or
  - d. any processed, recycled, re-used or recovered substance produced wholly or partly from waste that is applied to land, or used as fuel, but only in the circumstances prescribed by the regulations, or
  - e. any substance prescribed by the regulations to be waste.

A substance is not precluded from being waste for the purposes of the Act merely because it is or may be processed, recycled, re-used or recovered.

3. The Act provides that any waste that contains asbestos is "asbestos waste".
4. The application of special waste (asbestos waste) to land is a scheduled activity under Schedule 1 of the Act.
5. The EPA understands that asbestos waste from the Western Depot was transported to the Casula High School ("**the Premises**") by Liverpool City Council ("**Council**") in the course of undertaking works at the Premises.

Section 91 Protection of the Environment Operations Act 1997

## Clean-Up Notice



6. The EPA notes that there are asbestos impacted soils at the Premises not associated with Council's works described above.
7. The Premises does not hold an Environment Protection Licence for the scheduled activity of waste application to land.
8. Fragments of fibrous cement boarding found in the material at the Premises have been analysed and confirmed to contain asbestos.
9. Clause 109 of the *Protection of the Environment Operations (General) regulation 2009* prescribes that placing more than 10 tonnes of asbestos waste onto land is land pollution.
10. Investigations carried out by the EPA to date indicate that Council caused the application of asbestos waste to land at the Premises.
11. Land Pollution or pollution of land means placing in or on, or otherwise introducing into or onto, the land (whether through an act or omission) any matter, whether solid, liquid or gaseous:
  - a) that causes or is likely to cause degradation of the land, resulting in actual or potential harm to the health or safety of human beings, animals or other terrestrial life or ecosystems, or actual or potential loss or property damage, that is not trivial, or
  - b) that is of a prescribed nature, description or class that does not comply with any standard prescribed in respect of that matter.
12. The EPA reasonably believes that the application of waste to land at the Premises is causing land pollution as it:
  - a) is prescribed as land pollution (as set out in 9.) and,
  - b) has potential human health and environmental impacts caused by the asbestos waste.
13. The EPA requires Council to take the clean-up actions as set out below.

### DIRECTION TO TAKE CLEAN-UP ACTION

The Environment Protection Authority directs Council, to take the following clean-up action:

- A. Council must cause a Remediation Action Plan ("RAP") to be drafted that sets out the actions that will be taken by Council. The RAP must be to a standard that is satisfactory to the EPA and the Site Auditor and provided to the EPA at least thirty (30) days prior to the remediation works commencing.
- B. The RAP must address the asbestos waste that was caused to be land applied by Council.
- C. Council must remediate the area where the asbestos containing material was caused to be land applied, in accordance with the RAP as stated above.
- D. All asbestos impacted material that is excavated during the remediation works must be transported to a suitably licensed landfill unless otherwise stated in the RAP.
- E. The remediation works must be undertaken by a suitably qualified and licensed contractor.

Section 91 Protection of the Environment Operations Act 1997

## Clean-Up Notice



- F. Council must nominate, in writing, a time/s and date/s that the remediation works will be conducted at least five (5) business days prior to undertaking the any remediation works.
- G. All remediation works must be completed by no later than **5:00 p.m. on Sunday 31 December 2017**.
- H. A Validation Report for the remediation and a Site Management Plan for the on-going management of the remediation area, must be supplied to the EPA within sixty (60) days of the remediation works being completed.
- I. A Site Audit Statement issued by a NSW EPA accredited Site Auditor certifying whether in the Auditor's opinion the remediation area is suitable for continuing use as a school subject to the implementation of a specified Site Management Plan, must be supplied to the EPA within sixty (60) days of the Validation Report and Site Management Plan being supplied to the EPA.
- J. The Site Audit Statement must be provided to the EPA by no later than one hundred and twenty (120) days after the remediation works have are completed.
- K. Information required by this notice must be provided electronically to [waste.operations@epa.nsw.gov.au](mailto:waste.operations@epa.nsw.gov.au) or in hard copy to PO Box A290 Sydney South NSW 1232 and must be addressed to:

**GREG SHEEHY**  
**Director Waste Compliance**

### FEE TO BE PAID

- You are required by law to pay a fee of \$520 for the administrative costs of issuing this notice. An invoice for the fee has been attached to this notice.
- It is an offence not to pay this fee. However you can apply for an extension of time to pay the fee or for the fee to be waived. At the end of this notice there is information about how and when to pay the fee and how to apply for an extension or a waiver of the fee.

.....  
**Greg Sheehy**  
**Director Waste Compliance**  
**Waste & Resource Recovery**  
 (by Delegation)

### INFORMATION ABOUT THIS CLEAN-UP NOTICE

- This notice is issued under section 91 of the Protection of the Environment Operations Act 1997.

Section 91 Protection of the Environment Operations Act 1997

## Clean-Up Notice



- It is an offence against the Act not to comply with a clean-up notice unless you have a reasonable excuse.

### Penalty for not complying with this notice

- The maximum penalty for a corporation is \$1,000,000 and a further \$120,000 for each day the offence continues. The maximum penalty for an individual is \$250,000 and a further \$60,000 for each day the offence continues.

### Cost recovery from the person who caused the incident

- If you comply with this clean-up notice but you are not the person who caused the pollution incident to which the notice relates, you have a right to go to court to recover your costs of complying with the notice from the person who caused the incident.

### Deadline for paying the fee

- The fee must be paid by **no later than 30 days after the date of this notice**, unless the EPA extends the time to pay the fee, or waives the fee.

### How to pay the fee

- Possible methods of payment are listed on the last page of the attached invoice/statement.
- Please include the payment slip from the attached invoice/statement with your payment.

### How to apply for an extension of time to pay/waive the fee

- Any application for an extension of time to pay the fee or for the fee to be waived should be made in writing to the EPA. The application should set out clearly why you think your application should be granted.

### Other costs

- The Protection of the Environment Operations Act allows the EPA to recover from you reasonable costs and expenses it incurs in monitoring action taken under this notice, ensuring the notice is complied with and associated matters. (If you are going to be required to pay these costs and expenses you will later be sent a separate notice called a "Notice Requiring Payment of Reasonable Costs and Expenses").

### Continuing obligation

- Under section 319A of the Act, your obligation to comply with the requirements of this notice continues until the notice is complied with, even if the due date for compliance has passed.

### Variation of this notice

- This notice may only be varied by subsequent notices issued by the EPA.



## APPENDIX E: PHOTO PLATES

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### Mimosa Park, Box Road – 17 September 2021



Photo Plate 1: The site, Mimosa Park – facing west from Box Road.



Photo Plate 2: Facing east from south western corner of the site.



Photo Plate 3: Test pit TP1



Photo Plate 4: Test pit TP1 – Natural mottled red and beige clay from ~0.5 mBGL.



Photo Plate 5: Test pit TP1 – Natural dark brown/ grey shale cobbles from 0.9 mBGL.



Photo Plate 6: Test pit TP2 – Shallow fill overlaying natural mottle orange and grey clay with shale cobbles from ~1.0 mBGL.



Photo Plate 7: Test pit TP3 - Pieces of asphalt and road base material at surface.



Photo Plate 8: Test pit TP3 – Brown clay from 0 – 0.5 mBGL with inclusions of trace brick and tile fragments and metal rod.



Photo Plate 9: Test pit TP3 – Orange and grey mottled clay from ~1.0 mBGL



Photo Plate 10: Test pit TP3 – Brown and dark grey shale cobbles from ~1.4 mBGL.



Photo Plate 11: Test pit TP5 – Shallow fill overlaying orange and grey mottled clay with shale cobbles at depth



Photo Plate 12: Test pit TP5 – Piece of metal ribbon within shallow fill.



Photo Plate 13: Test pit TP5 – dark grey shale cobbles from 1.4 mBGL.



Photo Plate 14: Test pit TP7



Photo Plate 15: Test pit TP7 – Trace inclusion of tile fragment within shallow fill.

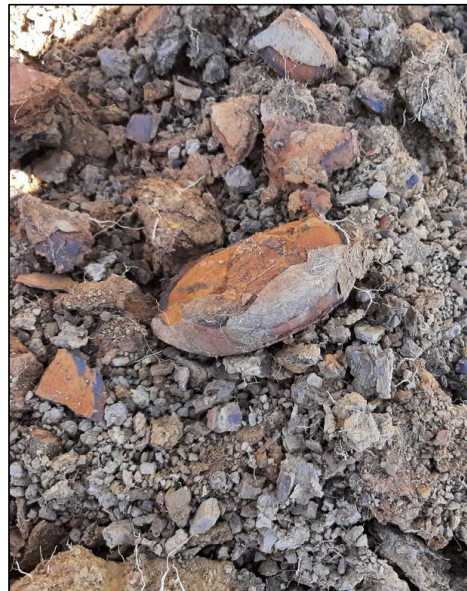


Photo Plate 16: Test pit TP7 – Large, brown and dark grey shale cobbles from ~1.4 mBGL.



Photo Plate 17: Test pit TP10 – Shale cobbles and boulders from 0.15 mBGL.



Photo Plate 18: Test pit TP10 – Excavated, large shale cobbles and boulders from 0.15 mBGL with quantity and size increasing with depth.



Photo Plate 19: Western boundary wall, with neighbouring property to the left in the photograph – facing north.



Photo Plate 20: Western boundary wall, with domestic refuse at surface including food cans and plastic and corrugated tubing – facing north.



### Mimosa Park, Box Road – 23 August 2023



Photo Plate 1: The site, Mimosa Park – facing west from Box Road.



Photo Plate 2: Facing east from south western corner of the site.



Photo Plate 3: Site facing south west.



Photo plate 4: Rubbish and retaining wall observed at western boundary of site.



Photo plate 5: Rubbish and construction debris found in north west corner of site.



Photo plate 6: Rubbish and construction debris found on western boundary of site.



Photo plate 7: Rubbish found on western boudary of site.



Photo plate 8: Subsidence at two locations on site.



## APPENDIX F: TEST PIT LOGS

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# Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP1	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070		
GROUNDWATER: Not encountered	DATUM:	PROJECT: Mimosa Park DSI	Proj. Manager: LD
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Soft, brown CLAY with very minor trace inclusions of concrete, terracotta tile and glass fragments.		0.2 0.4		TP1_0.3	D	
<b>NATURAL</b> Firm, red CLAY with pale grey mottles and minor inclusions of dark grey shale gravels.		0.6 0.8			D	
<b>NATURAL</b> Brown, firm CLAY with 60 % shale cobbles and boulders		1.0 1.2 1.4 1.6 1.8				
EOH @ 1.8 mBGL		1.8				
		2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.

# Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP2	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070		
GROUNDWATER: Not encountered	DATUM:	PROJECT: Mimosa Park DSI	Proj. Manager: LD
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Soft, brown CLAY with very minor trace inclusions of concrete and terracotta tile fragments.		0.2 0.4		TP2_0.3	D	
<b>NATURAL</b> Firm, red/ orange and pale grey mottled CLAY.		0.6 0.8 1.0			D	
<b>NATURAL</b> Firm, grey and beige mottled CLAY with 50 % dark grey shale cobbles.		1.2 1.4			D	
EOH @ 1.5 mBGL		1.6 1.8 2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.

# Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP3	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070	PROJECT: Mimosa Park DSI	Proj. Manager: LD
GROUNDWATER: Not encountered	DATUM:		
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Soft, brown CLAY with grey shale cobbles (~5%) and minor trace inclusions of concrete and terracotta tile fragments, one metal rod and a metal wire.		0.2 0.4		TP3_0.4	D	Domestic refuse and minor building rubble including bricks and concrete cobbles visible along western site boundary.
<b>NATURAL</b> Firm, brown CLAY with 30% dark grey shale gravels and cobbles.		0.6 0.8 1.0			D	
<b>NATURAL</b> Firm, brown and pale grey CLAY with red mottles. Minor inclusions of grey shale cobbles.		1.2 1.4			D	
<b>NATURAL</b> Dark grey and brown shale cobbles and boulders.						
<b>EOH @ 1.5 mBGL</b>		1.6 1.8 2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.

## Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP4	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070		
GROUNDWATER: Not encountered	DATUM:	PROJECT: Mimosa Park DSI	Proj. Manager: LD
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Soft brown CLAY with 5% grey shale cobbles and singular inclusion of glass fragment and one concrete cobble.		0.2		TP4_0.2	D	
<b>NATURAL</b> Very firm, red CLAY with minor pale grey mottles.		0.4				
		0.6				
		0.8			D	
<b>NATURAL</b> Very firm, red CLAY with pale grey mottles and grey shale cobbles increasing with depth.		1.0				
<b>EOH @ 1.0 mBGL</b>						
		1.2			D	
		1.4				
		1.6				
		1.8				
		2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.

# Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP5	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070		
GROUNDWATER: Not encountered	DATUM:	PROJECT: Mimosa Park DSI	Proj. Manager: LD
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Soft brown CLAY with ~5% grey shale cobbles and singular inclusion of rusty metal ribbon (length: ~20 cm)		0.2		TP5_0.2	D	
<b>NATURAL</b> Very firm, orange and pale grey mottled CLAY with black and dark grey shale gravels.		0.4				
		0.6				
		0.8			D	
<b>NATURAL</b> Firm, grey CLAY with ~50% dark grey shale gravels and cobbles.		1.0				
<b>EOH @ 1.0 mBGL</b>						
		1.2			D	
		1.4				
		1.6				
		1.8				
		2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.

# Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP6	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070		
GROUNDWATER: Not encountered	DATUM:	PROJECT: Mimosa Park DSI	Proj. Manager: LD
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Firm, brown CLAY with minor trace inclusion of brick fragments and singular plastic fragment.		0.2		TP6_0.1	D	
<b>NATURAL</b> Firm, brown CLAY with brown and grey shale cobbles (20%)		0.4			D	
<b>NATURAL</b> Firm, grey CLAY with ~50% dark grey shale gravels and cobbles.		0.6			D	
<b>NATURAL</b> Firm, brown and orange CLAY with ~60% brown and grey shale cobbles and boulders.		0.8			D	
EOH @ 0.9 mBGL		1.0				
		1.2				
		1.4				
		1.6				
		1.8				
		2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.

# Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP7	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070		
GROUNDWATER: Not encountered	DATUM:	PROJECT: Mimosa Park DSI	Proj. Manager: LD
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Soft, brown CLAY with ~5% grey shale cobbles with singular tile fragment.		0.2		TP7_0.2	D	
<b>NATURAL</b> Firm, brown CLAY with ~5% black / dark grey shale gravels.		0.4			D	
<b>NATURAL</b> Firm, brown and grey CLAY with ~70% grey and brown shale cobbles and boulders.		0.6				
		0.8			D	
		1.0				
EOH @ 1.0 mBGL		1.2				
		1.4				
		1.6				
		1.8				
		2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.

# Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP8	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070		
GROUNDWATER: Not encountered	DATUM:	PROJECT: Mimosa Park DSI	Proj. Manager: LD
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Soft, brown CLAY with minor trace inclusions of brick and terracotta fragments.		0.2		TP8_0.15	D	
<b>NATURAL</b> Stiff red CLAY with minor pale yellow mottles.		0.4			D	
		0.6				
<b>NATURAL</b> Firm, brown CLAY with ~75% black / dark grey shale cobbles / boulders		0.8			D	
		1.0				
		1.2				
EOH @ 1.2 mBGL						
		1.4				
		1.6				
		1.8				
		2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.

# Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP9	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070		
GROUNDWATER: Not encountered	DATUM:	PROJECT: Mimosa Park DSI	Proj. Manager: LD
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Soft, brown CLAY with brown, black and dark grey shale gravels and cobbles.		0.2		TP9_0.15	D	
<b>NATURAL</b> Firm, orange, brown and grey mottled CLAY with ~10% black shale gravels and cobbles.		0.4			D	
Firm, brown CLAY with ~40% dark grey shale gravels and cobbles.		0.6			D	
<b>NATURAL</b> Firm, brown CLAY with ~70% dark grey shale cobbles.		0.8			D	
		1.0				
		1.2				
EOH @ 1.3 mBGL		1.4				
		1.6				
		1.8				
		2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.

## Geological Borelog



LOCATION: Mimosa Park, 22 Box Road, Casula NSW		Borehole Log: TP10	Logged by: KA
SURFACE ELEVATION: N/A	JOB NUMBER: 121070		
GROUNDWATER: Not encountered	DATUM:	PROJECT: Mimosa Park DSI	Proj. Manager: LD
DRILL METHOD: Mechanical Excavation	DATE DRILLED: 17/09/2021		

STRATIGRAPHY	GRAPHIC LOG	Depth (metres)	Sample Depth	Sample ID	Moisture Content	Comments
<b>FILL</b> Firm brown CLAY with ~30% black shale gravels.			■	TP10_0.05	D	
<b>NATURAL</b> Firm, brown CLAY with ~50% black shale gravels and cobbles.		0.2			D	
		0.4			D	
~80% dark grey shale cobbles and boulders with <20% brown clay.		0.6			D	
		0.8			D	
EOH @ 0.9 mBGL						
		1.0				
		1.2				
		1.4				
		1.6				
		1.8				
		2.0				

**NOTE:** This bore log is for environmental purposes only and is not intended to provide geotechnical information.



## APPENDIX G: QUALITY ASSURANCE / QUALITY CONTROL

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### Tables

Table 1: Data quality objectives

Table 2: Measurement data quality indicators (MDQIS)

Table 3: Field intra and inter duplicate results



## 1 INTRODUCTION AND BACKGROUND

### 1.1 Introduction

The aim of quality control and quality assurance (QA/QC) is to deliver data that is:

- representative of what is sampled;
- precise;
- accurate; and
- reproducible.

As investigations involve both field and laboratory QA/QC, these are similarly divided. The objective of this document is to evaluate and identify the data quality objectives (DQOs) and the data quality indicators (DQIs), which are used to assess whether the DQOs have been met.

All soil sampling procedures to be followed are described in full in our Soil, gas and groundwater sampling manual (Environmental Earth Sciences Pty Ltd 2011). This document should be referred to for field procedures for sampling and conveyance. Copies are available for inspection if required.

The NSW guideline documents used in the evaluation of the data set for this investigation are:

- National Environment Protection Council (NEPC) (2013) - *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)* (ASC NEPM, 2013).
- NSW EPA (2017). *Contaminated Land Management: Guidelines for NSW Site Auditor Scheme (3rd edition)*.
- NSW Environment Protection Authority (EPA) (1995). *Contaminated Sites: Sampling design guidelines*.
- NSW EPA (2020). *Contaminated Land: Guidelines: Consultants Reporting on Contaminated Sites*.
- Standards Australia (1999). Guide to the investigation and sampling of sites with potentially contaminated soil, Part 2: Volatile substances (AS4482.2).
- Standards Australia (2005). Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds (AS 4482.1).

Data quality is typically discussed in terms of precision, accuracy, representativeness, comparability and completeness. These are referred to as the PARCC parameters. The PARCC (and additional QA) parameters are discussed within this report.



The following items form part of the QA/QC appendix:

- repeatability;
- precision;
- accuracy;
- representativeness;
- completeness;
- comparability;
- sensitivity;
- holding times;
- blanks; and
- procedures for anomalous samples and confirmation checking.

## 1.2 Background

Quality Assurance (QA) is “a set of activities intended to establish confidence that quality requirements will be met” (AS/NZS ISO 9000:2005).

This encompasses all actions, procedures, checks and decisions undertaken to ensure the accuracy and reliability of analysis results. It includes routine procedures which ensure proper sample control, data transfer, instrument calibration, the decisions required to select and properly train staff, select equipment and analytical methods, and the day-to-day judgements resulting from regular scrutiny and maintenance of the laboratory system.

Quality Control (QC) is “a set of activities intended to ensure that quality requirements are actually being met” (AS/NZS ISO 9000:2005). In other words, the operational techniques and activities used to fulfil the requirements for quality.

These are the components of QA which serve to monitor and measure the effectiveness of other QA procedures by comparison with previously decided objectives. They include measurement of the quality of reagents, cleanliness of apparatus, accuracy and precision of methods and instrumentation, and reliability of all of these factors as implemented in a given laboratory from day to day.

A complete discussion of either of these terms or the steps for implementing them is beyond the scope of this document. It is widely recognised, however, that adoption of sound laboratory QA and QC procedures is essential and readers are referred to documentation available from the National Association of Testing Authorities (NATA), if further information is required.



## 2 DATA QUALITY OBJECTIVES

Development of data quality objectives (DQOs) for each project is a requirement of the NEPC (2013). This is based on a DQO process formulated by the USEPA for contaminated land assessment and remediation and provides sound guidance for a consistent approach in understanding site assessment and remediation.

The DQOs are defined in a series of seven steps. **Table 1** outlines the seven steps and refers to the sections of the report which address these quality objectives.

**Table 1: Data quality objectives**

Step	Description	Comment	Location in main report
1	State the problem	The problem will be addressed directly by scientists from Environmental Earth Sciences NSW.  The problem is that the site will be used for future recreational and public use and Liverpool City Council wish to determine if there is the potential for soil contamination to have occurred due to past land uses. The purpose of this investigation is to collect basic site information to identify potential contaminants, potentially affected media and potential areas of contamination by reviewing the site history, physical setting including local geology and hydrogeology and site conditions.	<b>Section 1</b>
2	Identify the decision	A detailed environmental site investigation (DSI) was commissioned to determine if the past or present site activities have adversely impacted the site or environment.  If required, Environmental Earth Sciences NSW will provide guidance on actions required to ensure the site becomes suitable for continued or future use.	<b>Sections 1 and 2</b>
3	Identify the inputs for the decision	The study inputs include historical site information including aerial photographs for the site and reference to published guidelines to assist the decision-making process.	<b>Sections 4 and 5</b>
4	Define the boundaries for the study	The site location and physical boundaries are shown on <b>Figure 1</b> and <b>Figure 2</b> and defined in the report.  The temporal boundary of the project is restricted to the timing of the investigation.	<b>Section 4, Figures 1 and 2</b>
5	Develop a decision rule	All analytical data will be compared and evaluated against appropriate published criteria. The NEPC (2013) will be used as the primary guidance document in decision making on action levels. Dependent upon the sampling and analysis design, statistical parameters such as arithmetic mean, standard deviation and 95% upper confidence limits (95% UCLs) may be applied to designated soil populations for particular analytes. In the event that action levels are exceeded, a management plan, remedial action plan, and/or qualitative risk assessment (with modelling of potential groundwater impacts on the local receiving environment) will be required. These procedures constitute the alternative action plan.	<b>Section 7</b>



Step	Description	Comment	Location in main report
6	Specify tolerable limits on decision error	Acceptable limits for field data analysis (relative percent differences for primary and duplicate results) are between 50 and 150 percent (depending on the origin of the sample and volatility of the chemicals present). Acceptable limits for laboratory duplicate analysis may be affected by the heterogeneity of soil and will be set based on site specific information such as background concentrations. These are summarised in Table 2 as the measurement data quality indicators (MDQIs), which will be used to establish whether the DQOs have been met.  Most of the procedures in the Standards Australia AS 4482.1 (2005) <i>Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds</i> and NEPC (2013) have risk probabilities associated with allowable error margins incorporated into them. It is therefore proposed that no further "tolerable limits" be investigated at this stage of the project.	Section 7, QA/QC Appendix (G).
7	Optimise the design for obtaining data	The sample design will be undertaken with reference to AS4482.1. As well as a statistically justifiable <i>systematic</i> sampling design, this sampling pattern has also taken into account targeted areas of concern on the site (i.e. <i>judgemental</i> sampling locations). Environmental Earth Sciences NSW believes that the sampling design is optimal considering temporal limitations and access constraints. The density of the sampling pattern and the quality of the data set are suitable for determination of the suitability of the site for its proposed current and future use.	Sections 6

Based on the DQOs the following measurement data quality indicators (MDQIs) are provided in **Table 2** below.

**Table 2: Measurement data quality indicators (MDQIS)**

Parameter	Procedure	Minimum Frequency	Criteria	
			(5 to 10x LOR <sup>4</sup> )	>10x LOR
Precision	Field Duplicates	1 in 20 - metals	<80 RPD	<50 RPD
		1 in 20 - semi-volatiles	<100 RPD	<80 RPD
		1 in 20 - volatiles	<150 RPD	<130 RPD
	Lab Replicate*	1 in 20	<50 RPD	<30 RPD
Accuracy*	Reference Material	1 in 10	60% to 140%R	80% to 120%R
	Matrix spikes			
	Surrogate spikes			
Representativeness*	Reagent Blanks	1 per batch	No detection	
	Holding Times*	Every sample	-	
Blanks**	Trip Blank	1 per batch	No detection	
	Rinsate Blanks			
Sensitivity	Limit of Reporting	Every sample	LOR < ½ site criteria	

**Notes:**

1. RPD – relative percentage difference;
2. %R – percent recovery;
3. LOR – limit of reporting;
4. no limit at <5x LOR;
5. \* the MDQI is usually specified in the standard method. If not, use the default values set out in this table; and
6. \*\* only necessary when measuring dissolved metals and volatile organic compounds in water samples.

It should be noted that Standards Australia (AS4482.1) specify that typical MDQIs for precision should be  $\leq 50\%$  RPD, however also acknowledge that low concentrations and organic compounds in particular can be acceptably outside this range. The standard suggests that  $\leq 50\%$  RPD be used as a 'trigger' and values above this level of repeatability need to be noted and explained.

Our adopted MDQIs for precision acknowledge the intrinsic heterogeneity of metal and semi volatile chemical concentrations in disturbed soil that may potentially cause large variations in results between laboratory subsamples (although all efforts are made to homogenise non-volatile duplicate samples). Similarly, large variations in volatile chemical concentrations between duplicates may be unavoidable even when using best practice sampling methodology, especially as we seek to minimise the disturbance to the sample while splitting it which means a high degree of inherent heterogeneity is expected.

As such, our adopted RPD criteria are considered to be a suitable measure for the reproducibility of results within a naturally heterogeneous media such as soil. A  $\leq 50\%$  RPD trigger value will be used, with any exceedance discussed and assessed for acceptability.

### 3 QUALITY CONTROL AND QUALITY ASSURANCE

#### 3.1 Measurement data quality objectives

Step 7 of the DQO process (**Section 2.0**) is a focus on the quality of the information by measurement, that is, measurement data quality objectives (MDQOs). The aim of a quality control and quality assurance (QA/QC) is to deliver data that is representative of what is sampled, precise, accurate and reproducible. As investigations involve both field and laboratory QA/QC, these are similarly divided. The objective of this section is to provide the MDQOs and the measurement data quality indicators (MDQIs), which will be used to establish whether the DQOs have been met.

All surface water, groundwater and soil sampling procedures need to be undertaken according to a standard procedure, for example those procedures set out in:

- NSW Environment Protection Authority (EPA) (1995). *Contaminated sites: Sampling design guidelines*;
- NSW EPA (2020). *Contaminated Land Guidelines: Consultants reporting on contaminated sites*;



- Standards Australia (1999). Guide to the investigation and sampling of sites with potentially contaminated soil, Part 2: Volatile substances, (AS 4482.2). Homebush, NSW; and
- Standards Australia (2005). Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds, (AS 4482.1). Homebush, NSW

### 3.2 Field QA/QC

#### 3.2.1 Details of sampling team

Fieldwork was conducted on 17 September 2021 by a competent environmental scientist.

#### 3.2.2 Sampling controls

Decontamination procedures carried out between sampling events included the following.

All sampling equipment that was re-used which came into contact with soil samples, were thoroughly washed with detergent (Decon 90 or similar) water, then rinsed with clean water and dried before the collection of each sample. Any items accidentally contaminated were similarly washed before re-use.

Soil samples were collected from soil profiles removed from excavator bucket. New nitrile gloves were used at each sampling location. During this process the field scientist would also determine the colour and texture of the soil sample.

#### Sample notation details

The chemical analyses performed on each sample are presented on the chain of custody documentation (**Appendix I**) which also identified for each sample – the sampler, nature of the sample, collection date, analyses to be performed, sample preservation method (if any), departure time from the site and dispatch courier.

Site observations and weather conditions during sampling are described in **Sections 5.5** and **7.1** of the main report. Primary and intra (blind) duplicate samples for this project was completed by ALS.

#### Intra (blind) duplicate sampling

The intra (blind) duplicate sample was collected at a rate of one duplicate per twenty samples collected (5%). For this project one intra (blind) duplicate sample was collected for analysis. The summary of the relative percentage differences (RPDs) of the collected intra duplicate sample is presented in **Table 3**.

Duplicate samples were split evenly distributing the soil sample between two clean glass jars. The field scientists typically attempt to disturb soils as little as possible.

The scope of this project did not include analysis of trip and field blanks, background samples, rinsate samples or laboratory prepared trip spikes for the soil sampling program.



### 3.3 Field Duplicate RPD assessment

Analysis of the relative percentage difference (RPD) between the field duplicate and a primary sample resulted in strong agreement between the samples with all values below measurement data quality indicators (MDQIS) RPD thresholds or below the laboratory's level of reporting.

**Table 3: Calculable RPDs**

Sample ID	TP10	FD1	RPD %
Sample Date	17/09/2021	17/09/2021	
Analyte group/ Analyte			
Heavy metals			
Arsenic	<5	<5	NC
Cadmium	<1	<1	NC
Chromium	12	14	15.39
Copper	36	41	12.99
Lead	14	14	0
Nickel	18	19	48.28
Zinc	76	69	9.66
Mercury	<0.1	<0.1	NC
Total Petroleum Hydrocarbons			
C6 - C9 Fraction	<10	<10	NC
C10 - C14 Fraction	<50	<50	NC
C15 - C28 Fraction	<100	<100	NC
C29 - C36 Fraction	<100	<100	NC
C10 - C36 Fraction (sum)	<50	<50	NC
Total Recoverable Hydrocarbons			
C6 - C10 Fraction	<10	<10	NC
C6 - C10 Fraction minus BTEX (F1)	<10	<10	NC
>C10 - C16 Fraction	<50	<50	NC
>C16 - C34 Fraction	<100	<100	NC
>C34 - C40 Fraction	<100	<100	NC
>C10 - C40 Fraction (sum)	<50	<50	NC
>C10 - C16 Fraction minus Naphthalene (F2)	<50	<50	NC



Sample ID	TP10	FD1	RPD %
Sample Date	17/09/2021	17/09/2021	
Analyte group/ Analyte			
BTEX			
Benzene	<0.2	<0.2	NC
Toluene	<0.5	<0.5	NC
Ethylbenzene	<0.5	<0.5	NC
meta- & para-Xylene	<0.5	<0.5	NC
ortho-Xylene	<0.5	<0.5	NC
Total Xylenes	<0.5	<0.5	NC
Sum of BTEX	<0.2	<0.2	NC

**Notes:**

- Values heightened in green are within acceptable RPD limits as outlined in **Table 2**.



### 3.4 Laboratory QA/QC

Laboratory analysis of primary and intra (blind) duplicate samples for this project were completed by ALS and SAL, who are accredited by NATA for the methods used, details of this accreditation can be viewed at <http://www.nata.asn.au/>, while details of the samples sent to each laboratory and the analysis requested are contained in the chain of custody documentation held in **Appendix I**. The analytical methods are noted on the laboratory transcripts.

#### 3.4.1 Holding times

The collection date of samples, laboratory extraction date and allowable holding times are presented in the laboratory quality reports. All analysis was completed within the allowable holding times.

#### 3.4.2 Limits of reporting

Acceptable limits of reporting (LOR) were mostly provided by the analytical laboratory to allow the results to be compared against the soil investigation levels with the exception of few analytes (list analytes) that were considered not be a chemical of concern.

### 3.5 QA/QC data evaluation

The general “rule of thumb” is that one intra-laboratory duplicate samples should be taken for every 20 samples taken (5%). The relative percentage differences (RPD) of the primary and duplicate sample for all contaminants were reported within the accepted ranges (refer to **Table 2** in this appendix). An assessment of the data collected indicated that appropriate rate of QA/QC samples were collected as part of the fieldwork program.

Field observations and measurements are comparable to laboratory data. The presence (and absence) of odours noted by olfactory senses correspond to the detected concentration of volatile chemicals at those locations.

Extraction and analysis of samples were all within the relevant prescribed holding times. The internal laboratory control results (blanks, duplicates and spikes) are considered to be acceptable.



## 4 QA/QC APPENDIX REFERENCES

American Public Health Association (APHA) 2012, *Standard methods for the examination of water and waste-water*, 22nd edition, APHA, Washington DC.

Australian/New Zealand Standard (AS/NZS) 2008, *Quality management systems - Requirements (AS/NZS ISO 9001:2008)*, Standards Australia/Standards New Zealand, Sydney/Wellington.

Environmental Earth Sciences Pty Ltd 2011, *Soil, gas and groundwater sampling manual*, 7th Edition (Unpublished).

International Organisation for Standardisation 2005, *Quality management systems – Fundamentals and vocabulary* (ISO 9000:2005).

National Environment Protection Council (NEPC) (2013) – *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)* (ASC NEPM, 2013).

NSW EPA (1995) — *Contaminated sites: Sampling Design Guidelines* (EPA, 1995) (the “Sampling Design Guidelines”).

NSW EPA (2017) — *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme 3<sup>rd</sup> Edition* (the “Site Auditor Guidelines”).

NSW EPA (2020) – *Contaminated Land Guidelines: Consultants Reporting on Contaminated Land*.

Rayment, GE and Lyon, DJ 2011, *Soil chemical methods – Australasia*, CSIRO Publishing.

Rayment, GE and Higginson, FR 1992, *Australian laboratory handbook of soil and water chemical methods*, Inkarta Press, Melbourne.

Standards Australia 1999, *Guide to the investigation and sampling of sites with potentially contaminated soil*, Part 2: Volatile substances (AS4482.2).

Standards Australia 2005, *Guide to the investigation and sampling of sites with potentially contaminated soil*, Part 1: Non-volatile and semi-volatile compounds (AS 4482.1).



## APPENDIX H: RESULTS SUMMARY TABLE

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Table A: Laboratory Results Summary Table - Beneficial re-use

Location: Sample Date:						Mimosa Park, Box Road, Casula							
						TP1_0.3	TP3_0.4	TP5_0.2	TP6_0.1	TP7_0.2	TP8_0.15	TP10_0.05	
						17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	
Analyte Group / Name	Units	LOR	HIL C	HSL C (Asbestos)	HSL C (Vapour)								
Asbestos													
Asbestos presence / absence	Yes/No	-	---	No visible asbestos on the ground surface	---	No	No	No	No	No	No	No	
Asbestos present as free fibres	Yes/No	-	---	---	---	No	No	No	No	No	No	No	
Moisture Content													
Moisture Content	%	1	---	---	---	11.9	11.1	11.5	10	13.8	8.2	8.7	
BTEX													
Benzene	mg/kg	0.2	---	---	3000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	mg/kg	0.5	---	---	NL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
meta- & para-Xylene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
ortho-Xylene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Total Xylenes	mg/kg	0.5	---	---	NL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of BTEX	mg/kg	0.2	---	---	---	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Metals													
Arsenic	mg/kg	5	300	---	---	6	<5	<5	5	<5	<5	<5	
Cadmium	mg/kg	1	90	---	---	<1	<1	<1	<1	<1	<1	<1	
Chromium	mg/kg	2	300	---	---	17	13	13	15	14	12	12	
Copper	mg/kg	5	17,000	---	---	30	36	37	33	30	21	36	
Lead	mg/kg	5	600	---	---	20	18	13	14	16	11	14	
Mercury	mg/kg	0.1	80	---	---	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Nickel	mg/kg	2	1200	---	---	11	15	18	16	13	11	18	
Zinc	mg/kg	5	30,000	---	---	51	70	73	73	58	43	76	
PAH													
Naphthalene	mg/kg	0.5	---	---	NL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Anthracene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Pyrene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)anthracene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chrysene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(b)fluoranthene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	mg/kg	0.5	3	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Dibenzo(a,h)anthracene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(g,h,i)perylene	mg/kg	0.5	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Sum of polycyclic aromatic hydrocarbons	mg/kg	0.5	300	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene TEQ (zero)	mg/kg	0.5	3	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene TEQ (half LOR)	mg/kg	0.5	3	---	---	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
Benzo(a)pyrene TEQ (LOR)	mg/kg	0.5	3	---	---	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
TPH Fractions													
C6 - C9 Fraction	mg/kg	10	---	---	---	<10	<10	<10	<10	<10	<10	<10	
C10 - C14 Fraction	mg/kg	50	---	---	---	<50	<50	<50	<50	<50	<50	<50	
C15 - C28 Fraction	mg/kg	100	---	---	---	<100	<100	<100	<100	<100	<100	<100	
C29 - C36 Fraction	mg/kg	100	---	---	---	<100	<100	<100	<100	<100	<100	<100	
C10 - C36 Fraction (sum)	mg/kg	50	---	---	---	<50	<50	<50	<50	<50	<50	<50	
TRI - NEPM 2013 Fractions													
C6 - C10 Fraction	mg/kg	10	---	---	---	<10	<10	<10	<10	<10	<10	<10	
C6 - C10 Fraction minus BTEX (F1)	mg/kg	10	---	---	NL	<10	<10	<10	<10	<10	<10	<10	
>C10 - C16 Fraction	mg/kg	50	---	---	---	<50	<50	<50	<50	<50	<50	<50	
>C16 - C34 Fraction	mg/kg	100	---	---	---	<100	<100	<100	<100	<100	<100	<100	
>C34 - C40 Fraction	mg/kg	100	---	---	---	<100	<100	<100	<100	<100	<100	<100	
>C10 - C40 Fraction (sum)	mg/kg	50	---	---	---	<50	<50	<50	<50	<50	<50	<50	
>C10 - C16 Fraction minus Naphthalene (F2)	mg/kg	50	---	---	NL	<50	<50	<50	<50	<50	<50	<50	

Notes:

LOR: Limit Of Reporting

HIL C: Health Investigation Level for open space / recreational land use scenario "C" (ASC NEPM, 2013)

HSL C: Health Screening Level for open space / recreational land use scenario "C" (ASC NEPM, 2013)

# denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.

\* denotes loose fibres of relevant asbestos types detected in soil/dust.

\*\*No criteria for loose fibres within soil (only friable or asbestos fines which must be gravimetrically analysed)

Job number: 121070  
Location: Mimosa Park, 22 Box Road, Casula NSW  
Client: Liverpool City Council



Table B - Summary results table - Land use A

Field ID	TP1_0.3	TP3_0.4	TP5_0.2	TP6_0.1	TP7_0.2	TP8_0.15	TP10_0.05
Lab Report Number	ES2133888	ES2133888	ES2133888	ES2133888	ES2133888	ES2133888	ES2133888
Date	17 Sep 2021	17 Sep 2021	17 Sep 2021	17 Sep 2021	17 Sep 2021	17 Sep 2021	17 Sep 2021
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil	NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m	NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space	NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil	NEPM 2013 Table 1A(1) HILs Res A Soil			
Asbestos s	Unit	EQL					
Presence/ absence	Yes/No	---					
Metals							
Arsenic	mg/kg	5	100	100	6	<5	<5
Cadmium	mg/kg	1		20	<1	<1	<1
Chromium (III+VI)	mg/kg	2		17	11	13	15
Copper	mg/kg	5		30	36	37	33
Lead	mg/kg	5		300	20	18	13
Mercury	mg/kg	0.1		40	<0.1	<0.1	<0.1
Nickel	mg/kg	2		400	11	15	18
Zinc	mg/kg	5		7,400	51	70	73
BTEX							
Benzene	mg/kg	0.2	0.7	65	<0.2	<0.2	<0.2
Toluene	mg/kg	0.5	480	105	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	0.5		125	<0.5	<0.5	<0.5
Xylene (m & p)	mg/kg	0.5			<0.5	<0.5	<0.5
Xylene (o)	mg/kg	0.5			<0.5	<0.5	<0.5
Xylene Total	mg/kg	0.5	110	45	<0.5	<0.5	<0.5
Total BTEX	mg/kg	0.2			<0.2	<0.2	<0.2
TRH							
C6-C10 Fraction (F1)	mg/kg	10	800		<10	<10	<10
C6-C10 (F1 minus BTEX)	mg/kg	10	50	180	<10	<10	<10
>C10-C16 Fraction (F2)	mg/kg	50	1,000	120	<50	<50	<50
>C10-C16 Fraction (F2 minus Naphthalene)	mg/kg	50	280	120	<50	<50	<50
>C16-C34 Fraction (F3)	mg/kg	100	3,500	1,300	<100	<100	<100
>C34-C40 Fraction (F4)	mg/kg	100	10,000	5,600	<100	<100	<100
>C10-C40 Fraction (Sum)	mg/kg	50			<50	<50	<50
PAH							
Acenaphthene	mg/kg	0.5			<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5			<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5			<0.5	<0.5	<0.5
Benzo(a)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5		0.7	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5			<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5			<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5			<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5			<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5			<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5			<0.5	<0.5	<0.5
Naphthalene	mg/kg	0.5	5	170	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5			<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5			<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.5		3	0.6	0.6	0.6
Benzo(a)pyrene TEQ (LOR)	mg/kg	0.5		3	1.2	1.2	1.2
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	0.5		3	<0.5	<0.5	<0.5
PAHs (Sum of total)	mg/kg	0.5		300	<0.5	<0.5	<0.5

Environmental Standards  
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil  
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay  
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil  
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

Notes:  
BTEX: Benzene, Toluene, Ethylbenzene, Xylene  
TPH: Total Petroleum Hydrocarbons  
TRH: Total Recoverable Hydrocarbons  
NEPM: National Environmental Protection Measures  
EQL: Estimated Quantitation Limit



## APPENDIX I: LABORATORY TRANSCRIPTS AND CHAIN-OF-CUSTODY DOCUMENTATION

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## QA/QC Compliance Assessment to assist with Quality Review

Work Order : **ES2133888**

Amendment : **1**

Page : 1 of 5

Client : **ENVIRONMENTAL EARTH SCIENCES**  
 Contact : **LACHLAN DESAILLY**  
 Project : **121070**  
 Site : **BOX RD, CASULA**  
 Sampler : **KARIN AZZAM**  
 Order number : **----**

Laboratory : **Environmental Division Sydney**  
 Telephone : **+61 2 8784 8555**  
 Date Samples Received : **17-Sep-2021**  
 Issue Date : **06-Oct-2021**  
 No. of samples received : **11**  
 No. of samples analysed : **8**

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

### Summary of Outliers

#### Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO** Method Blank value outliers occur.
- **NO** Duplicate outliers occur.
- **NO** Laboratory Control outliers occur.
- **NO** Matrix Spike outliers occur.
- For all regular sample matrices, **NO** surrogate recovery outliers occur.

#### Outliers : Analysis Holding Time Compliance

- **NO** Analysis Holding Time Outliers exist.

#### Outliers : Frequency of Quality Control Samples

- **NO** Quality Control Sample Frequency Outliers exist.



Page : 2 of 5  
 Work Order : ES213388 Amendment 1  
 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

### Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results. This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein. Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters. Holding times for **VOC in soils** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: \* = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation		Evaluation	Analysis			
Container / Client Sample ID(s)			Date extracted	Due for extraction		Date analysed	Due for analysis		
EA055: Moisture Content (Dried @ 105-110°C)									
Soil Glass Jar - Unpreserved (EA055)		TP3_0.4, TP6_0.1, TP8_0.15, TP10_0.05	17-Sep-2021	----	----	22-Sep-2021	01-Oct-2021	✓	
Soil Glass Jar - Unpreserved (EA055)			17-Sep-2021	----	----	30-Sep-2021	01-Oct-2021	✓	
EG005(ED093)T: Total Metals by ICP-AES									
Soil Glass Jar - Unpreserved (EG005T)			17-Sep-2021	05-Oct-2021	16-Mar-2022	✓	05-Oct-2021	16-Mar-2022	✓
Soil Glass Jar - Unpreserved (EG005T)		TP3_0.4, TP6_0.1, TP7_0.2, TP8_0.15, TP10_0.05	17-Sep-2021	23-Sep-2021	16-Mar-2022	✓	23-Sep-2021	16-Mar-2022	✓
EG035T: Total Recoverable Mercury by FIMS									
Soil Glass Jar - Unpreserved (EG035T)			17-Sep-2021	05-Oct-2021	15-Oct-2021	✓	05-Oct-2021	15-Oct-2021	✓
Soil Glass Jar - Unpreserved (EG035T)			17-Sep-2021	23-Sep-2021	15-Oct-2021	✓	24-Sep-2021	15-Oct-2021	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Soil Glass Jar - Unpreserved (EP075(SIM))		17-Sep-2021	01-Oct-2021	01-Oct-2021	✓	01-Oct-2021	10-Nov-2021	✓	
Soil Glass Jar - Unpreserved (EP075(SIM))		TP3_0.4, TP6_0.1, TP7_0.2, TP8_0.15, TP10_0.05	17-Sep-2021	22-Sep-2021	01-Oct-2021	✓	23-Sep-2021	01-Nov-2021	✓



Page : 3 of 5  
 Work Order : ES2133888 Amendment 1  
 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

Matrix: **SOIL**  
 Evaluation: \* = Holding time breach ; ✓ = Within holding time.

Method		Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP071)	FD1	17-Sep-2021	01-Oct-2021	✓	01-Oct-2021	10-Nov-2021	✓
Soil Glass Jar - Unpreserved (EP080)	TP3_0.4, TP6_0.1, TP8_0.15, TP10_0.05	17-Sep-2021	21-Sep-2021	✓	22-Sep-2021	01-Oct-2021	✓
Soil Glass Jar - Unpreserved (EP071)	TP3_0.4, TP6_0.1, TP8_0.15, TP10_0.05	17-Sep-2021	22-Sep-2021	✓	22-Sep-2021	01-Nov-2021	✓
Soil Glass Jar - Unpreserved (EP080)	FD1	17-Sep-2021	30-Sep-2021	✓	30-Sep-2021	01-Oct-2021	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP071)	FD1	17-Sep-2021	01-Oct-2021	✓	01-Oct-2021	10-Nov-2021	✓
Soil Glass Jar - Unpreserved (EP080)	TP3_0.4, TP6_0.1, TP8_0.15, TP10_0.05	17-Sep-2021	21-Sep-2021	✓	22-Sep-2021	01-Oct-2021	✓
Soil Glass Jar - Unpreserved (EP071)	TP3_0.4, TP6_0.1, TP8_0.15, TP10_0.05	17-Sep-2021	22-Sep-2021	✓	22-Sep-2021	01-Nov-2021	✓
Soil Glass Jar - Unpreserved (EP080)	FD1	17-Sep-2021	30-Sep-2021	✓	30-Sep-2021	01-Oct-2021	✓
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)	TP3_0.4, TP6_0.1, TP8_0.15, TP10_0.05	17-Sep-2021	21-Sep-2021	✓	22-Sep-2021	01-Oct-2021	✓
Soil Glass Jar - Unpreserved (EP080)	FD1	17-Sep-2021	30-Sep-2021	✓	30-Sep-2021	01-Oct-2021	✓



Page : 4 of 5  
 Work Order : ES2133888 Amendment 1  
 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

### Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: \* = Quality Control frequency not within specification : ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods		QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)						
Moisture Content	EA055	4	33	12.12	10.00	✓
	EP075(SIM)	3	19	15.79	10.00	✓
	EG035T	4	39	10.26	10.00	✓
	EG005T	4	40	10.00	10.00	✓
	EP071	3	24	12.50	10.00	✓
TRH - Semivolatile Fraction						
TRH Volatiles/BTEX		3	25	12.00	10.00	✓
Laboratory Control Samples (LCS)						
PAH/Phenols (SIM)	EP075(SIM)	2	19	10.53	5.00	✓
	EG035T	2	39	5.13	5.00	✓
	EG005T	2	40	5.00	5.00	✓
	EP071	2	24	8.33	5.00	✓
	EP080	2	25	8.00	5.00	✓
Method Blanks (MB)						
PAH/Phenols (SIM)	EP075(SIM)	2	19	10.53	5.00	✓
	EG035T	2	39	5.13	5.00	✓
	EG005T	2	40	5.00	5.00	✓
	EP071	2	24	8.33	5.00	✓
	EP080	2	25	8.00	5.00	✓
Matrix Spikes (MS)						
PAH/Phenols (SIM)	EP075(SIM)	2	19	10.53	5.00	✓
	EG035T	2	39	5.13	5.00	✓
	EG005T	2	40	5.00	5.00	✓
	EP071	2	24	8.33	5.00	✓
	EP080	2	25	8.00	5.00	✓
TRH - Semivolatile Fraction						
TRH Volatiles/BTEX						



Page : 5 of 5  
 Work Order : ES2133888 Amendment 1  
 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

### Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120: USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl <sub>2</sub> ) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl <sub>2</sub> which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015. Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap. Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion - 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na <sub>2</sub> SO <sub>4</sub> and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.



# CHAIN OF CUSTODY - ANALYSIS REQUEST FORM

Project Manager: LD

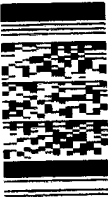
Sampler: KA

Job No: 121070  
Site Location: Box Rd, Casula

Laboratory: ALS  
Sheet: 1 of 1

No. of samples	Sample ID/Depth	Anticipated Result (PID)/EC reading	Date sampled	Time sampled	Soil	Water	Sediment	Analysis Required	Sample-specific instructions/ notes
1	TP1-0.3		7/9/21		X		X		
2	TP3-0.4				X		X		
3	TP5-0.2				X		X		
4	TP6-0.1				X		X		
5	TP7-0.2				X		X		
6	TP8-0.15				X		X		
7	TP10-0.05				X		X		
8	FD1				X		X		
9	TP1-0.3				X		X		
10	TP6-0.5				X		X		
11	TP5-0.5				X		X		
TOTAL									

Environmental Division  
Sydney  
Work Order Reference  
**ES2133888**



Telephone - 61-2-9794 9551

Telephone : + 61-2-8784 8554



**Environmental Division**  
**Sydney**  
Work Order Reference  
**ES2133888**

**Turn Around (circle):**  
~~NORMAL~~ / 3 DAYS / 48 HRS / 24 HRS (confirm with lab in advance if quick turn-around is required)

Comments/ Instructions:

Lab Quotation No. (if applicable) :

Send report to (email address) : kazian@csisgroup.com

Cc: report to (email address) : ~~XXXXXXXXXX~~ details@acesigroup.com

Cc: invoice to (email address): [accounts@eesigroup.com](mailto:accounts@eesigroup.com)

**Sent off Site/Office by:**

Name Karin Azam

Signature

Signature \_\_\_\_\_

Date \_\_\_\_\_

Date 1/7/21

Time

Time  
2 PM

Receiving Lab:

5/28/16

8/25

17/9/12

1500260

Phone: (02) 9922 1777  
Fax: (02) 9922 1010  
PO Box: 380, North Sydney NSW 2059  
Email: [eesNSW@eesgroup.com](mailto:eesNSW@eesgroup.com)



**ENVIRONMENTAL EARTH  
SCIENCES**  
CONTAMINATION RESOLVED



Environmental

## SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : ES2133888  
Amendment : 1

Client : ENVIRONMENTAL EARTH SCIENCES  
Contact : LACHLAN DESAILLY  
Address : PO 380 North Sydney  
2056

Laboratory : Environmental Division Sydney  
Contact : Christopher Redford  
Address : 277-289 Woodpark Road Smithfield  
NSW Australia 2164

E-mail : LDesailly@eesigroup.com  
Telephone : ----  
Facsimile : ----

E-mail : Christopher.Redford@ALSGlobal.com  
Telephone : +61 2 8784 8555  
Facsimile : +61-2-8784 8500

Project : 121070  
Order number : ----  
C-O-C number : ----  
Site : BOX RD, CASULA  
Sampler : KARIN AZZAM

Page : 1 of 2  
Quote number : ES2020ENVEAR0009 (EN/010/20)  
QC Level : NEPM 2013 B3 & ALS QC Standard

## Dates

Date Samples Received : 17-Sep-2021 15:00  
Client Requested Due Date : 07-Oct-2021

Issue Date : 30-Sep-2021  
Scheduled Reporting Date : 07-Oct-2021

## Delivery Details

Mode of Delivery : Pickup  
No. of coolers/boxes : 1  
Receipt Detail :

Security Seal : Not Available  
Temperature : 2.6° C  
No. of samples received / analysed : 11 / 8

## General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Issue Date : 30-Sep-2021  
Page : 2 of 2  
Work Order : ES2133888 Amendment 1  
Client : ENVIRONMENTAL EARTH SCIENCES



### Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS. APHA, USEPA standards

- No sample container / preservation non-compliance exists.

### Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: SOIL

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold No analysis)	SOIL - E- Moisture	SOIL - S- g metals
ES2133888-001	17-Sep-2021 00:00	TP1_0.3		✓	✓
ES2133888-002	17-Sep-2021 00:00	TP3_0.4		✓	✓
ES2133888-003	17-Sep-2021 00:00	TP5_0.2		✓	✓
ES2133888-004	17-Sep-2021 00:00	TP6_0.1		✓	✓
ES2133888-005	17-Sep-2021 00:00	TP7_0.2		✓	✓
ES2133888-006	17-Sep-2021 00:00	TP8_0.15		✓	✓
ES2133888-007	17-Sep-2021 00:00	TP10_0.05		✓	✓
ES2133888-008	17-Sep-2021 00:00	FD1		✓	✓
ES2133888-009	17-Sep-2021 00:00	TP1_0.7	✓		
ES2133888-010	17-Sep-2021 00:00	TP6_0.5	✓		
ES2133888-011	17-Sep-2021 00:00	TP5_0.5	✓		

## Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

### Requested Deliverables

**ACCOUNTS EESI GROUP**

- A4 - AU Tax Invoice (INV)

Email [accounts@eesigroup.com](mailto:accounts@eesigroup.com)

## KARIN AZZAM

- \*AU Certificate of Analysis - NATA (COA)

Email [kazzam@eesigroup.com](mailto:kazzam@eesigroup.com)

- \*AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)

Email kazzam@eesigroup.com

- \*AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)

Email kazzam@eesigroup.com

- A4 - AU Sample Receipt Notification - Environmental HT (SRN)

Email kazzam@eesigroup.com

- Chain of Custody (CoC) (COC)

Email kazzam@eesigroup.com

- EDI Format - ENMRG (ENMRG)

Email kazzam@eesigroup.com

- EDI Format - ESDAT (ESDAT)

Email kazzam@eesigroup.com

**LACHLAN DESAILLY**

- \*AU Certificate of Analysis - NATA (COA)

Email [LDesailly@eesigroup.com](mailto:LDesailly@eesigroup.com)

- \*AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)

Email LDesailly@eesigroup.com

- \*AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)

Email LDesailly@eesigroup.com

- A4 - AU Sample Receipt Notification - Environmental HT (SRN)

Email LDesailly@eesigroup.com

- Chain of Custody (CoC) (COC)

Email LDesailly@eesigroup.com

- EDI Format - ENMRG (ENMRG)

Email LDesailly@eesigroup.com

- EDI Format - ESDAT (ESDAT)

Email LDesailly@eesigroup.com



## CERTIFICATE OF ANALYSIS

Work Order	: ES2133888	Page	: 1 of 9
Amendment	: 1		
Client	: ENVIRONMENTAL EARTH SCIENCES	Laboratory	: Environmental Division Sydney
Contact	: LACHLAN DESAILLY	Contact	: Christopher Redford
Address	: PO 380 North Sydney 2056	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: 121070	Date Samples Received	: 17-Sep-2021 15:00
Order number	: ----	Date Analysis Commenced	: 21-Sep-2021
C-O-C number	: ----	Issue Date	: 06-Oct-2021 12:35
Sampler	: KARIN AZZAM		
Site	: BOX RD, CASULA		
Quote number	: EN/010/20		
No. of samples received	: 11		
No. of samples analysed	: 8		



Accreditation No. 825  
Accredited for compliance with  
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

**Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.**

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW



Page : 2 of 9  
 Work Order : ES2133888 Amendment 1  
 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

### General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

Δ = This result is computed from individual analyte detections at or above the level of reporting

Ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+f) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1,2,3-cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EG005T: Poor precision was obtained for Mn on sample ES2133888 #4. Confirmed by re-digestion and reanalysis.
- Amendment (30/09/2021): This report has been amended and re-released to allow the reporting of additional analytical data as per Lachlan Desailly to sample FD1.



Page : 3 of 9  
 Work Order : ES2133888 Amendment 1  
 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

### Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)		Sample ID		Sampling date / time		TP1_0.3		TP3_0.4		TP5_0.2		TP6_0.1		TP7_0.2	
Compound	CAS Number	LOR	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)															
Moisture Content	---	1.0	%	11.9	11.1	11.5	10.0	13.8							
EG005(ED093)T: Total Metals by ICP-AES															
Arsenic	7440-38-2	5	mg/kg	6	<5	<5	5	<5							
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1							
Chromium	7440-47-3	2	mg/kg	17	11	13	15	14							
Copper	7440-50-8	5	mg/kg	30	36	37	33	30							
Lead	7439-92-1	5	mg/kg	20	18	13	14	16							
Nickel	7440-02-0	2	mg/kg	11	15	18	16	13							
Zinc	7440-66-6	5	mg/kg	51	70	73	73	58							
EG035T: Total Recoverable Mercury by FIMS															
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1							
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons															
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Benz(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Benz(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Benz(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Benz(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
^ Benz(a)pyrene TEQ (zero)	---	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5							
^ Benz(a)pyrene TEQ (half LOR)	---	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6							
^ Benz(a)pyrene TEQ (LOR)	---	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2							
EP080/071: Total Petroleum Hydrocarbons															
C6 - C9 Fraction	---	10	mg/kg	<10	<10	<10	<10	<10							



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 Work Order : ES2133888 Amendment 1  
 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

### Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Compound	CAS Number	LOR	Sampling date / time	Unit	TP1_0.3	TP3_0.4	TP5_0.2	TP6_0.1	TP7_0.2
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C10 - C14 Fraction	---	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	---	100	mg/kg		<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	---	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	---	100	mg/kg		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg		<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	---	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	---	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		88.2	84.8	82.8	85.8	78.0
2-Chlorophenol-D4	93951-73-6	0.5	%		89.1	85.1	83.2	86.1	78.8
2,4,6-Tribromophenol	118-79-6	0.5	%		72.4	64.8	64.8	68.6	61.4
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		99.9	96.5	93.4	95.6	88.1
Anthracene-d10	1719-06-8	0.5	%		100	96.8	94.4	96.6	88.1
4-Terphenyl-d14	1718-51-0	0.5	%		86.5	83.4	81.1	83.2	76.0
EP080S: TPH(V)BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%		109	108	107	108	99.8
Toluene-D8	2037-26-5	0.2	%		80.9	80.8	81.2	81.4	88.5



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 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

### Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Compound	CAS Number	LOR	Sample ID		Unit	Sampling date / time	TP1_0.3	TP3_0.4	TP5_0.2	TP6_0.1	TP7_0.2
EP080S: TPH(V)/BTEX Surrogates - Continued	460-00-4	0.2	%	Result	ES2133888-001	17-Sep-2021 00:00	78.9	78.9	77.9	77.9	80.4
4-Bromofluorobenzene				Result	ES2133888-002	17-Sep-2021 00:00					
				Result	ES2133888-003	17-Sep-2021 00:00					
				Result	ES2133888-004	17-Sep-2021 00:00					
				Result	ES2133888-005	17-Sep-2021 00:00					



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 Work Order : ES2133888 Amendment 1  
 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

### Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sub-Matrix: SOIL (Matrix: SOIL)		Sample ID		TP8_0.15	TP10_0.05	FD1			
		Sampling date / time	Unit						
Compound	CAS Number	LOR		17-Sep-2021 00:00 ES2133888-006	17-Sep-2021 00:00 ES2133888-007	17-Sep-2021 00:00 ES2133888-008			
				Result	Result	Result			
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content		1.0	%	8.2	8.7	9.0			
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5			
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1			
Chromium	7440-47-3	2	mg/kg	12	12	14			
Copper	7440-50-8	5	mg/kg	21	36	41			
Lead	7439-92-1	5	mg/kg	11	14	14			
Nickel	7440-02-0	2	mg/kg	11	18	19			
Zinc	7440-66-6	5	mg/kg	43	76	69			
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1			
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5			
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5			
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5			
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5			
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5			
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5			
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5			
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5			
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5			
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5			
Benzo(b+)-fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	<0.5			
Benz(k)-fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5			
Benz(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5			
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5			
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5			
Benz(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5			
^ Sum of polycyclic aromatic hydrocarbons			0.5	mg/kg	<0.5	<0.5			
^ Benz(a)pyrene TEQ (zero)			0.5	mg/kg	<0.5	<0.5			
^ Benz(a)pyrene TEQ (half LOR)			0.5	mg/kg	<0.5	<0.5			
^ Benz(a)pyrene TEQ (LOR)			0.5	mg/kg	0.6	0.6			
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction			10	mg/kg	<10	<10			



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 Project : 121070

### Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Sample ID	TP8_0.15	TP10_0.05	FD1	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
C10 - C14 Fraction		50	mg/kg		<50	<50	<50	
C15 - C28 Fraction		100	mg/kg		<100	<100	<100	
C29 - C36 Fraction		100	mg/kg		<100	<100	<100	
^ C10 - C36 Fraction (sum)		50	mg/kg		<50	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	
>C10 - C16 Fraction		50	mg/kg		<50	<50	<50	
>C16 - C34 Fraction		100	mg/kg		<100	<100	<100	
>C34 - C40 Fraction		100	mg/kg		<100	<100	<100	
^ >C10 - C40 Fraction (sum)		50	mg/kg		<50	<50	<50	
^ >C10 - C16 Fraction minus Naphthalene (F2)		50	mg/kg		<50	<50	<50	
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	
meta- & para-Xylene	108-38-3 108-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	
^ Sum of BTEX		0.2	mg/kg		<0.2	<0.2	<0.2	
^ Total Xylenes		0.5	mg/kg		<0.5	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%		84.0	80.1	95.2	
2-Chlorophenol-D4	93951-73-6	0.5	%		84.1	79.9	88.8	
2,4,6-Tribromophenol	118-79-6	0.5	%		64.0	61.5	69.8	
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%		94.1	91.2	103	
Anthracene-d10	1719-06-8	0.5	%		95.3	90.7	98.8	
4-Terphenyl-d14	1718-51-0	0.5	%		82.2	78.8	93.4	
EP080S: TPH(V)BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%		111	112	94.3	
Toluene-D8	2037-26-5	0.2	%		81.6	85.0	104	



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Client	:	ENVIRONMENTAL EARTH SCIENCES
Project	:	121070

## Analytical Results

Sub-Matrix: SOIL  
(Matrix: SOIL)

Sub-Matrix: SOIL (Matrix: SOIL)		Sample ID						
Compound	CAS Number	LOR	Sampling date / time		TP8_0.15	TP10_0.05	FD1	
					17-Sep-2021 00:00	17-Sep-2021 00:00	17-Sep-2021 00:00	
					ES2133888-006	ES2133888-007	ES2133888-008	
					Result	Result	Result	
EP080S: TPH(V)/BTEX Surrogates - Continued								
	460-00-4	0.2	%		77.8	79.7	90.6	



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### Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2,4,6-Tribromophenol	118-79-6	40	138
<b>EP075(SIM)T: PAH Surrogates</b>			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
<b>EP080S: TPH(V)/BTEX Surrogates</b>			
1,2-Dichloroethane-D4	17060-07-0	73	133
Toluene-D8	2037-26-5	74	132
4-Bromofluorobenzene	460-00-4	72	130



## QUALITY CONTROL REPORT

Work Order : **ES2133888**

Amendment : **1**

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Client : **ENVIRONMENTAL EARTH SCIENCES**

Contact : **LACHLAN DESAILLY**

Address : **PO 380 North Sydney**

2056

Telephone : -----

Project : **121070**

Order number : -----

C-O-C number : -----

Sampler : **KARIN AZZAM**

Site : **BOX RD, CASULA**

Quote number : **EN/010/20**

No. of samples received : **11**

No. of samples analysed : **8**

Laboratory : **Environmental Division Sydney**

Contact : **Christopher Redford**

Address : **277-289 Woodpark Road Smithfield NSW Australia 2164**

Telephone : **+61 2 8784 8555**

Date Samples Received : **17-Sep-2021**

Date Analysis Commenced : **21-Sep-2021**

Issue Date : **06-Oct-2021**



Accreditation No. 825  
Accredited for compliance with  
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW



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### General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :

Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot

CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

RPD = Relative Percentage Difference

# = Indicates failed QC

### Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

Sub-Matrix: <b>SOIL</b>			Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Sample ID	Method/Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 3917309)</b>									
ES2133703-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	4	6	44.6	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.0	No Limit
ES2133888-004	TP6_0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	15	15	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	16	16	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	33	32	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	14	34	79.3	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	73	68	6.4	0% - 50%
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 3937149)</b>									
ES2133888-008	FD1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	14	15	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	19	24	27.1	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	41	44	7.1	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	14	17	17.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	69	91	27.2	0% - 50%
ES2134449-028	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	21	31	38.1	0% - 50%



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Sub-Matrix: <b>SOIL</b>		Method: <b>Compound</b>		Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Sample ID	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)		
<b>EG005(ED093): Total Metals by ICP-AES (QC Lot: 3937149) - continued</b>										
ES2134449-028	Anonymous	EG005T: Nickel	7440-02-0	2	mg/kg	4	4	0.0	No Limit	
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	5	0.0	No Limit	
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit	
		EG005T: Lead	7439-92-1	5	mg/kg	11	12	0.0	No Limit	
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.0	No Limit	
<b>EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3917313)</b>										
ES2133795-002	Anonymous	EA055: Moisture Content	----	0.1	%	46.6	46.8	0.5	0% - 20%	
ES2133888-007	TP10_0.05	EA055: Moisture Content	----	0.1	%	8.7	9.1	5.4	No Limit	
<b>EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3932940)</b>										
ES2133888-008	FD1	EA055: Moisture Content	----	0.1	%	9.0	8.8	2.2	No Limit	
ES2135379-001	Anonymous	EA055: Moisture Content	----	0.1	%	14.8	14.9	1.0	0% - 50%	
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3917310)</b>										
ES2133703-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
ES2133888-004	TP6_0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3937150)</b>										
ES2133888-008	FD1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
ES2134449-028	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit	
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3914286)</b>										
ES2133888-004	TP6_0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(b+h)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
			205-82-3							
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Dibenzo(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		ES2133872-001	Anonymous	EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0
		EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	



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Sub-Matrix: <b>SOIL</b>		Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Sample ID	Method/Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)	
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3914286) - continued</b>										
Anonymous										
ES2133872-001		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	0.6	0.7	0.0	No Limit	
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	0.7	0.7	0.0	No Limit	
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(k)fluoranthene	205-82-3							
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----							
EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit			
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3933193)</b>										
ES2133888-008	FD1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(k)fluoranthene	205-82-3							
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----									
EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit			



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Sub-Matrix: <b>SOIL</b>		Method: Compound			Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3913161)</b>									
ES2133666-038	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2133888-003	TP5_0.2	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3914287)</b>									
ES2133888-004	TP6_0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2133872-001	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3932845)</b>									
ES2135298-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3933194)</b>									
ES2133888-008	FD1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3913161)</b>									
ES2133666-038	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2133888-003	TP5_0.2	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3914287)</b>									
ES2133888-004	TP6_0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2133872-001	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3932845)</b>									
ES2135298-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3933194)</b>									
ES2133888-008	FD1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
<b>EP080: BTEXN (QC Lot: 3913161)</b>									
ES2133666-038	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		106-42-3	106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit



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Sub-Matrix: <b>SOIL</b>			Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Sample ID	Method/Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080: BTEXN (QC Lot: 3913161) - continued									
ES2133888-003	TP5_0.2	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080: Naphthalene		91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
EP080: BTEXN (QC Lot: 3932845)									
ES2135298-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080: Naphthalene		91-20-3	1	mg/kg	<1	<1	0.0	No Limit	



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### Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

Sub-Matrix: SOIL		Method/Compound		CAS Number	LOR	Unit	Method Blank (MB) Report		Laboratory Control Spike (LCS) Report			
							Result	Spike Concentration	Spike Recovery (%)		Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3917309)												
EG005T: Arsenic		7440-38-2	5	mg/kg	<5	121.1 mg/kg	95.4	88.0	113			
EG005T: Cadmium		7440-43-9	1	mg/kg	<1	0.74 mg/kg	93.1	70.0	130			
EG005T: Chromium		7440-47-3	2	mg/kg	<2	19.6 mg/kg	102	68.0	132			
EG005T: Copper		7440-50-8	5	mg/kg	<5	52.9 mg/kg	107	89.0	111			
EG005T: Lead		7439-92-1	5	mg/kg	<5	60.8 mg/kg	96.6	82.0	119			
EG005T: Nickel		7440-02-0	2	mg/kg	<2	15.3 mg/kg	93.1	80.0	120			
EG005T: Zinc		7440-66-6	5	mg/kg	<5	139.3 mg/kg	90.6	66.0	133			
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3937149)												
EG005T: Arsenic		7440-38-2	5	mg/kg	<5	121.1 mg/kg	101	88.0	113			
EG005T: Cadmium		7440-43-9	1	mg/kg	<1	0.74 mg/kg	84.0	70.0	130			
EG005T: Chromium		7440-47-3	2	mg/kg	<2	19.6 mg/kg	115	68.0	132			
EG005T: Copper		7440-50-8	5	mg/kg	<5	52.9 mg/kg	107	89.0	111			
EG005T: Lead		7439-92-1	5	mg/kg	<5	60.8 mg/kg	94.9	82.0	119			
EG005T: Nickel		7440-02-0	2	mg/kg	<2	15.3 mg/kg	106	80.0	120			
EG005T: Zinc		7440-66-6	5	mg/kg	<5	139.3 mg/kg	88.8	66.0	133			
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3917310)												
EG035T: Mercury		7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	113	70.0	125			
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3937150)												
EG035T: Mercury		7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	97.1	70.0	125			
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3914286)												
EP075(SIM): Naphthalene		91-20-3	0.5	mg/kg	<0.5	6 mg/kg	114	77.0	125			
EP075(SIM): Acenaphthylene		208-96-8	0.5	mg/kg	<0.5	6 mg/kg	108	72.0	124			
EP075(SIM): Acenaphthene		83-32-9	0.5	mg/kg	<0.5	6 mg/kg	119	73.0	127			
EP075(SIM): Fluorene		86-73-7	0.5	mg/kg	<0.5	6 mg/kg	113	72.0	126			
EP075(SIM): Phenanthrene		85-01-8	0.5	mg/kg	<0.5	6 mg/kg	111	75.0	127			
EP075(SIM): Anthracene		120-12-7	0.5	mg/kg	<0.5	6 mg/kg	114	77.0	127			
EP075(SIM): Fluoranthene		206-44-0	0.5	mg/kg	<0.5	6 mg/kg	110	73.0	127			
EP075(SIM): Pyrene		129-00-0	0.5	mg/kg	<0.5	6 mg/kg	111	74.0	128			
EP075(SIM): Benz(a)anthracene		56-55-3	0.5	mg/kg	<0.5	6 mg/kg	90.0	69.0	123			
EP075(SIM): Chrysene		218-01-9	0.5	mg/kg	<0.5	6 mg/kg	105	75.0	127			
EP075(SIM): Benzo(b+h)fluoranthene		205-99-2	0.5	mg/kg	<0.5	6 mg/kg	87.9	68.0	116			
EP075(SIM): Benzo(k)fluoranthene		207-08-9	0.5	mg/kg	<0.5	6 mg/kg	104	74.0	126			
EP075(SIM): Benzo(a)pyrene		50-32-8	0.5	mg/kg	<0.5	6 mg/kg	104	70.0	126			



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## Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report		
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)
						LCS	Low High
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3914286) - continued</b>							
EP075(SIM): Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	97.0	61.0 121
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	100	62.0 118
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	94.6	63.0 121
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3933193)</b>							
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	119	77.0 125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	109	72.0 124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	112	73.0 127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	109	72.0 126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	103	75.0 127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	104	77.0 127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	99.4	73.0 127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	100	74.0 128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	97.7	69.0 123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	110	75.0 127
EP075(SIM): Benzo(b,j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	6 mg/kg	93.8	68.0 116
EP075(SIM): Benzo(k)fluoranthene	205-82-3	0.5	mg/kg	<0.5	6 mg/kg	108	74.0 126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	104	70.0 126
EP075(SIM): Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	96.9	61.0 121
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	102	62.0 118
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	96.8	63.0 121
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 3913161)</b>							
EP080: C6 - C9 Fraction	---	10	mg/kg	<10	26 mg/kg	96.5	68.4 128
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 3914287)</b>							
EP071: C10 - C14 Fraction	---	50	mg/kg	<50	300 mg/kg	89.7	75.0 129
EP071: C15 - C28 Fraction	---	100	mg/kg	<100	450 mg/kg	90.8	77.0 131
EP071: C29 - C36 Fraction	---	100	mg/kg	<100	300 mg/kg	89.8	71.0 129
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 3932845)</b>							
EP080: C6 - C9 Fraction	---	10	mg/kg	<10	26 mg/kg	106	68.4 128
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 3933194)</b>							
EP071: C10 - C14 Fraction	---	50	mg/kg	<50	300 mg/kg	103	75.0 129
EP071: C15 - C28 Fraction	---	100	mg/kg	<100	450 mg/kg	101	77.0 131
EP071: C29 - C36 Fraction	---	100	mg/kg	<100	300 mg/kg	102	71.0 129
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3913161)</b>							
EP080: C6 - C10 Fraction	C6, C10	10	mg/kg	<10	31 mg/kg	97.1	68.4 128
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3914287)</b>							
EP071: >C10 - C16 Fraction	---	50	mg/kg	<50	375 mg/kg	91.8	77.0 125
EP071: >C16 - C34 Fraction	---	100	mg/kg	<100	525 mg/kg	89.0	74.0 138



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Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3914287) - continued							
EP071: >C34 - C40 Fraction	---	100	mg/kg	<100	225 mg/kg	85.9	63.0 131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3932845)							
EP080: C6 - C10 Fraction	C6, C10	10	mg/kg	<10	31 mg/kg	107	68.4 128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3933194)							
EP071: >C10 - C16 Fraction	---	50	mg/kg	<50	375 mg/kg	106	77.0 125
EP071: >C16 - C34 Fraction	---	100	mg/kg	<100	525 mg/kg	99.5	74.0 138
EP071: >C34 - C40 Fraction	---	100	mg/kg	<100	225 mg/kg	100	63.0 131
EP080: BTEXN (QCLot: 3913161)							
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	95.6	62.0 116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	98.2	67.0 121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	96.3	65.0 117
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	94.1	66.0 118
	106-42-3						
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	92.8	68.0 120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	106	63.0 119
EP080: BTEXN (QCLot: 3932845)							
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	105	62.0 116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	100	67.0 121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	98.2	65.0 117
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	94.7	66.0 118
	106-42-3						
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	97.0	68.0 120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	88.5	63.0 119

### Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID		Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report					
					Spike		Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	MS	Low	High		
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3917309)										
ES2133703-001	Anonymous		EG005T: Arsenic	7440-38-2	50 mg/kg	85.4	70.0	130		
			EG005T: Cadmium	7440-43-9	50 mg/kg	91.2	70.0	130		
			EG005T: Chromium	7440-47-3	50 mg/kg	91.0	68.0	132		
			EG005T: Copper	7440-50-8	250 mg/kg	90.4	70.0	130		
			EG005T: Lead	7439-92-1	250 mg/kg	93.6	70.0	130		
			EG005T: Nickel	7440-02-0	50 mg/kg	87.3	70.0	130		



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 Work Order : ES2133888 Amendment 1  
 Client : ENVIRONMENTAL EARTH SCIENCES  
 Project : 121070

Sub-Matrix: **soil**

Sub-Matrix: <b>SOIL</b>		Matrix Spike (MS) Report				
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Spike	Acceptable Limits (%)	
				Concentration	MS	Low
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3917309) - continued						
ES2133703-001	Anonymous	EG005T: Zinc	7440-66-6	250 mg/kg	90.5	66.0 133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3937149)						
ES2133888-008	FD1	EG005T: Arsenic	7440-38-2	50 mg/kg	94.9	70.0 130
		EG005T: Cadmium	7440-43-9	50 mg/kg	92.2	70.0 130
		EG005T: Chromium	7440-47-3	50 mg/kg	98.0	68.0 132
		EG005T: Copper	7440-50-8	250 mg/kg	100	70.0 130
		EG005T: Lead	7439-92-1	250 mg/kg	92.9	70.0 130
		EG005T: Nickel	7440-02-0	50 mg/kg	95.1	70.0 130
		EG005T: Zinc	7440-66-6	250 mg/kg	85.2	66.0 133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3917310)						
ES2133703-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	97.6	70.0 130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3937150)						
ES2133888-008	FD1	EG035T: Mercury	7439-97-6	5 mg/kg	110	70.0 130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3914286)						
ES2133872-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	106	70.0 130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	111	70.0 130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3933193)						
ES2133888-008	FD1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	102	70.0 130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	116	70.0 130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3913161)						
ES2133666-038	Anonymous	EP080: C6 - C9 Fraction	---	32.5 mg/kg	102	70.0 130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3914287)						
ES2133872-001	Anonymous	EP071: C10 - C14 Fraction	---	480 mg/kg	106	73.0 137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	110	53.0 131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	114	52.0 132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3932845)						
ES2135298-001	Anonymous	EP080: C6 - C9 Fraction	---	32.5 mg/kg	99.7	70.0 130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3933194)						
ES2133888-008	FD1	EP071: C10 - C14 Fraction	----	480 mg/kg	111	73.0 137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	100	53.0 131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	111	52.0 132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3913161)						
ES2133666-038	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	104	70.0 130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3914287)						
ES2133872-001	Anonymous	EP071: >C10 - C16 Fraction	----	860 mg/kg	106	73.0 137



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 Project : 121070

Sub-Matrix: **soil**

Sub-Matrix: <b>SOIL</b>		Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
						Spike Concentration	MS	SpikeRecovery(%)	Acceptable Limits (%) LowHigh
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3914287) - continued									
ES2133872-001	Anonymous	EP071: >C16 - C34 Fraction	----	4320 mg/kg	114		53.0	131	
		EP071: >C34 - C40 Fraction	----	890 mg/kg	95.2		52.0	132	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3932845)									
ES2135298-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	99.2		70.0	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3933194)									
ES2133888-008	FD1	EP071: >C10 - C16 Fraction	----	860 mg/kg	98.4		73.0	137	
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	105		53.0	131	
		EP071: >C34 - C40 Fraction	----	890 mg/kg	103		52.0	132	
EP080: BTEXN (QCLot: 3913161)									
ES2133666-038	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	97.3		70.0	130	
		EP080: Toluene	108-88-3	2.5 mg/kg	91.4		70.0	130	
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	80.5		70.0	130	
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	93.5		70.0	130	
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	93.5		70.0	130	
		EP080: Naphthalene	91-20-3	2.5 mg/kg	83.5		70.0	130	
EP080: BTEXN (QCLot: 3932845)									
ES2135298-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	90.9		70.0	130	
		EP080: Toluene	108-88-3	2.5 mg/kg	89.7		70.0	130	
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	91.2		70.0	130	
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	91.1		70.0	130	
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	92.4		70.0	130	
		EP080: Naphthalene	91-20-3	2.5 mg/kg	84.8		70.0	130	



## AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET96265 / 99445 / 1 - 7  
Your ref : 121070 – Box Road Casula  
**NATA Accreditation No: 14484**

22 September 2021

Environmental Earth Sciences  
PO Box 380  
North Sydney NSW 2059



**Attn: Ms Karin Azzam**

**Accredited for compliance with ISO/IEC 17025 - Testing.**

Dear Karin

### Asbestos Identification

This report presents the results of seven samples, forwarded by Environmental Earth Sciences on 21 September 2021, for analysis for asbestos.

**1.Introduction:**Seven samples forwarded were examined and analysed for the presence of asbestos on 22 September 2021.

**2. Methods :** The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method (**Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction**) (**Qualitative Analysis only**).

The report also provides approximate weights and percentages, categories of asbestos forms appearing in the sample, such as **AF**(Asbestos Fines), **FA**(Friable Asbestos) and **ACM** (Asbestos Containing Material), also satisfying the requirements of the WA/ NEPM Guidelines).

**3. Results :** **Sample No. 1. ASET96265 / 99445 / 1. 121070 - TP1\_0.3.**

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 598.0g.

The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement, wood chips, plant matter.

**No asbestos detected.**

**Sample No. 2. ASET96265 / 99445 / 2. 121070 - TP3\_0.4.**

Approx dimensions 10.0 cm x 10.0 cm x 6.9 cm

Approximate total dry weight of soil = 693.0g.

The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement and plant matter.

**No asbestos detected.**

**Sample No. 3. ASET96265 / 99445 / 3. 121070 - TP5\_0.2.**

Approx dimensions 10.0 cm x 10.0 cm x 7.4 cm

Approximate total dry weight of soil = 735.0g.

The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement and plant matter.

**No asbestos detected.**

SUITE 710 / 90 GEORGE STREET, HORNSBY NSW 2077 – P.O. BOX 1644 HORNSBY WESTFIELD NSW 1635

PHONE: (02) 99872183 FAX: (02)99872151 EMAIL: [info@ausset.com.au](mailto:info@ausset.com.au) WEBSITE: [www.Ausset.com.au](http://www.Ausset.com.au)

OCCUPATIONAL HEALTH & SAFETY STUDIES • INDOOR AIR QUALITY SURVEYS • HAZARDOUS MATERIAL SURVEYS • RADIATION SURVEYS • ASBESTOS SURVEYS  
ASBESTOS DETECTION & IDENTIFICATION • REPAIR & CALIBRATION OF SCIENTIFIC EQUIPMENT • AIRBORNE FIBRE & SILICA MONITORING

**Sample No. 4. ASET96265 / 99445 / 4. 121070 - TP6\_0.1.**

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 652.0g.

The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, slag, wood chips and plant matter.

**No asbestos detected.****Sample No. 5. ASET96265 / 99445 / 5. 121070 - TP7\_0.2.**

Approx dimensions 10.0 cm x 10.0 cm x 7.3 cm

Approximate total dry weight of soil = 725.0g.

The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of cement, wood chips and plant matter.

**No asbestos detected.****Sample No. 6. ASET96265 / 99445 / 6. 121070 - TP8\_0.15.**

Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm

Approximate total dry weight of soil = 765.0g.

The sample consisted of a mixture of clayish sandy soil, stones, fragments of brick, cement, wood chips and plant matter.

**No asbestos detected.****Sample No. 7. ASET96265 / 99445 / 7. 121070 - TP10\_0.05.**

Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm

Approximate total dry weight of soil = 779.0g.

The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, wood chips and plant matter.

**No asbestos detected.**

Reported by,

**Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)**  
**Occupational Hygienist / Approved Identifier.**  
**Approved Signatory**

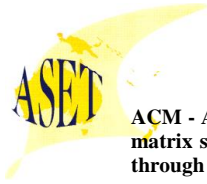


Accredited for compliance with ISO/IEC 17025 - Testing.

*This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites in Western Australia and it also satisfies the requirements of the current NEPM Guidelines. NATA Accreditation does not cover the performance of this service.*

**Disclaimers;**

*The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages if given.*



**ACM - Asbestos Containing Material** - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

**AF** -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

**FA** -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

**^** denotes loose fibres of relevant asbestos types detected in soil/dust.

**\*** denotes asbestos detected in ACM in bonded form.

**#** denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.

*The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by AS4964-2004. Trace / respirable level asbestos will be reported only when detected and trace analysis have been performed on each sample as required by AS4964-2004. When loose asbestos fibres/ fibre bundles are detected and reported that means they are larger handpicked fibres/ fibre bundles, and they do not represent respirable fibres. Dust/soil samples are always subjected to trace analysis except where the amounts involved are extremely minute and trace analysis is not possible to be carried out. When trace analysis is not performed on dust samples it will be indicated in the report that trace analysis has not been carried out due to the volume of the sample being extremely minute.*

*Estimation of asbestos weights involves the use of following assumptions;*

*Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.*

**All samples indicating "No asbestos detected" are assumed to be less than 0.001% for friable AF and FA portions detected and 0.01 % for ACM detected unless the approximate weight is given.**

## CHAIN OF CUSTODY - ANALYSIS REQUEST FORM

CHAIN OF CUSTODY - ANALYSIS REQUEST FORM

Project Manager:	LD	Sampler:	KA
Job No:	121070	Site Location:	Box Rd, Casula
Laboratory:	ASET	Sheet:	1 of 1

Project Manager: LD

Sampler: KA

Site Location: Box Rd, Casula

Sheet: 1 of 1

Sheet: 1 of 1

[illegible]

**Turn Around (circle):**

**NORMAL / 3 DAYS / 48 HRS / 24 HRS** (confirm with lab in advance if quick turn-around is required)

Lab Quotation No. (if applicable):

Comments/ Instructions:

Send report to (email address): [kazzama@esixroyo.com](mailto:kazzama@esixroyo.com)

Cc: report to (email address): [ldesaille@eesigroup.com](mailto:ldesaille@eesigroup.com)

Cc: invoice to (email address): [accounts@eesigroup.com](mailto:accounts@eesigroup.com)

Name \_\_\_\_\_

Name \_\_\_\_\_

Signature \_\_\_\_\_

Date / / Time

Time

Sent off Site/Office by:

Karin Azam

15

21/5/2021 9

9.20 am

Receiving Lab:

100

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1

Receiving Lab:

Kurhan

21/9/21

12

 ENVIRONMENTAL EARTH SCIENCES

SCIENCE  
CONTAMINATION RESOLVED

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## APPENDIX J: UNEXPECTED FINDS PROTOCOL

---



## Unexpected Findings Protocol Form

**Site:**

**Job reference:**

**Client:**

**Personnel Onsite:**

**Date:**

Daily Summary

1. Fill or suspect material encountered during daily activities

\_\_\_\_\_ (if yes complete 2 - 8).

2. Environmental consultant contacted:

3. Record location of foreign material (label occurrences sequentially 1, 2, 3, etc).

Description of material encountered:

4. Asbestos or suspected asbestos containing material present (Yes/No):

5. If No to 4 is there an obvious odour present (Note: Do Not sniff soil) (Yes/No):

6. Visible staining (Yes/No): \_\_\_\_\_

7. Brief written description:

8. Material quarantined (Yes/No):

9. Location of contaminated material: \_\_\_\_\_

10. Attach photographs taken \_\_\_\_\_

**Signature:** \_\_\_\_\_



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PO Box 380 North Sydney, NSW, 2059  
P. 61 2 9922 1777 E. info@eesigroup.com  
www.eesigroup.com

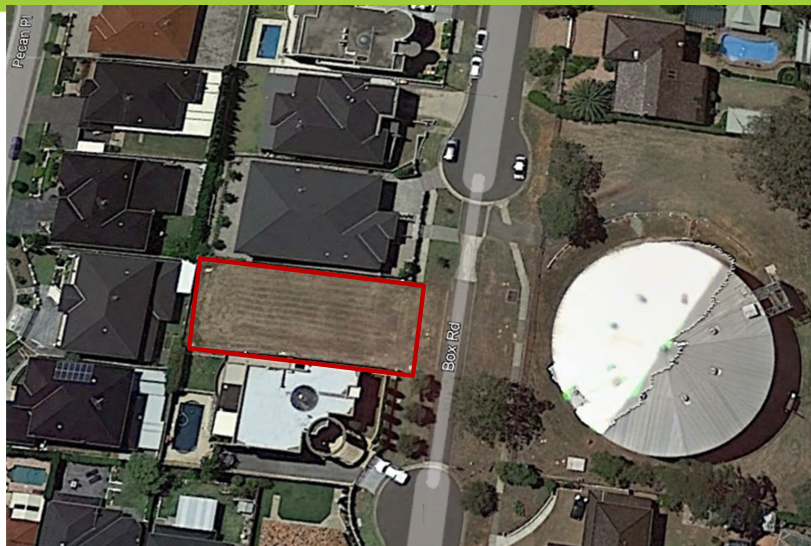




# PROPOSED RECLASSIFICATION OF COMMUNITY LAND AT 22 BOX ROAD, CASULA PUBLIC HEARING AND SUBMISSIONS REPORT

FINAL

11 OCTOBER 2023



LIVERPOOL CITY COUNCIL

PROPOSED RECLASSIFICATION OF  
COMMUNITY LAND AT  
22 BOX ROAD, CASULA

PUBLIC HEARING AND SUBMISSIONS REPORT

FINAL

11 OCTOBER 2023

Parkland Planners

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DIRECTOR: Sandy Hoy

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# 1 INTRODUCTION

## 1.1 Purpose of this report

This report has been prepared under Section 29 of the *Local Government Act 1993* to report to Liverpool City Council on the public submissions made before, at and after the public hearing on Thursday 21 September 2023 regarding the proposed reclassification of 22 Box Road in Casula from community land to operational land.

The purpose of the reclassification of land is to facilitate rezoning and sale of the land for development as a low density residential dwelling.

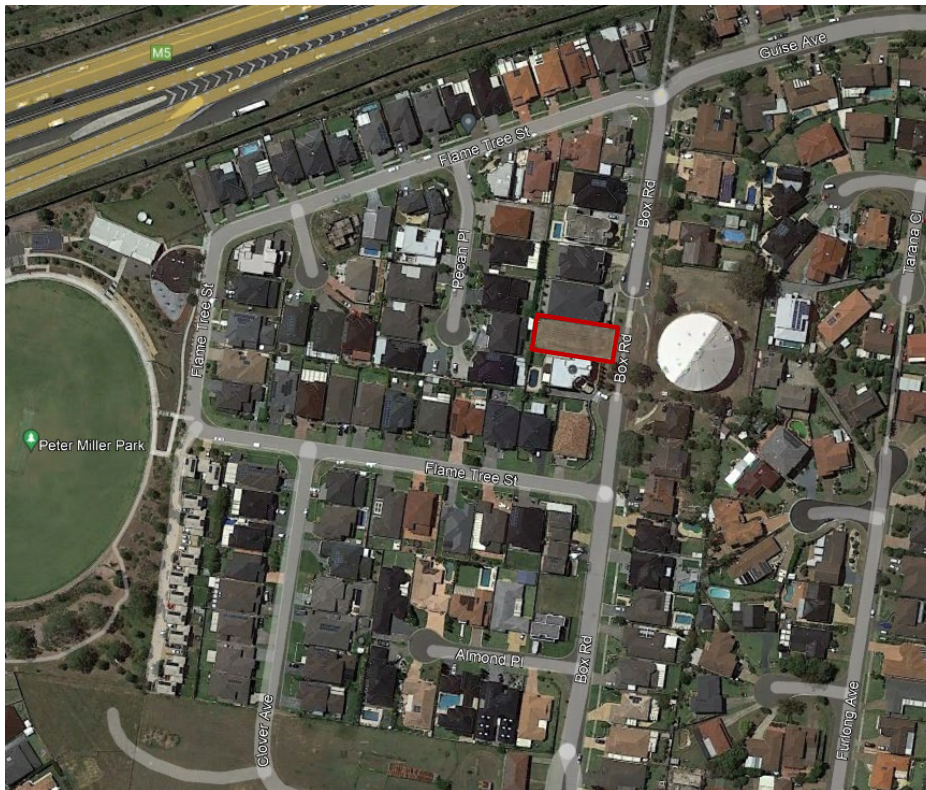
The proposed reclassification of the subject land is explained in detail in the *Planning Proposal: Amendment 98 to the Liverpool Local Environmental Plan 2008 - 22 Box Road Casula (Mimosa Park)* (Liverpool City Council, 2022) referred to in this report as “the planning proposal”.

This report makes recommendations to Council regarding the proposed reclassification.

## 1.2 Land to which the proposed reclassification applies

The subject site (Lot 1103 DP 1051233) is located at 22 Box Road in Casula.

Figure 1 Location of 22 Box Road, Casula



### 1.3 Contents of this report

The remainder of this report contains:

- ☐ a general explanation of the proposed reclassification of the subject land from community land to operational land (Section 2)
- ☐ explanation of the proposed reclassification of 22 Box Road in Casula (Section 3)
- ☐ the public hearing details (Section 4)
- ☐ submissions (Section 5)
- ☐ assessment of submissions and recommendations (Section 6).

## 2 RECLASSIFICATION OF COMMUNITY LAND

### 2.1 What is reclassification of community land?

Under the *Local Government Act 1993*, public land is classified as either 'operational' or 'community' land. 22 Box Road in Casula is currently classified as community land under the *Local Government Act 1993*.

Community land would ordinarily comprise land accessible to the public, such as a park, sporting fields, or a community centre. Community land must not be sold, except in the limited circumstances referred to in Section 45 (4) of the Act.

Community land may only be leased or licensed for up to 21 years without the Minister's consent or up to 30 years with the Minister's consent. Community land may only be leased or licensed for more than 5 years if public notice of the proposed lease or licence is given and, in the event that an objection is made to the proposed lease or licence, the Minister's consent is obtained. Council also cannot grant a lease, licence or other estate for private purposes over community land.

Operational land would ordinarily comprise land held as a temporary asset or as an investment, land which facilitates the carrying out by a Council of its functions, or land which may not be open to the general public such as a works depot. Operational land may be leased for a longer period of time, and may be sold/ transferred. Operational land does not have any special restrictions and can be used by Council for a broad range of purposes.

Classification or reclassification of land does not affect any estate or interest a council has in the land.

### 2.2 Process of reclassification of community land

The *Local Government Act 1993* and the *Environmental Planning and Assessment Act 1979* set out requirements that Councils must follow when reclassifying community land to operational land. Relevant legislation can be accessed at [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au).

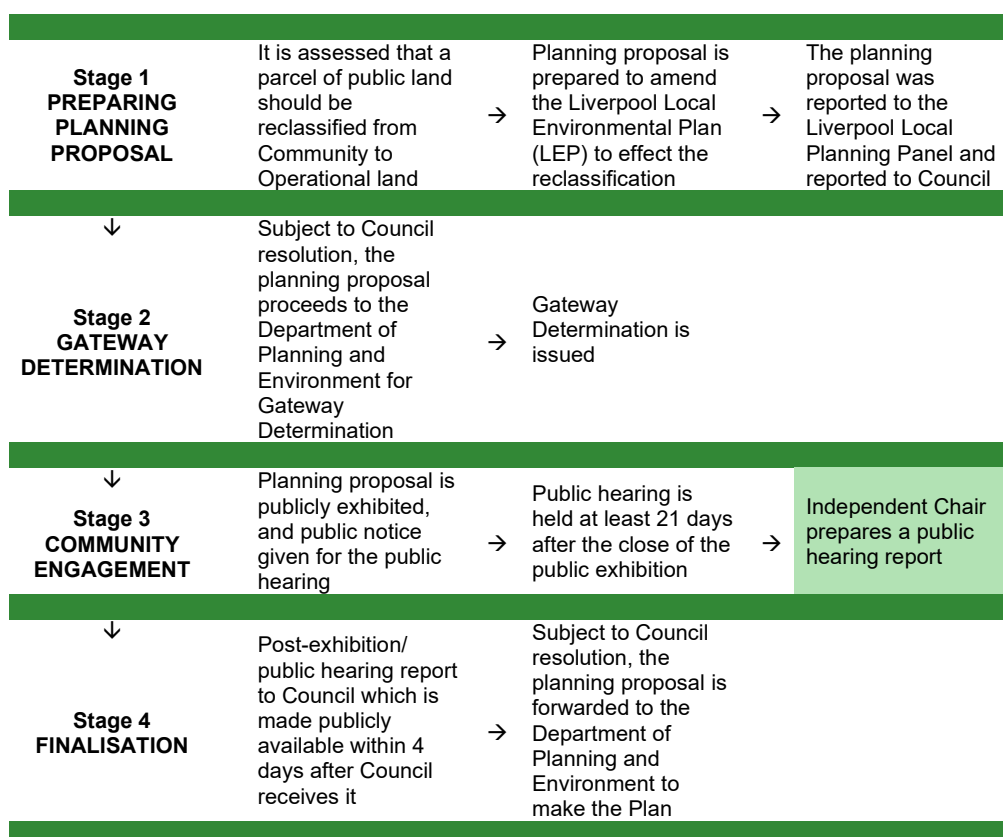
Reclassification may be carried out by either:

1. A Local Environmental Plan under the *Environmental Planning and Assessment Act 1979* through Section 27(1) of the *Local Government Act 1993*, or
2. Council resolution under Section 27(2) of the *Local Government Act 1993*.

Council is proposing to reclassify the Council-owned community land under Option 1 by amendments to the Liverpool Local Environmental Plan 2008.

The process of reclassifying community to operational land by changes to the Liverpool Local Environmental Plan 2008 is in Figure 2.

Figure 2 Process of reclassifying community land to operational land by local environmental plan



## 2.3 Process of the public hearing and report

Table 1 Process of the public hearing and report

Process	Relevant legislation
Liverpool Local Planning Panel advice	
Liverpool City Council resolved to support the proposal to reclassify 22 Box Road in Casula from community to operational land	
Council referred the planning proposal to the NSW Department of Planning and Environment for Gateway Determination	Section 3.34(1) of <i>Environmental Planning and Assessment Act 1979</i>
Gateway Determination issued by DPE	Section 3.34(2) of <i>Environmental Planning and Assessment Act 1979</i>
Council places copies of the planning proposal and supporting information on public exhibition for comment. Copies were available on Council's website, and at Council's administration centre. 2 written submissions to the planning proposal were received.	

Process	Relevant legislation
Public notice of the public hearing after the conclusion of the statutory public exhibition of the planning proposal	
<b>The public hearing into the proposed reclassification was held on Thursday 21 September 2023. The person presiding at the public hearing is not a councillor or employee of the council holding the public hearing, or has been a councillor or employee of that council at any time during the 5 years before the date of her appointment.</b>	<b>Section 29 of <i>Local Government Act 1993</i> Department of Planning and Environment Practice Note PN 16-001 Section 47G of <i>Local Government Act 1993</i></b>
<b>Independent chairperson at public hearing prepared the public hearing report and issued it to Council.</b>	
Council must make a copy of the public hearing report available for inspection by the public at a location within the area of the council no later than 4 days after it has received a report from the person presiding at the public hearing as to the result of the hearing.	Section 47G of <i>Local Government Act 1993</i>
Consideration of the public hearing report and public submissions by Council.	
<b><i>If Council decides to proceed with the reclassification:</i></b>	
Council requests the Department of Planning and Environment to prepare the draft Local Environmental Plan to give effect to the planning proposal.	
Amendment made to the <i>Liverpool Local Environmental Plan 2008</i> to reclassify the community land as operational land may make provision to the effect that, on commencement of the plan, the land ceases to be a public reserve, and that the land is by operation of the plan discharged from any trusts, estates, interests, dedications, conditions, restrictions and covenants affecting the land or any part of the land.	Section 27 of <i>Local Government Act 1993</i>
Reclassification of the land to operational land.	Section 30(1) of <i>Local Government Act 1993</i>

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### 3 PROPOSED RECLASSIFICATION OF 22 BOX ROAD, CASULA

#### 3.1 Description of 22 Box Road, Casula

22 Box Road in Casula, also known as Mimosa Park, is owned and managed by Liverpool City Council.

The site comprises a vacant block of land 565m<sup>2</sup> in area covered by mown grass.

The site slopes approximately 4 metres in level from the Box Road frontage towards the rear of the site at a gradient close to 1:10.

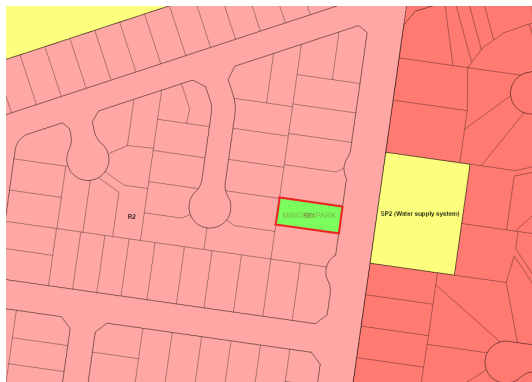
The site is adjoined by low density two-storey residential dwellings on three sides.

Figure 3 Location and characteristics of 22 Box Road, Casula



22 Box Road, Casula is currently zoned RE1 Public Recreation under the Liverpool Local Environmental Plan 2008 as shown in Figure 4. The site is bound by low density double-storey residential dwellings zoned R2 Low Density Residential on its northern, southern and western boundaries.

Figure 4 Zoning of 22 Box Road, Casula



Zoning Map (Source LLEP 2008)

The site is constrained in terms of access. Part of Box Road is closed to private vehicles via a bus filter along the site's frontage to prevent Box Road being used as a bypass from the Hume Highway to Casula Town Centre. However, Box Road allows pedestrian and cycle access to the site.

Figure 5 Bus filter outside 22 Box Road, Casula



### 3.2 Background to reclassification of 22 Box Road, Casula

The background to and reasons for the proposed reclassification of 22 Box Road in Casula are set out in detail in the planning proposal. A timeline is in Table 2.

Table 2 Background to proposed reclassification of 22 Box Road, Casula

Date	Event
2003	22 Box Road in Casula was dedicated to Council as a developer contribution for public open space. Site was vested in Council's ownership on 14 April 2003 upon registration of DP 1051233 when it was dedicated as a public reserve and named Mimosa Park. Site was classified as community land.
August 2015	Council first proposed reclassification of Mimosa Park (22 Box Road in Casula). A public hearing was held on 5 August. The Public Hearing Report: Proposed reclassification of community land in West Ward, Liverpool (Parkland Planners, 2015) recommended to reclassify Mimosa Park as operational land and use the proceeds from sale to embellish a local park.
27 October 2020	Liverpool City Council considered a report on Mimosa Park, 22 Box Road, Casula and resolved to endorse Option 1 of the following two options: <ul style="list-style-type: none"> <li>- Option 1: Mimosa Park to be kept as a local park and embellished</li> <li>- Option 2: Reclassify, rezone and dispose of Mimosa Park.</li> </ul> Council resolved to allocate funds to undertake a feasibility study, environmental testing and a concept development for Mimosa Park.

Date	Event
2021	<p>Council prepared a concept for Mimosa Park as a new local pocket park for informal recreation and leisure activities including native vegetation plantings to the western boundary, new seating, and site retention on the western boundary.</p> <p>A soil contamination assessment by Environmental Earth Science in July 2021 found that, despite illegal dumping of domestic rubbish and minor building rubble on the vacant site, the site is unlikely to be contaminated.</p> <p>A Safety in Design Report for Mimosa Park by Moir Landscape Architecture in November 2021 was prepared as part of the ongoing design process for the new pocket park at 22 Box Road in Casula. Several risks were identified pertaining to public safety, accessibility, fall heights, maintainability and material selection, and the dropoff to the property below the site.</p> <p>The studies concluded that the site has limited functionality as public open space for recreation due to access, adjoining residential dwellings, level changes including a drop-off on the western boundary, and public safety constraints. The site is currently underutilised. However the site would be acceptable for low density residential development.</p> <p>Council concluded the site would be more suitable for development for a residential dwelling than as a pocket park, and that sale of the site would provide funds to embellish the larger Jardine Park in Casula. Despite the loss of open space at 22 Box Road, Council considered the embellishment of Jardine Park would improve open space opportunities in Casula.</p>
31 August 2022	<p>At its meeting on 31 August 2022 Council resolved to:</p> <ol style="list-style-type: none"> <li>1. <i>"Proceed with an amendment to Liverpool LEP 2008 to seek a rezoning for the property at 22 Box Road, Casula (Lot 1103 DP1051233) to R2 Low Density Residential and reclassification of the site to "operational" land for potential future sale with the proceed from any sale to be allocated for the embellishment of Jardine Park.</i></li> <li>2. <i>That if a rezoning and reclassification process are approved as part of an amendment to the LEP, that a further report be presented to Council recommending methods of sale and establishing a reserve / minimum price for the property, prior to proceeding with any sale."</i></li> </ol>
September-October 2022	<p>Council prepared a Planning Proposal as the first step in facilitating the reclassification of land from community to operational land, rezoning the property, and facilitating the sale of the property for future development as a single dwelling as permitted under the Liverpool LEP 2008.</p>
28 November 2022	<p>The Planning Proposal was referred to the Liverpool Local Planning Panel for advice at its meeting on 22 November 2022. Council officers recommended the Planning Proposal proceed to Gateway and consideration by the elected Council. The panel determined that the planning proposal has sufficient strategic and site specific merit to progress to the next stage of the planning proposal process to Gateway Determination, subject to Council officers being satisfied that evidence exists to demonstrate that the land is unsuitable for the purpose for which it was dedicated as required by Section 32 of the <i>Local Government Act 1993</i>.</p> <p>The panel noted the special procedure required by Section 32 of the <i>Local Government Act 1993</i> for the reclassification of community land dedicated under Section 94 of the <i>Environmental Planning and Assessment Act 1979</i>. As the land subject to the planning proposal was dedicated under Section 94, the requirements of Section 32 of the <i>Local Government Act 1993</i> are threshold requirements to the reclassification of the land. Sections 32(1) and (2) of the Act states that a council may resolve that land dedicated in accordance with a condition imposed under Section 94 of the <i>Environmental Planning and Assessment Act 1979</i> is to be reclassified as operational land only if it is satisfied that the land has been found to be unsuitable for the provision, extension or augmentation of public amenities and public services because of any one or more of:</p> <ul style="list-style-type: none"> <li>- the size of the land</li> <li>- the shape of the land</li> </ul>

Date	Event
	<ul style="list-style-type: none"> <li>- the topography of the land</li> <li>- the location of the land</li> <li>- the difficulty of providing public access to the land.</li> </ul>
29 March 2023	<p>At its Ordinary Meeting on 29 March 2023 Liverpool City Council resolved that Council:</p> <ol style="list-style-type: none"> <li>1. Notes the advice of the Liverpool Local Planning Panel.</li> <li>2. Endorses the planning proposal for 22 Box Road, Casula to amend the Land Use Zone, Floor Space Ratio, Lot Size and Height of Building development standards in the <i>Liverpool Local Environmental Plan 2008</i>.</li> <li>3. Forwards the planning proposal to Department of Planning and Environment, pursuant to Section 3.34 of the <i>Environmental Planning and Assessment Act 1979</i>, seeking a Gateway Determination.</li> <li>4. Reclassify 22 Box Road Casula from Community to Operational Land as per the requirements in the <i>Environmental Planning and Assessment Act 1979</i>, and <i>Local Government Act 1993</i>.</li> <li>5. Subject to Gateway Determination, undertake community consultation in accordance with the conditions of the Gateway determination, the Liverpool Community Participation Plan 2022 and the <i>Local Government Act 1993</i>.</li> <li>6. Receives a further report on the outcomes of public exhibition and community consultation.</li> </ol>
6 June 2023	DPE issued the Gateway Determination which requires Council to publicly exhibit the Planning Proposal, and to hold a public hearing according to the <i>Local Government Act 1993</i> and DPE's Practice Note PN 16-001
17 July to 14 August 2023	<p>The Planning Proposal was placed on public exhibition for comment. Two submissions from local residents were received, which were not in favour of the proposed change to the planning controls to allow a new dwelling on the site.</p> <p>Consultation with two State agencies raised no concerns about the proposal.</p>
21 September 2023	Public hearing held under Section 29 of the <i>Local Government Act 1993</i> regarding proposed reclassification of community land to operational land

### 3.3 Proposed reclassification of 22 Box Road, Casula

As Council considers that 22 Box Road in Casula is not suitable for a public park, Council wishes to sell the site to enable redevelopment for low density residential use, such as a single dwelling.

The Planning Proposal seeks to:

- ☐ reclassify 22 Box Road in Casula from community to operational land.
- ☐ amend the land use zoning of 22 Box Road, Casula from RE1 Public Recreation to R2 Low Density Residential.
- ☐ apply planning controls of Height of Building of 8.5 metres, Floor Space Ratio of 0.6:1 and a Minimum Lot Size of 300m<sup>2</sup>.

Refer to Figure 6 for proposed changes to planning controls.

Figure 6 Proposed changes to planning controls for 22 Box Road, Casula

**Land Use Zoning**

Table 6 Existing and Proposed Zoning Map

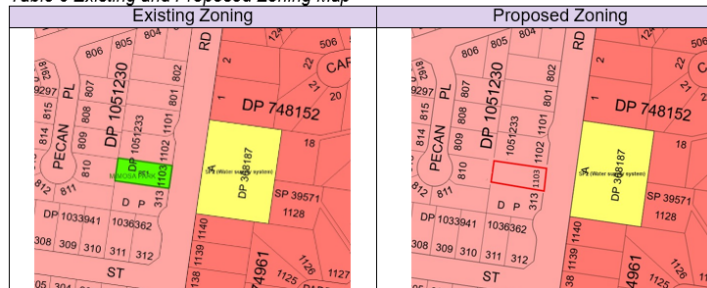
**Floor Space Ratio Maps**

Table 7 Existing and Proposed Floor Space Ratio Map

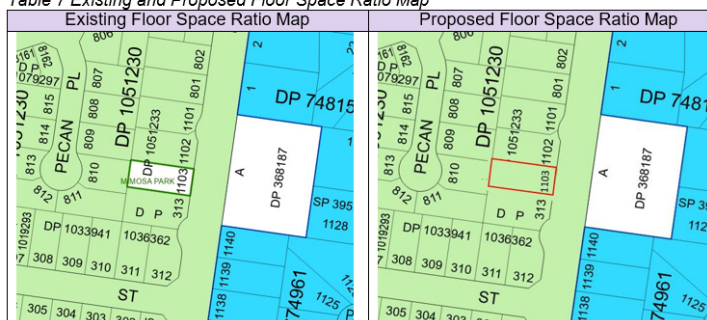
**Height of Building Maps**

Table 8 Existing and Proposed Height of Building Map

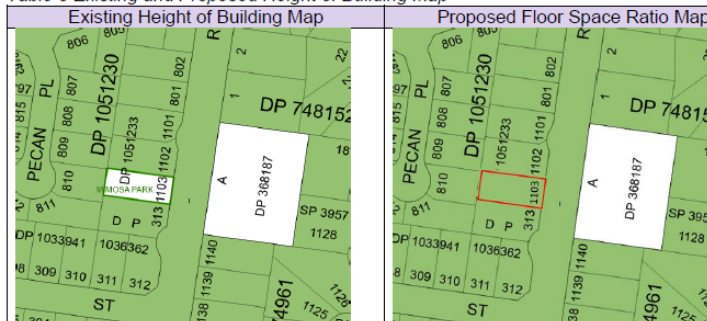
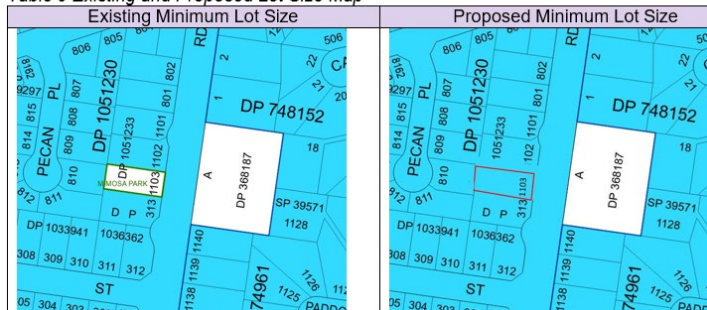
**Minimum Lot Size Maps**

Table 9 Existing and Proposed Lot Size Map



The process involved includes:

- ☐ extinguishing Council's interests in the site, including as a public reserve
- ☐ reclassifying the site from community land to operational land to allow sale of the site
- ☐ amending the Liverpool Local Environmental Plan 2008 to change the planning controls applying to the site, including changing the zoning from RE1 Public Recreation to R2 Low Density Residential, and applying the adjacent R2 Low Density Residential planning controls (building height 8.5 metres, floorspace ratio of 0.6:1, and minimum lot size of 300m<sup>2</sup>)
- ☐ facilitating sale of the property.

Sale of the site will generate funds to further embellish Jardine Park in Casula, 2.0km walking and driving distance north-east from the site, to further increase its functionality.

Any future residential development on the site would require planning approval, either by a Development Application to Council or by a Complying Development Certificate.


## 4 THE PUBLIC HEARING

### 4.1 Advertising and notification

Liverpool City Council advised the community about the public exhibition of the planning proposal and the public hearing in several ways as follows:

- ❑ information on Liverpool Listens, Notices and Exhibition Page, as well as E-planning. Refer to Figure 7 for online notification and information.
- ❑ three social media posts, which notified residents that the exhibition was open for comments, and notification of the public hearing details (Figure 8).
- ❑ two rounds of letters to nearby residents, one notifying of the public exhibition commencing, and one notifying of the public hearing.
- ❑ phone calls to the two individual submitters to the public exhibition advising of the date, time and location of the public hearing.

Figure 7 Online notice about public hearing at 'Liverpool Listens'



listens.liverpool.nsw.gov.au/projects/2023/planning-proposal-for-22-box-road-casula-mimosa-park-rz-92022

View all Projects > Public Hearing for 22 Box Road, Casula (Mimosa Park) – RZ-9/2022

### Public Hearing for 22 Box Road, Casula (Mimosa Park) – RZ-9/2022

#### Related

- Planning Proposal Document
- Fact Sheet
- Gateway Determination
- Classification and Re-classification of land Practice Note
- Checklist for reclassifying Land
- Local Planning Panel Report
- Local Planning Panel Minutes
- Safety Design Report
- Soil Contamination (Mimosa Park)
- Title Search, Lot and DP and 88b Instrument
- Minutes of Ordinary Council Meeting 29 March 2023
- Public hearing Fact Sheet

#### Project Overview

Liverpool City Council is seeking community input on a planning proposal to change planning controls at 22 Box Road, Casula, which is a Council owned reserve, known locally as Mimosa Park.

Council previously investigated options to further develop the site as a local park, however it was found to be unsuitable for a recreation area. Therefore, a change to planning controls is proposed to enable the development of a single dwelling on the site. Funds generated from the sale of the site will be used to further enhance Jardine Park, Casula.

The planning proposal was publicly exhibited from 17 July – 14 August 2023. It intends to change the zone from RE1 Public Recreation, to R2 Low Density Residential. The proposal also intends to apply height of building, floor space ratio and minimum lot size development standards to the site, which will be the same as the adjoining low density residential zone.

The Public Hearing for the reclassification of land (from Community Land to Operational Land) will be held at Lurnea Community Hub on **Thursday 21 September 2023**, at 5:30pm. This will be facilitated by Sandy Hoy, of Parkland Planners.

#### Who's Listening

The Planning Proposal can also be viewed by searching for 'PP-2023-701' on the [NSW Planning Portal](#) or via Liverpool Listens on Councils Website.

For further enquiries relating to the rezoning, please contact Brianna van Zyl Senior Strategic Planner, on 8711 7940 or [vanzylb@liverpool.nsw.gov.au](mailto:vanzylb@liverpool.nsw.gov.au).

#### What happens next?

All submissions will be assessed, and a public hearing will be held on **21 September 2023** Lurnea Community Centre. This will discuss the concerns raised in the received

Figure 8 Facebook post



## 4.2 Timing of the public hearing

The public hearing was timed to occur after the public exhibition of and receipt of written submissions regarding the planning proposal for the proposed reclassification of the land closed on 14 August 2023.

Public notice of the public hearing was given at least 21 days after the completion of the statutory public exhibition period of the planning proposal.

The public hearing to receive submissions on the proposed reclassification of community land at 22 Box Road, Casula was held on Thursday 21 September 2023 from 5.30pm at the Lurnea Community Hub, 66 Hill Road, Lurnea.

## 4.3 Chairperson

As required under Section 47G of the *Local Government Act 1993*, Council appointed an independent chairperson, Sandy Hoy, Director of Parkland Planners, to chair the public hearing. Ms. Hoy has not at any time been either a Councillor or an employee of Liverpool City Council.

## 4.4 Site inspection

Ms. Hoy inspected 22 Box Road, Casula before the public hearing.

## 4.5 Attendance at the public hearing

The following Council officers were present at the hearing to represent Council, listen to verbal submissions, and answer questions:

Brianna van Zyl	Senior Strategic Planner
Nancy-Leigh Norris	Acting Co-ordinator Strategic Planning
Luke Oste	Acting Manager City Planning
Danielle Hijazi	Assistant Strategic Planner

Four community members attended the public hearing.

## 4.6 Agenda of the public hearing

Ms. Hoy opened the public hearing at 5:35pm, and explained the purpose and process of the public hearing. Council officers explained the purpose of the proposed reclassification, and answered questions. A presentation using information from the planning proposal was referred to for background information about the proposed reclassification.

Verbal submissions regarding the proposed reclassification were received at the public hearing. The content of those submissions is outlined in more detail in Section 5 of this report.

With there being no further submissions or questions, Ms. Hoy closed the hearing at 6.20pm.

## 4.7 Written submissions

Written submissions after the public hearing could be lodged with the Independent Chairperson by Thursday 28 September 2023 by:

- ☐ email at [sandy@parklandplanners.com.au](mailto:sandy@parklandplanners.com.au)
- ☐ post to Sandy Hoy, Parkland Planners, PO Box 41, FRESHWATER NSW 2096.

No written submissions after the public hearing were received.

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## 5 SUBMISSIONS

### 5.1 Written submissions before the public hearing

Two written submissions were received by Council in response to the public exhibition of the Planning Proposal.

The first written submission received was from a resident of Box Road. They disagreed with the proposed change to the planning controls for 22 Box Road in Casula, because if a new dwelling is built it will cause the area to be more overcrowded and busy, and the parking space to be more limited. They noted parking at Box Road has been a problem for a while now.

The second written submission was received from a resident of Pecan Place. They are concerned about the impacts of construction of a new dwelling on 22 Box Road on their property, in terms of drainage patterns and water flow, flooding, soil erosion, and potential damage to their home's foundations and structural integrity. They request that Council conducts a thorough assessment of the potential impacts of properties situated on the lower side of 22 Box Road, which should include a comprehensive analysis of water flow patterns, soil stability, and potential risks of converting the land to residential use. Council should consider implementing proper mitigative measures to address any potential issues that could arise, which could include proper drainage systems, retaining walls, or other mechanisms to effectively manage water runoff and prevent damage to properties.

### 5.2 Public hearing submissions

The question posed to the community regarding the purpose of the public hearing is:

**Do you agree or not with the proposal to reclassify 22 Box Road in Casula from community land to operational land? Why or why not?**

Four people attended the hearing, with three people addressing the public hearing. Their comments and questions are set out below.

Table 3 Verbal submissions to the public hearing

Submission / question	Council response
There is a 4 metre dropoff to the back of the site. The slope is dangerous.	Noted
Children hang out in the park.	Noted
What does 300m <sup>2</sup> minimum building size mean?	The site can't be subdivided because each lot would need to be a minimum 300m <sup>2</sup> which is not possible on a lot size less than 600m <sup>2</sup> .
What are the setbacks and boundaries?	Setbacks and boundaries are the same as those that apply to the surrounding development as set out in the Liverpool Development Control Plan.

Submission / question	Council response
The retaining wall will be at the same level as our roof at 10 Pecan Place.	The roof of a dwelling on 22 Box Road can be a maximum of 8.5 metres above the natural ground level.
We have lived next door to the land for 17 years. We can't accept it like it is, and would rather see it developed. A house on 22 Box Road would enhance the whole street and the whole area.	Noted
It is definitely not a park because it is not usable.	Noted
We have spoken to the person who did the safety review and raised concerns that it is not safe for a park.	Noted
We wouldn't let children go next door to kick the ball. They have to go to another park for safety.	Noted
Long grass on the site. We have sent letters and emails to Council to have the grass cut. Council is now maintaining it.	Noted
Rats, spiders and snakes are in the grass.	Noted
Children jump over our fence from the park	Noted
Children dump rubbish there	Noted
When it rains water and snails come into our property.	Noted
Within a 2 to 3 minute walk we have a fantastic, beautiful park where our grand-children play.	Noted
If the park was built and maintained we would be happy, but as it is unsafe and the park is not going to happen, a house can be built and no-one will dump rubbish	Noted
Concern about the impact of an 8.5 metre building height on 22 Box Road on our privacy. We built the top level of our house to overlook the park because we thought a park would be established.	Noted
Concern about drainage and water levels due to slope and runoff. Concern about water issues in our house such as moisture on walls during heavy rain.	Noted

Submission / question	Council response
Concern about soil on a steep site, and its pressure on a retaining wall that it won't hold up. Doesn't know how strong the retaining wall will be. There should be legislation if something is built on 22 Box Road that there will be no impact from water on neighbours.	Council staff have checked the soil.
Concern about noise, excavation and dust during construction of a house on 22 Box Road. Want conditions imposed and extra precautions to ensure there are no impacts on adjoining houses in terms of setbacks, soil, etc.	Noted
All water should be caught. Council's engineers say the easement at the back of 22 Box Road will carry stormwater to the easement.	Nos. 16 to 24 Box Road are serviced by a 300mm stormwater pipe. Each house has a stormwater pit. There will be an opportunity to comment on the Development Application for 22 Box Road regarding the design, and to raise issues such as water.
The person who buys the property needs to know about the site issues.	Noted
Make sure the people who buy the land have amenity.	Noted
How large will the retaining wall be?	A list of conditions regarding the R2 zoning is included in the process to allay such concerns.
Ensure that the new house won't have an impact on existing neighbours.	Noted
Ensure that the buyer of 22 Box Road has to deal with their site in terms of retaining walls, etc.	Noted
Do I have to do anything to make sure the new house on 22 Box Road won't affect my house?	Your land is yours to do what you wish with. Under the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 Council may not be required to notify the neighbours of a Development Application for 22 Box Road. The developer is required to post contact details on the site and to follow a Construction Management Plan.

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## 6 ASSESSMENT AND RECOMMENDATIONS

### 6.1 Assessment of submissions

After reviewing and considering the written submissions and the verbal submissions made at the public hearing set out in Section 5, the key points of the submissions are:

- ☐ support for reclassification, because the site is unsuitable for a public park, for reasons including vermin, rubbish, steep gradient, and poor drainage.
- ☐ support for reclassification, subject to concerns about privacy, water drainage and soil retention being addressed in the planning and construction process
- ☐ objection to changes in planning controls resulting in increased demand for parking in Box Road.

On balance, the land is not suitable for a public park in terms of its location, poor vehicle access, small size, steep slope, poor visibility and public safety. The community would be better served by Council reclassifying, rezoning and selling the site for low density residential development, and using the proceeds to improve another local park. Concerns from adjoining residents about privacy, drainage and soil movement resulting from development of the site should be addressed in the development approval process.

### 6.2 Recommendations regarding the proposed reclassification

Submissions to the public exhibition and the outcomes of the public hearing will be reported to a Council meeting later in 2023 to determine if the Planning Proposal should proceed.

After considering the submissions received, my recommendations to Liverpool City Council regarding the proposed reclassification of 22 Box Road, Casula from community land to operational land are to:

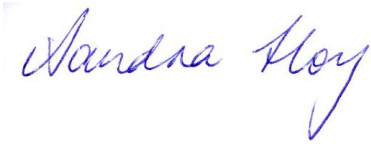
1. Consider the viewpoints and issues raised in the verbal submissions outlined in Section 5 when making the decision whether to proceed with the proposed reclassification.
2. Reclassify 22 Box Road, Casula (Lot 1103 DP 1051233) from community land to operational land.
3. Amend the Liverpool Local Environmental Plan 2008 to change the planning controls applying to the site, including changing the zoning from RE1 Public Recreation to R2 Low Density Residential, and applying the adjacent R2 Low Density Residential planning controls (building height 8.5 metres, floorspace ratio of 0.6:1, and minimum lot size of 300m<sup>2</sup>).

### 6.3 Recommendations for reporting

Within four days of receiving this report, Council is required under Section 47G(3) of the *Local Government Act 1993* to make a copy of this report available for inspection by the public. It is recommended that Council:

- ☐ send a copy of the public hearing report to the people who attended the public hearing.

- ☐ keep a copy of the public hearing report for inspection at Liverpool and Casula Libraries, and at the Liverpool Customer Service Centre in Moore Street (on request).
- ☐ post an electronic copy of the public hearing report on Council's website.



**Sandy Hoy**  
**Director, Parkland Planners**

11 October 2023

**Community Submission (id1)**

I disagree with the the change to planning controls at 22 box road Casula. The area will become extremely busy and parking at box road has been a problem for a while now. If there were to be a new dwelling built it will cause the area to be more overcrowded and the parking space to be more limited.

**Community Submission (Id2)**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Senior Strategic Planner

Liverpool Council

Sydney, NSW, 2170

Subject: Concerns Regarding Proposed Residential Land Conversion Behind [REDACTED]

Dear [REDACTED]

I hope this letter finds you in good health. I am writing to express my deep concerns regarding the proposed conversion of the land located behind my property, 10 Pecan Pl, into a residential area. I appreciate the need for community development, but I am worried about the potential impact on my home due to its unique placement on the lower side of the land.

The topography of my property places my home on the lower side of the land, which makes it particularly susceptible to water runoff and potential damages. I am concerned that any construction or alterations to the land could disrupt the natural drainage patterns, leading to increased water flow towards my property. This situation could result in flooding, soil erosion, and potential damages to my home's foundation and structural integrity.

The delicate balance of water drainage and soil stability in this area makes any changes to the land a cause for significant concern. I kindly request that the council conducts a thorough assessment of the potential impacts on properties situated on the lower side of the land, like mine. This assessment should include a comprehensive analysis of water flow patterns, soil stability, and potential risks associated with the proposed conversion.

Furthermore, I urge the council to consider the implementation of proper mitigation measures to address any potential issues that may arise. This could include designing proper drainage systems, retaining walls, or other mechanisms to manage water runoff effectively and prevent damages to properties like mine.

As a homeowner who has invested both financially and emotionally in my property, I am deeply concerned about the potential consequences of the proposed land conversion. I kindly request that the council prioritizes the preservation of existing properties and addresses the specific challenges posed by the unique topography of this area.

I am more than willing to participate in any discussions, meetings, or surveys related to this project to ensure that my concerns are fully understood and considered. Transparent communication and collaboration between the council and the affected residents are crucial to finding a balanced and sustainable solution.

Thank you for your time and consideration of my concerns. I trust that the council will make informed decisions that prioritize the well-being and interests of all residents in our community.

Sincerely,





2 August 2023

**Brianna van Zyl**  
Liverpool City Council  
vanzylb@liverpool.nsw.gov.au

**RE: Planning Proposal PP-2023-701 at 22 Box Road, Casula (Mimosa Park)**

Thank you for notifying Sydney Water of the planning proposal listed above, which proposes the rezoning of the council owned site to R2 Low Density Residential from RE1 Public Recreation and reclassify the site from community to operational land. We have reviewed the application based on the information supplied and provide the following comments for your information to assist in planning the servicing needs of the proposed development.

**Water Servicing**

- Drinking water servicing should be available for the proposed development.
- Extensions and/or amplifications of the potable water network may be required.
- Detailed servicing requirements will be provided at the Section 73 stage.

**Wastewater Servicing**

- The development can be serviced via an extension to the existing wastewater network.
- Detailed servicing requirements will be provided at the Section 73 stage.

This advice is not a formal approval of our servicing requirements. Detailed requirements, including any potential extensions or amplifications, will be provided once the development is referred to Sydney Water for a Section 73 application. More information about the Section 73 application process is available on our [Land Development](#) web page.

The development servicing advice provided by Sydney Water is based on the best available information at the time of referral (eg. planning proposal) but will vary over time with development and changes in the local systems. This is particularly important in systems with limited capacity (such as Priority Sewerage Program scheme areas) and it is best to approach Sydney Water for an updated capacity assessment (especially where an approval letter is more than 12 months old).

If you require any further information, please contact the Growth Planning Team at [urbangrowth@sydneywater.com.au](mailto:urbangrowth@sydneywater.com.au).

Yours sincerely,

A handwritten signature in black ink, appearing to read "L Salli".

**Lyndall Salli**  
A/Commercial Growth Manager  
City Growth and Development, Business Development Group  
Sydney Water, 1 Smith Street, Parramatta NSW 2150

**Development Application and Planning Proposal Review  
NSW Planning Portal Concurrence and Referral**


Authority	Authority's Reference	Agency Concurrence and Referral	Authority Contact	Authority Notification	Submission Due	Submission Made
Liverpool City Council	PP-2023-701	Ref-2314	Brianna van Zyl	14/07/2023	11/08/2023	16/07/2023

Address	Land Title
22 Box Road, Casula	Lot 1103 DP 1051233

**Scope of Development Application or Planning Proposal**

Amend the Liverpool Local Environmental Plan 2008 (LLEP 2008) for the rezoning of the Council owned site, locally known as Mimosa Park, from RE1 Public Recreation to R2 Low Density Residential, and reclassification from Community to Operational land. Development standards will be applied in accordance with adjacent R2 Low Density Residential land.

**As shown in the below site plan from Endeavour Energy's G/Net master facility model:**

There are:

- No easements benefitting Endeavour Energy (active easements are indicated by red hatching).
- Low voltage, 11,000 volt / 11 kilovolt (kV) high voltage and 33,000 volt / 33 kV high voltage underground cables, underground earth cables and underground pilot cables (carrying protection signals or communications between substations) to the road verge / roadway.
- No low voltage service conductor / customer connection point to the site.

Relevant / applicable clause numbers from Endeavour Energy's standard conditions for Development Application and Planning Proposal Review indicated by ☒.

Condition	Advice	Clause No.	Issue	Detail
<input type="checkbox"/>	<input type="checkbox"/>	1	Adjoining Sites	Adjoining or nearby development / use should be compatible with the use of Endeavour Energy's sites.
<input type="checkbox"/>	<input type="checkbox"/>	2	Asbestos	Area identified or suspected of having asbestos or asbestos containing materials (ACM) present in the electricity network.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	Asset Planning	Applicants should not assume adequate supply is immediately available to facilitate their proposed development.
<input type="checkbox"/>	<input type="checkbox"/>	4	Asset Relocation	Application must be made for an asset relocation / removal to determine possible solutions to the developer's requirements.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5	Before You Dig	Before commencing any underground activity the applicant must obtain advice from the Before You Dig service.
<input type="checkbox"/>	<input type="checkbox"/>	6	Bush Fire	Risk needs to be managed to maintain the safety of customers and the communities served by the network.
<input type="checkbox"/>	<input type="checkbox"/>	7	Construction Management	Integrity of electricity infrastructure must be maintained and not impacted by vehicle / plant operation, excessive loads, vibration, dust or moisture penetration.
<input type="checkbox"/>	<input type="checkbox"/>	8	Contamination	Remediation may be required of soils or surfaces impacted by various forms of electricity infrastructure.
<input type="checkbox"/>	<input type="checkbox"/>	9	Demolition	All electricity infrastructure shall be regarded as live and care must be taken to not interfere with any part of the electricity network.
<input type="checkbox"/>	<input type="checkbox"/>	10	Dispensation	If a proposal is not compliant with Endeavour Energy's engineering documents or standards, the applicant must request a dispensation.
<input type="checkbox"/>	<input type="checkbox"/>	11	Driveways	For public / road safety and to reduce the risk of vehicle impact, the distance of driveways from electricity infrastructure should be maximised.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	12	Earthing	The construction of any building or structure connected to or in close proximity to the electrical network must be properly earthed.
<input type="checkbox"/>	<input type="checkbox"/>	13	Easement Management	Preference is for no activities to occur in easements and they must adhere to minimum safety requirements.
<input type="checkbox"/>	<input type="checkbox"/>	14	Easement Release	No easement is redundant or obsolete until it is released having regard to risks to its network, commercial and community interests.
<input type="checkbox"/>	<input type="checkbox"/>	15	Easement Subdivision	The incorporation of easements into multiple / privately owned lots is generally not supported.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	16	Emergency Contact	Endeavour Energy's emergency contact number 131 003 should be included in any relevant risk and safety management plan.
<input type="checkbox"/>	<input type="checkbox"/>	17	Excavation	The integrity of the nearby electricity infrastructure shall not be placed at risk by the carrying out of excavation work.
<input type="checkbox"/>	<input type="checkbox"/>	18	Flooding	Electricity infrastructure should not be subject to flood inundation or stormwater runoff.
<input type="checkbox"/>	<input type="checkbox"/>	19	Hazardous Environment	Electricity infrastructure can be susceptible to hazard sources or in some situations be regarded as a hazardous source.
<input type="checkbox"/>	<input type="checkbox"/>	20	Modifications	Amendments can impact on electricity load and the contestable works required to facilitate the proposed development.
<input type="checkbox"/>	<input type="checkbox"/>	21	Network Access	Access to the electricity infrastructure may be required at any time particularly in the event of an emergency.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	22	Network Asset Design	Design electricity infrastructure for safety and environmental compliance consistent with safe design lifecycle principles.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	23	Network Connection	Applicants will need to submit an appropriate application based on the maximum demand for electricity for connection of load.

Condition	Advice	Clause No.	Issue	Detail
<input type="checkbox"/>	<input type="checkbox"/>	24	Protected Works	Electricity infrastructure without an easement is deemed to be lawful for all purposes under Section 53 'Protection of certain electricity works' of the <i>Electricity Supply Act 1995</i> (NSW).
<input type="checkbox"/>	<input type="checkbox"/>	25	Prudent Avoidance	Development should avert the possible risk to health from exposure to emissions from electricity infrastructure such as electric and magnetic fields (EMF) and noise.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	26	Public Safety	Public safety training resources are available to help general public / workers understand the risk and how to work safely near electricity infrastructure.
<input type="checkbox"/>	<input type="checkbox"/>	27	Removal of Electricity	Permission is required to remove service / metering and must be performed by an Accredited Service Provider.
<input type="checkbox"/>	<input type="checkbox"/>	28	Safety Clearances	Any building or structure must comply with the minimum safe distances / clearances for the applicable voltage/s of the overhead power lines.
<input type="checkbox"/>	<input type="checkbox"/>	29	Security / Climb Points	Minimum buffers appropriate to the electricity infrastructure being protected need to be provided to avoid the creation of climb points.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	30	Service Conductors	Low voltage service conductors and customer connection points must comply with the 'Service and Installation Rules of NSW'.
<input type="checkbox"/>	<input type="checkbox"/>	31	Solar / Generation	The performance of the generation system and its effects on the network and other connected customers needs to be assessed.
<input type="checkbox"/>	<input type="checkbox"/>	32	Streetlighting	Streetlighting should be reviewed and if necessary upgraded to suit any increase in both vehicular and pedestrian traffic.
<input type="checkbox"/>	<input type="checkbox"/>	33	Sustainability	Reducing greenhouse gas emissions and helping customers save on their energy consumption and costs through new initiatives and projects to adopt sustainable energy technologies.
<input type="checkbox"/>	<input type="checkbox"/>	34	Swimming Pools	Whenever water and electricity are in close proximity, extra care and awareness is required.
<input type="checkbox"/>	<input type="checkbox"/>	35	Telecommunications	Address the risks associated with poor communications services to support the vital electricity supply network Infrastructure.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	36	Vegetation Management	Landscaping that interferes with electricity infrastructure is a potential safety risk and may result in the interruption of supply.
<b>Completed by:</b>			<b>Decision</b>	
Cornelis Duba			Advice	

**Cornelis Duba** | Development Application Specialist

M 0455250981

E [cornelis.duba@endeavourenergy.com.au](mailto:cornelis.duba@endeavourenergy.com.au)

**We have moved:** Level 40-42, 8 Parramatta Square, 10 Darcy Street  
Parramatta NSW 2150.

Dharug/Wiradjuri/Dharawal/Gundungurra/Yuin Country

[endeavourenergy.com.au](http://endeavourenergy.com.au) | [in](#) [f](#) [v](#) [t](#)



**Endeavour  
Energy**

**POWER  
together**



Endeavour Energy respectfully acknowledges the Traditional Custodians on whose lands we live, work, and operate and their Elders past, present and emerging.

**Reason(s) for Conditions / Decision (If applicable)**

- The Planning Proposal does not appear to address in detail whether the available electricity services are adequate for the proposed development.

**Section D – Infrastructure (local, state and commonwealth)****3.11 Is there adequate public infrastructure for the planning proposal?**

The subject site is located in Casula which is a developed residential area with adequate public infrastructure to accommodate for the additional dwelling on the subject site.

- The electricity distribution network generally provides a single customer connection point for each developable lot for the provision of electricity supply for a basic low voltage connection service where the total maximum demand is no greater than 100 amperes 230 volts (single phase) or no greater than 63 amperes 400 volts (three phase).
- A single dwelling within an urban area is usually capable of direct connection to the existing low voltage network. However to ensure an adequate connection, the applicant may need to engage an Accredited Service Provider (ASP) of an appropriate level and class of accreditation to assess the electricity load and the proposed method of supply for the development.
- To ensure an adequate connection the applicant will need to engage an Accredited Service Provider (ASP) of an appropriate level and class of accreditation to assess the electricity load and the proposed method of supply for the development.
- The existing padmount substations in the area are likely to have some spare capacity sufficient to supply the proposed development, but it is not unlimited. Other factors such as the size and rating / load on the conductors and voltage drop (which can affect the quality of supply particularly with long conductor runs) etc. need to be assessed. However the extent of any works required will not be determined until the final load assessment is completed.
- The new low voltage service conductor and customer connection point must comply with the 'Service and Installation Rules of NSW'.
- The planting of large / deep rooted trees near electricity infrastructure is opposed by Endeavour Energy. Existing trees which are of low ecological significance in proximity of electricity infrastructure should be removed and if necessary replaced by an alternative smaller planting. The landscape designer will need to ensure any planting near electricity infrastructure achieves Endeavour Energy's vegetation management requirements.
- Not all the conditions / advice marked may be directly or immediately relevant or significant to the Development Application. However, Endeavour Energy's preference is to alert proponents / applicants of the potential matters that may arise should development within closer proximity of the existing and/or required electricity infrastructure needed to facilitate the proposed development on or in the vicinity of the site occur.

### Condition or Advice

With Endeavour Energy's Development Application and Planning Proposal Review process / system the intent of the 'Standard Conditions' being indicated as either a 'Condition' or 'Advice' essentially depends on the risk associated with the matter. If the matter is one that is likely or very likely to be an issue / needed to be addressed by the applicant and may require corrective action, then it is marked as a 'Condition'. If the matter is less likely and the consequences of the applicant not addressing it are lower or can be readily rectified, then it is marked as 'Advice'. If the matter is considered to be not applicable / relevant then it is not marked as either.

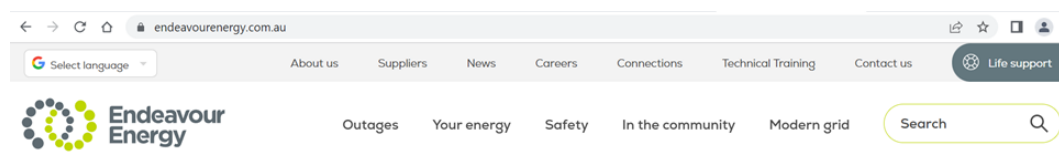
For example, the obtaining advice from the Before You Dig service in accordance with the requirements of the *Electricity Supply Act 1995* (NSW) and associated Regulations is a standard / regulatory requirement. It will be generally indicated as 'Advice'. If the Site Plan from Endeavour Energy's G/Net Master Facility Model indicates there is some uncertainty over the extent or location of the underground cables on or near the site, it would then be indicated as 'Condition' and require action to be undertaken by the applicant eg. the use of an underground asset locating device or a certified locator to verify the asset location.

### Decision

In the NSW Planning Portal for the 'Agency response', as Endeavour Energy is not a concurring authority under the provision of the *Environmental Planning and Assessment Act 1979* (NSW), it does not 'Approve' or 'Refuse' a Development Application in the Portal. It will 'Approve (with conditions)' (which may 'Object' in the submission and detail the matters requiring resolution), or if all the matters in the submission are marked as for 'Advice', the outcome of the assessment will also be 'Advice'.

### Further Advice

The 'Standard Conditions' include additional advice and contact details and further information is also available on Endeavour Energy's website at <https://www.endeavourenergy.com.au/>.

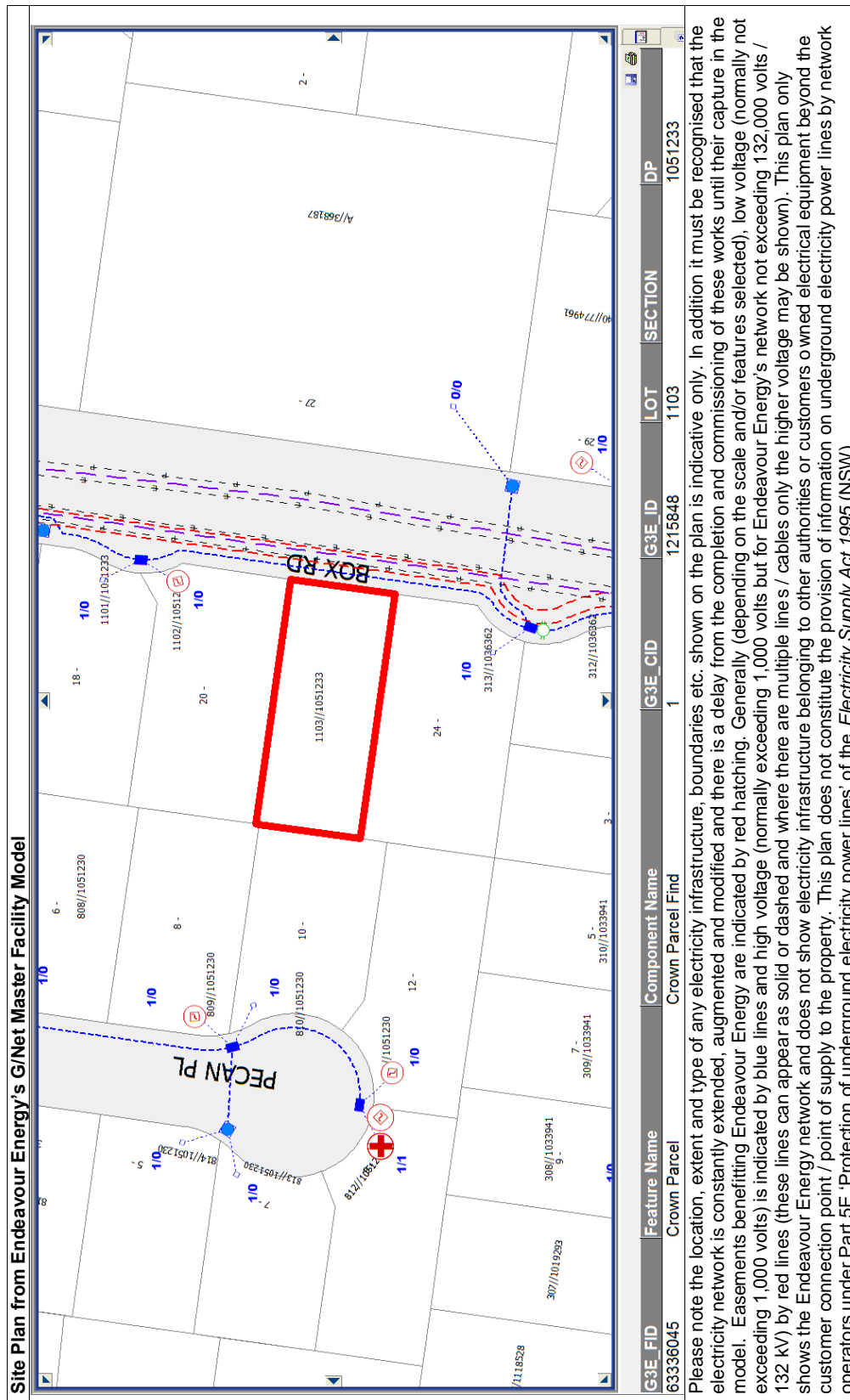


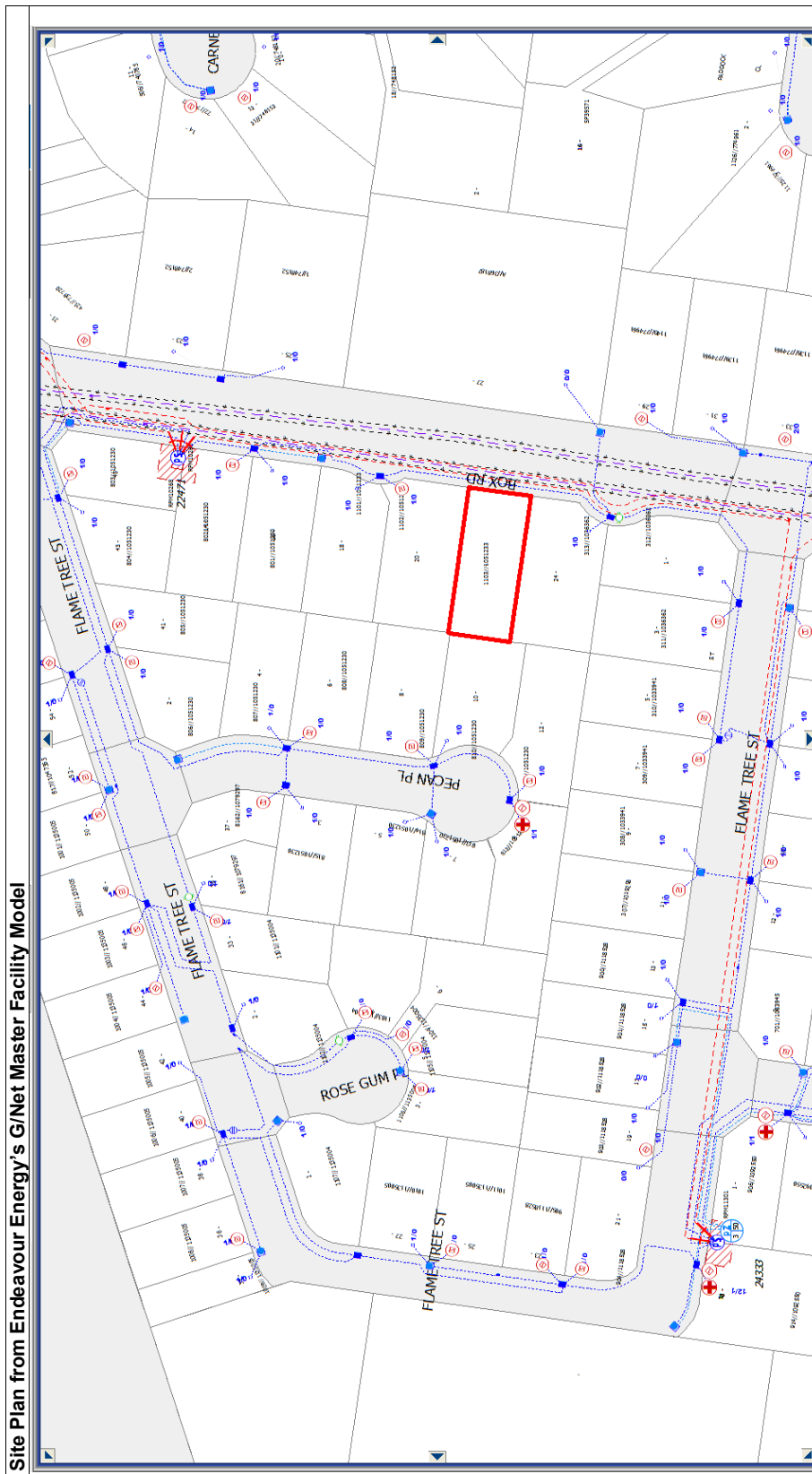
The following contacts can be reached by calling Endeavour Energy via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666.


























Branch / Section	Matters	Email
Customer Network Solutions	Electricity supply or asset relocation who are responsible for managing the conditions of supply with the applicant and their Accredited Service Provider (ASP).	<a href="mailto:cicadmin@endeavourenergy.com.au">cicadmin@endeavourenergy.com.au</a>
Easement Officers	Easement management or protected works / assets.	<a href="mailto:Easements@endeavourenergy.com.au">Easements@endeavourenergy.com.au</a>
Property	Property tenure eg. the creation or release of easements.	<a href="mailto:network_property@endeavourenergy.com.au">network_property@endeavourenergy.com.au</a>
Field Operations (to the relevant Field Service Centre).	Safety advice for building or working near electrical assets in public areas (including zone and transmission substations).	<a href="mailto:Construction.Works@endeavourenergy.com.au">Construction.Works@endeavourenergy.com.au</a>

**Please note Endeavour Energy's above contacts do not have access to the NSW Planning Portal. To resolve any matters direct contact should be made with the responsible contact. This will avoid double handling and possible delays in responding to the applicant / Council.**

Details of the Accredited Service Provider (ASP) Scheme which accredits organisations to perform contestable work on the NSW electricity distribution network are available via the following link to the Energy NSW website at <https://www.energysaver.nsw.gov.au/get-energy-smart/dealing-energy-providers/installing-or-altering-your-electricity-service>.





LEGEND	
	Padmount substation
	Indoor substation
	Ground substation
	Kiosk substation
	Cottage substation
	Pole mounted substation
	High voltage customer substation
	Metering unit
	Switch station
	Indoor switch station
	Voltage regulator
	Customer connection point
	Low voltage pillar
	Streetlight column
	Life support customer
	Tower
	Pole
	Pole with streetlight
	Customer owned / private pole
	Cable pit
	Load break switch
	Recloser
	Proposed removed
	Easement
	Subject site



## Attachment 1 - Submission Evaluation Table

Submission I.D	Name
1	Endeavour Energy
2	Transgrid (Easements)
3	NSW Department of Primary Industries (Fisheries)
4	Landowner 1
5	NSW Mining, Exploration & Geoscience
6	Wollondilly Shire Council
7	WaterNSW
8	Landowner 2
9	Landowner 3
10	Greater Sydney Parklands
11	Landowner 4
12	Landowner 5
13	University of Sydney

ID	Issue	Comments	Officer comment	Recommendation
1	Consultation	Provisions of <i>Endeavour Energy's Standard Conditions for Development Applications and Planning Proposals, Version 8, May 2023</i> are to be acknowledged in any future LEP and DCP amendments	Endeavour Energy will be consulted as part of any future changes to the DCP or LEP.	'Guiding Criteria' to be updated.
2	Consultation	Transgrid has significant land interests within the Liverpool LGA region, including substations and several transmission lines. Requests to be consulted about any planned development, rezonings or DCP amendments which would affect high voltage transmission line (HVTL) infrastructure, including associated easements and freehold landholdings.	Transgrid will be consulted as part of any future DAs and changes to the DCP or LEP.	'Guiding Criteria' to be updated
3	Riparian buffer zones	The following information may be appropriate to incorporate into the Liverpool DCP. <ul style="list-style-type: none"> <li>Riparian buffer zone widths should be implemented as outlined in DPI Fisheries P&amp;Gs s.3.2.4.2.</li> </ul>	DPI (Fisheries) comments will be incorporated as part of any DCP review. Action 1 to be expanded to include DPI (Fisheries) request.	'Guiding Criteria' and Action 1 to be updated

### Submissions Summary – Rural Lands Strategy

ID	Issue	Comments	Officer comment	Recommendation
		<ul style="list-style-type: none"> <li>Riparian buffer zones should be clearly delineated (e.g. fences or other markers) and well managed to avoid degradation (e.g. weed and stock access management).</li> <li>Revegetation of disturbed areas with local native species should also be considered as part of development controls (e.g. stabilisation of sediment, sediment filters during and postconstruction) and mitigation measures. Monitoring should be undertaken to ensure successful establishment of vegetation in these areas</li> <li>The design of riparian buffer zones should incorporate the maintenance of lateral connectivity between aquatic and riparian habitat. Installation of infrastructure, terraces, retaining walls, cycle ways, pathways and grass verges within the riparian buffer zone should be avoided or minimised.</li> <li>Where establishment or rehabilitation of a riparian zone is required, the rehabilitation strategy should include native in-stream vegetation (macrophytes) and snags where appropriate.</li> </ul>		
4	Land uses	Enquiry as to whether the land use table for the RU4 zone will be amended and if current land uses (e.g., farm sheds and residential development) will be restricted in future.	<p>The strategy provides a 'vision' for Rossmore. The existing character of Rossmore is to be maintained until land is rezoned/released by the state government as part of the Aerotropolis.</p> <p>Clause 7.24 of the Liverpool Local Environmental Plan already provides restrictions for dual occupancies in rural zones. Any restrictions of other land uses are to be investigated as part of any future review of the DCP or LEP in accordance with Action 1 of the strategy.</p>	No changes to the strategy are recommended.
4	Zoning	Request to remove ENZ zone in Rossmore and Bringelly (now Bradfield) due to lack of flooding in the locality.	<p>In 2022, the Department of Planning &amp; Environment (DPE) removed the ENZ zone from privately owned properties in Rossmore.</p> <p>Any rezoning of land in Bradfield will need to be investigated and addressed with the input of the DPE.</p>	No changes to the strategy are recommended.

Submissions Summary – Rural Lands Strategy

ID	Issue	Comments	Officer comment	Recommendation
5	Consultation	Much of the western third of the LGA is covered by exploration licences (ELs) for Group 5 minerals (including clay/shale and structural clay). MEG-GNSW recommends Council continue to consult with the holders/operators of these titles/operations (particularly the EL holders) as exploration progresses and continues to further define resource areas.	MEG-GNSW and relevant stakeholders will be consulted as part of any future changes to the DCP or LEP.	No changes to the strategy are recommended.
6	Consultation	We note the significant opportunities identified in the Strategy from the future operation of the Western Sydney International Airport. Where required, we are open to working with Liverpool Council to ensure that such opportunities from the Western Sydney International Airport are realised.	Noted. Wollondilly Council will be consulted as part of any future changes in the Aerotropolis.	No changes to the strategy are recommended.
7	Context	<p>Clarify what the Strategy means by 'rural lands' including the relationship of the Strategy to current and future rural (RU) land use zones'. This includes clarifying whether the Strategy is in fact covering a much wider array of land use zones than just 'rural' zoned land as suggested by the title of the Strategy.</p> <p>Provide a clearer context of the 'rural lands' across the LGA. This could include indicating that it applies to various land in the west of the LGA, generally being west of the Upper Canal except in the south where it extends slightly further east of the Canal (NB. the rural land is roughly bounded by Cowpasture Rd/ Wakeling Drive/Zach Rd in the east)</p> <p>Provide a clearer introduction in the 'Rural Precincts' section stating that the Strategy encompasses the Denham Court, Rossmore, Kemps Creek, Dwyer Road, Western Rural Lands, Airport/Aerotropolis Core and Agribusiness Precincts.</p> <p>Clarify the relationship of the Strategy to those lands covered by the land use and zoning controls of Western Parklands City SEPP. This includes making a clearer distinction between which precincts do and do not reside within the Aerotropolis, which precincts are initial and non-initial precincts, and more clearly explaining how the LEP and SEPP planning controls operate with respect to these matters. It would also benefit by describing whether and how the Rural Lands Strategy interplays with the Western Sydney Parklands area and the related provisions of the WPC SEPP.</p>	<p>'Introduction' of strategy will be updated to clarify that it covers a much wider array of land use zones than just 'rural' zoned land and that it applies to Denham Court and suburbs west of Austral.</p> <p>'Rural Precincts' section will be amended to include a paragraph stating that the strategy encompasses the Denham Court, Rossmore, Kemps Creek, Dwyer Road, Western Rural Lands, Airport/Aerotropolis Core and Agribusiness Precincts.</p> <p>The descriptions of each precinct already clarify if they are initial or non-initial precincts of the Western Sydney Aerotropolis. The supporting Liverpool Rural Lands Study (2020) already explores how the <i>Liverpool LEP 2008</i> and Western Sydney Aerotropolis planning controls operate with respect to each precinct (note: the Sydney South West Growth Area is not included in the study or strategy). Kemps Creek is the only precinct that shares a border with the Western Sydney Parklands. Department of Planning and Council will need to liaise with the Western Sydney Parklands Trust regarding any future plans in the Kemps Creek precinct.</p>	<p>'Introduction', 'Rural Precincts' and 'Action &amp; Delivery Plan' sections to be updated.</p>

Submissions Summary – Rural Lands Strategy

ID	Issue	Comments	Officer comment	Recommendation
		Fragmentation must be limited in rural areas that are earmarked for future urban development. This will maximise the ability of future urban designs to achieve desired social, economic and environmental outcomes.	Rationale of 'Action 9 – Manage transition to urban land' will be updated to mention that fragmentation should be limited in rural areas that are earmarked for future urban development.	
		Provide a closer examination of the rural land uses of the Denham Court Precinct at the Precinct scale, including describing the range of agricultural and other uses occurring on rural zoned land in the Precinct.	Description of precinct will be updated to clarify that there are no agricultural uses occurring in the precinct.	
		Clarify whether the 'RU' and 'C' zoned lands is currently serviced by water and sewer.	Description of precinct will be updated to clarify that the precinct is serviced by Sydney Water.	
7	Denham Court Precinct	Correcting the statement 'urbanised land is largely situated on the eastern side of the Upper Canal with rural land uses situated to the west' as the inverse is true. Noting that current zoning and development is more intensive to the west of the Canal than east of it, and that, within the Precinct, no rural zoned land occurs west of the Canal.	Description of land in relation to the Upper Canal will be amended to reflect reality. All references to land in East Leppington (west of Upper Canal) will be removed from the strategy as this land is largely urbanised.	'Denham Court' precinct section to be updated.
		Elaborating on the minimum lot sizes that occur in the Denham Court area under the LEP and how the planning controls fall to the LEP for land east of the Canal and under the WPC SEPP for land west of the Canal. This is important in relation to the degree to which Council's LEP, and the proposed Rural Lands Strategy, will be able to influence the future planning controls of the Denham Court precinct.	Description of minimum lot sizes do not need to be updated to reflect differences between East Leppington and Denham Court, as all references to land in East Leppington (west of Upper Canal) will be removed from the strategy.	
7	Zoning - Forest Lawn Cemetery	We ask Council to consider whether the RU1 zoning is appropriate for the Memorial Park given the other statements made about using RU1 land for 'prime' agriculture. If not, the Strategy could include an action to review the zoning for the Memorial Park to better align with its current use. If the RU1 Zoning is appropriate, recognition should be given to this zoning over the Memorial Park and some reasoning provided that prime agricultural uses (as advocated in other actions) are not appropriate for this area.	RU1 zoning of Forest Lawn Memorial Park will remain in situ (subject to any future LEP review). Action 7 has been amended so that it only applies to the Western Rural Lands precinct.	Action 7 to be updated.

Submissions Summary – Rural Lands Strategy

ID	Issue	Comments	Officer comment	Recommendation
7	Actions	<p>We request that the Strategy include an additional action committing to protecting the Rural Landscape character of the RU2 zoned land in the Denham Court Precinct and discouraging further fragmentation of larger lots.</p> <p>We do not support Action 7 nor believe it is appropriate in the context of the Memorial Park. We believe that Action 7 should be removed from the Denham Court precinct unless other RU1 lands occur in the Denham Court precinct that we have not identified. We also believe there should be a different action seeking to clarify the appropriateness of the RU1 zone to the Memorial Park.</p> <p>We ask that Council consider rewording Action 2 to more specifically state 'Encourage economic use of rural land for rural and related purposes.'</p> <p>Action 3 proposes to review environmental health provisions for rural land. The rationale explains that noise, odour and sewerage management systems require specific documentation. The rationale could be expanded to also mention contaminated land and water pollution risks.</p>	<p>A new action 'Action 8 - Protect scenic land' will be added to encompass the Denham Court precinct. <i>Note: subsequent actions will be renumbered to accommodate the new action.</i></p> <p>Action 7 will be amended so that it only applies to the Western Rural Lands precinct.</p> <p>Action 2 will be reworded to - 'Encourage economic use of rural land for rural and related purposes.'</p> <p>Rationale of Action 3 will be expanded to include contaminated land and water pollution risks.</p>	<p>Action and Delivery Plan to be updated..</p>
7	Guidance Criteria	<p>We request that where Scoping or Planning Proposals are proposed on land adjoining the Upper Canal Corridor, or on land mapped as 'affected land' under s2.163 of the Transport &amp; Infrastructure SEPP, that we be referred these Proposals at Scoping Proposal and, for Planning Proposals, at public exhibition stage.</p>	<p>This will be added to 'Guidance criteria' section of the strategy.</p>	<p>'Guiding Criteria' to be updated</p>
8	Land uses	<p>There should not be any LEP amendments or development approvals that result in additional noise, land contamination or odour that would present a problem for current landowners or for urban development in the future.</p> <p>The draft Rural Lands Strategy seeks to encourage non-agricultural land uses such as garden centres, nurseries, roadside stalls and agritourism. Careful planning is needed to avoid such substantial land-uses compromising the future detailed planning of the future urban area in the Rossmore Precinct and becoming major non-conforming land-uses within residential areas.</p>	<p>The strategy provides a 'vision' for Rossmore. The existing character of Rossmore is to be maintained until land is rezoned/released as part of the Aerotropolis.</p> <p>Any restrictions on land uses are to be investigated as part of any future review of the DCP or LEP in accordance with Action 1 of the strategy. Landowners in Rossmore will be consulted as part of any future changes to the DCP or LEP, as per the Liverpool Community Participation Plan, to ensure that any land use impacts are accounted for.</p>	<p>No changes to the strategy are recommended.</p>

Submissions Summary – Rural Lands Strategy

ID	Issue	Comments	Officer comment	Recommendation
9	Zoning	Having thoroughly reviewed the draft, we firmly advocate for the properties in Rossmore to retain their current RU4 - Primary Production Small Lots zoning rather than being labelled as agricultural zones.	Page 29 of the draft Liverpool Rural Lands Strategy provides a 'vision' for Rossmore. The existing character of Rossmore is to be maintained until land is rezoned/released by the state government as part of the Aerotropolis. Accordingly, Council has no plans to remove the RU4 zoning from Rossmore until it is rezoned by the state government.	No changes to the strategy are recommended.
10	Nil	No objections or concerns raised by Greater Sydney Parklands (GSP)	Noted	No changes to the strategy are recommended.
11	Zoning	Council must not adopt the strategy in its current form. Rossmore is within the Western Sydney Aerotropolis with a large part of the precinct already zoned for Agribusiness. There is absolutely no need for council to earmark Rossmore for Agribusiness.  The strategy does not specify which properties will be marked for "Agribusiness". Thus, leaving interpretation wide open for manipulation at the expense of private landowners and benefit of future developers.	The strategy does not specify that Rossmore should be rezoned to Agribusiness, the strategy calls for a retain and manage approach to prior to the precinct being released/rezoned for urban purposes.	No changes to the strategy are recommended.
11	Fragmentation of land	While the strategy seeks to protect and reduce the risk of fragmentation of land in the future, this is already protected by the State Government's SEPP and development controls, that does not allow development of small lots.	Noted. The strategy reinforces this aspect to ensure that any planning proposals lodged do not seek to further fragment land.	No changes to the strategy are recommended.
11	Consultation	Council has not been completely successful in communicating with residents. While there has been a public exhibition in accordance with legislation, there has not been any adequate face to face consultative process. Exhibition has predominantly occurred online, which is unacceptable.	The draft strategy was exhibited online for 60 days with hard copies being available at Carnes Hill Shopping Centre and local post offices in Austral, Luddenham, Leppington, Kemps Creek, Bringelly and West Hoxton. The strategy was also emailed to regular attendees of Council's Rural forums. Contact details for Council staff were provided online, via email and on posters, to ensure that face-to-face appointments could be made if needed. Accordingly, it is considered that maximum effort was made to inform the public of the draft strategy.	No changes to the strategy are recommended.

Submissions Summary – Rural Lands Strategy

ID	Issue	Comments	Officer comment	Recommendation
12	Zoning	The State Government has earmarked Rossmore for urban development in the future, not 'Agribusiness' or 'Environmental and Recreation'. In speaking with various business owners (i.e., developers and real estate agents), should council adopt the strategy, this could have significant impact on the value of privately owned land.	Page 29 of the draft Liverpool Rural Lands Strategy provides a 'vision' for Rossmore. The existing character of Rossmore is to be maintained until land is rezoned/released by the state government as part of the Aerotropolis. Accordingly, Council has no plans to rezone Rossmore to 'Agribusiness' or 'Environment and Recreation'.	No changes to the strategy are recommended.
12	Prioritisation	Why is Council undertaking this strategy for Rossmore and not undertaking research to upgrade and increase housing?	The development of a rural land strategy is required in accordance with action 16.1 of the Liverpool Local Strategic Planning Statement (LSPS). Housing delivery is accounted for in the Liverpool Local Housing Strategy which was adopted by Council in 2020.	No changes to the strategy are recommended.
12	Fragmentation of land	The strategy discusses a need to avoid further fragmentation and intensification of rural residential land uses and therefore the "existing character of the precinct is to be maintained until land is rezoned for urban purposes as part of the Western Sydney Aerotropolis. This should be the continued drive for Council, not the possibility of keeping or zoning RU4 anything other than it is until such times as Rossmore is released.	Page 29 of the draft Liverpool Rural Lands Strategy provides a 'vision' for Rossmore. The existing character of Rossmore is to be maintained until land is rezoned/released by the state government as part of the Aerotropolis. Accordingly, Council continues to acknowledge the state government's plans for Rossmore.	No changes to the strategy are recommended.
12	Land Acquisition	Future planning for the expansion of Fifteenth Avenue into Bradfield is paramount, however this should not be at the expense of private landowners. Should this be the case, then Council must compensate private landowners at the market rate for RU4 land.	The Fifteenth Avenue upgrade, otherwise known as the Fifteenth Avenue Smart Transit (FAST) corridor is an initiative being undertaken by both Liverpool Council and Transport for New South Wales (TfNSW).  Although Council is the current road authority for Fifteenth Avenue, TfNSW is likely to be the land acquisition authority in future. The relevant land acquisition authority will contact landowners to discuss compensation at an appropriate time.	No changes to the strategy are recommended.
12	Consultation	Residents who maybe directly impacted by strategy should be consulted prior to Council adopting strategy, this has not occurred. Many residents within the area	The draft strategy was exhibited online for 60 days with hard copies being available at Carnes Hill Shopping Centre and local post offices in Austral, Luddenham, Leppington,	No changes to the strategy are recommended.

Submissions Summary – Rural Lands Strategy

ID	Issue	Comments	Officer comment	Recommendation
		are either of an older contingent or English is not their first language and therefore the 28-day consultation is moot and considered to be unfair.	Kemps Creek, Bringelly and West Hoxton. The strategy was also emailed to regular attendees of Council's Rural forums. Contact details for Council staff were provided online, via email and on posters, to ensure that face-to-face appointments could be made if needed. Accordingly, it is considered that maximum effort was made to inform the public of the draft strategy.	
13	Nil	No objections or concerns raised by University of Sydney (USYD)	Noted.	No changes to the strategy are recommended.

# LIVERPOOL RURAL LANDS STRATEGY



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**RURAL LANDS STRATEGY****LIVERPOOL  
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## Executive Summary

Liverpool is growing rapidly with a population that requires more housing, businesses, jobs and social infrastructure. The Liverpool Local Government Area (LGA) is undergoing a profound transformation as the Liverpool City Centre continues to develop as a Metropolitan Cluster and the Western Sydney International (Nancy-Bird Walton) Airport brings with it the Western Sydney Aerotropolis. This surge in investment and population growth needs to be accommodated within the expanding urban footprint of the LGA. Furthermore, Liverpool's growing population is reliant on local markets for high-quality and locally accessible produce. This strategy aims to protect and enhance existing rural and scenic lands to meet the current and future demands of Liverpool in terms of the provision of alternative recreational activities, local produce and employment opportunities for the local population.

The Liverpool Rural Lands Strategy sits within a broader strategic framework at the State, Regional and Local level. These various plans and strategies have contributed to the formulation of this strategy by providing broader guiding principles that contextualise rural land within the Liverpool LGA. This strategy is informed directly by the data, insights and recommendations presented within the Rural Lands and Green Grid studies prepared for Council in 2020. These studies provide a robust technical basis for the vision, strategies and actions within this strategy.

### Broad Vision

This strategy forms the basis for a review of planning provisions that apply to the rural precincts in Liverpool. It provides a review of the current planning and policy context applying to Liverpool's rural and scenic lands. Findings derived from the Rural Lands and Green Grid studies are applied through this strategy to inform the management and improvement of rural lands. A strategic vision has been described for each rural precinct, supported by actions. Strategies and an implementation plan guide the application of this strategy into planning policy.

### Actions

**Action 1:** Review existing Liverpool Local Environmental Plan (LEP) and Development Control Plan (DCP) provisions for rural land

**Action 2:** Encourage economic use of rural land for rural and related purposes  
~~Encourage economic use of rural land~~

**Action 3:** Review environmental health provisions for rural land

**Action 4:** Ensure green and blue grid networks are supported

**Action 5:** Investigate appropriate land-uses in Cecil Park, including addressing transition of development controls from Liverpool LGA to Penrith LGA

**Action 6:** Protect rural heritage

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**Action 7:** Identify the Western Rural Lands RU1 zone and Metropolitan Rural Area as 'prime' agricultural land

**Action 8:** Protect scenic land

**Action 98:** Manage transition to urban land

**Action 109:** Increase resources dedicated to handling compliance matters in the rural areas

**Action 110:** Investigate placemaking opportunities in Wallacia and Luddenham, including addressing transition of development controls from Liverpool LGA to Penrith LGA and Camden LGA

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## Introduction

This Liverpool Rural Lands Strategy (the strategy) guides the retention, improvement, rezoning and development of rural lands in the Liverpool Local Government Area (LGA) over the next 20 years. The strategy considers a variety of metropolitan and local level policy and incorporates the findings of the *Liverpool Rural Lands Study* (2020) and the *Liverpool Green Grid Implementation Study* (2020).

The 'rural lands' of Liverpool are not limited to rural zoned land. It also includes land in the Western Sydney Aerotropolis that is transitioning to urban land and existing residential and conservation zoned land in Denham Court, Bringelly, Greendale and Silverdale.

The way in which land and buildings are used and developed in rural precincts is steadily changing in response to several key drivers, both domestically and internationally. These drivers include globalisation and impacts of global competition, population growth and increased construction activity. There has also been significant investment in major infrastructure projects and land releases in Greater Sydney, including the Western Sydney Aerotropolis and the South West Growth Area. These investment projects will contribute to the changing fabric of rural lands in the Liverpool LGA.

The strategy applies to land including Denham Court and suburbs west of Austral and aims to ensure that agricultural lands are recognised for their economic value, as well as their intrinsic and landscape values. The actions are tailored to consider highest and best land uses in rural zones, the objectives of the Metropolitan Rural Area and any other plans/zoning across adjoining Council boundaries.

A significant amount of Liverpool's rural lands is earmarked for future urban development, therefore it is important that remaining rural and scenic lands are protected from urban development and that there are clear boundaries between urban, non-urban and scenic lands.

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## Relationship to Key Policies

The Liverpool Rural Lands Strategy sits within the broader strategic framework at the State, Metropolitan and Local level. These various plans and strategies have contributed to the formulation of this strategy by providing broader guiding principles that contextualise the management of rural land within the Liverpool Local Government Area (LGA).

### State Policies

#### *Right to Farm Act and Policy*

The concept of 'right to farm' has multiple facets, but the common interpretation – and the one used in this strategy – relates to a desire by farmers to undertake lawful agricultural practices without conflict or interference arising from complaints from neighbours and other land users. Therefore, the NSW Government has developed a comprehensive, state-wide approach to deal with the issue of right to farm. The Right to Farm policy brings together a collection of actions including:

- reinforcing rights and responsibilities;
- establishing a baseline and ongoing monitoring and evaluation of land use conflicts;
- strengthening land use planning;
- ensuring ongoing reviews of relevant environmental planning instruments include consideration of options to ensure best land use outcomes and to minimise conflicts;
- improving education and awareness on management of land use conflicts; and
- considering potential future legislative options, should additional Government intervention be required.

Particularly in the Liverpool LGA, land use conflict arises due to the relationship between existing rural lands/industries and oncoming urban initiatives for the LGA's growth areas. This may exert additional pressure on agricultural practitioners to relocate, leave, or at the very least diversify their industry.

Part of this strategy will be to establish a baseline and ongoing monitoring and evaluation by fostering increased cooperation with the State and Local Governments, and other stakeholders for the monitoring of nuisance complaints related to farming. This also entails identifying any additional measures required to assist in best practice land use planning to address conflict.

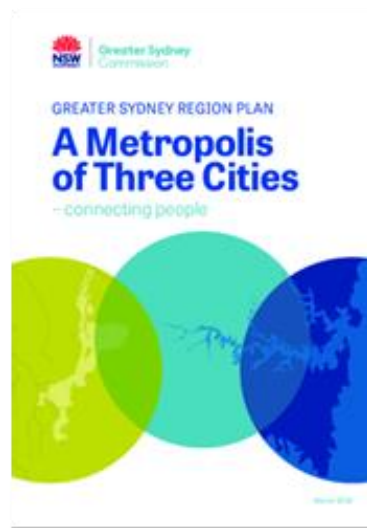
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## Metropolitan Policies

*Greater Sydney Region Plan: A Metropolis of Three Cities (GSRP)*

The Greater Sydney Region Plan was developed by the former Greater Sydney Commission (GSC) and sets a 40-year vision (to 2056) to align land use, transport and infrastructure planning and delivery across Greater Sydney. The vision is structured around a metropolis of three cities: The Western Parkland City, Central River City and Eastern Harbour City. Liverpool is identified in the plan as part of the Metropolitan City Cluster of the Western Parkland City. The Western Parkland City will be structured on a poly-centric city model, in which economic growth will be underpinned by the existing centres of Liverpool, Campbelltown-Macarthur, Greater Penrith and the future Western Sydney Airport-Badgerys Creek Aerotropolis.



The Plan discusses the importance of rural land to the Greater Sydney economy. It specifies that management of rural land across Greater Sydney will need to reflect local context and provide for a wide range of land uses which are vital to Sydney's overall productivity and the protection of scenic lands.

The Liverpool Rural Lands Strategy responds to the following directions and objectives of the GSRP:

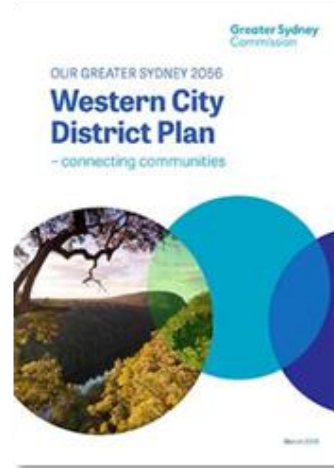
Table 1 – Relevant GSRP directions and objectives

Direction	Objective
<b>Direction 7</b> - Jobs and skills for the city	<b>Objective 20</b> - Western Sydney Airport and Badgerys Creek Aerotropolis are economic catalysts for Western Parkland City
	<b>Objective 24</b> - Economic sectors are targeted for success
<b>Direction 8</b> - A city in its landscape	<b>Objective 26</b> - A cool and green parkland city in the South Creek corridor
	<b>Objective 27</b> - Biodiversity is protected, urban bushland and remnant vegetation is enhanced
	<b>Objective 28</b> - Scenic and cultural landscapes are protected
	<b>Objective 29</b> - Environmental, social and economic values in rural areas are protected and enhanced
	<b>Objective 32</b> - The Green Grid links parks, open spaces, bushland and walking and cycling paths

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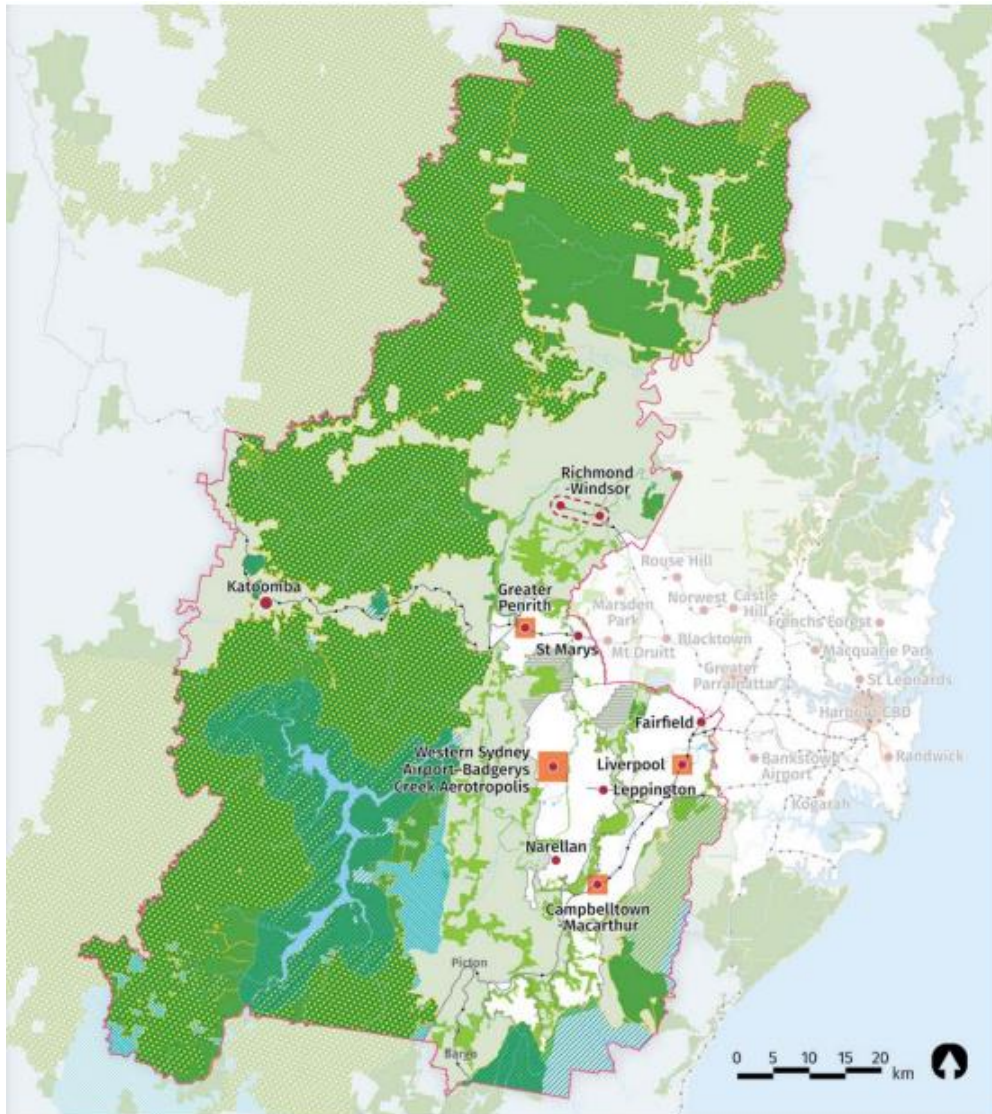
The Western City District Plan provides a link between metropolitan strategy and local planning. The District Plan articulates how the objectives of the Greater Sydney Region Plan are to be achieved through a series of objectives and actions under four themes: infrastructure, liveability, productivity and sustainability. The LGAs that make up the Western City District are the Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly. The size of the district has been driven by the proposed Western Sydney Airport and the future Western Sydney Aerotropolis.



The Plan identifies the Metropolitan Rural Area (MRA) which lies on the fringe of the Western Parkland City. The MRA refers to the non-urban areas at the periphery of the Greater Sydney Region and typically includes agricultural activities such as egg production, poultry, cut flowers, turf, mushroom farms and agritourism. The far-western portions of the Liverpool LGA are included in the MRA.

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<span style="color: red;">—</span> District Boundary	<span style="border: 1px solid yellow; border-radius: 50%; padding: 2px;"> </span> Protected Natural Area	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;"> </span> Urban Investigation Area
<span style="background-color: orange; border: 1px solid black; border-radius: 50%; padding: 2px;"> </span> Metropolitan Cluster	<span style="background-color: green; border-radius: 50%; padding: 2px;"> </span> National Parks and Reserves	<span style="background-color: lightgreen; border-radius: 50%; padding: 2px;"> </span> Metropolitan Rural Area
<span style="color: red;">●</span> Strategic Centre	<span style="background-color: green; border: 1px dashed green; border-radius: 50%; padding: 2px;"> </span> Blue Mountains World Heritage Area	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;"> </span> Urban Area
<span style="background-color: lightblue; border-radius: 50%; padding: 2px;"> </span> Waterways	<span style="background-color: lightblue; border: 1px dashed blue; border-radius: 50%; padding: 2px;"> </span> Drinking Water Catchment – No Entry	<span style="background-color: lightgreen; border: 1px dashed green; border-radius: 50%; padding: 2px;"> </span> Biodiversity Investment Opportunities Cumberland Subregion
<span style="background-color: lightgreen; border: 1px dashed green; border-radius: 50%; padding: 2px;"> </span> Holsworthy Military Reserve	<span style="background-color: lightblue; border: 1px dashed blue; border-radius: 50%; padding: 2px;"> </span> Drinking Water Catchment – Restricted	

Figure 1 - Western City District Protected Natural Area and Metropolitan Rural Area (GSC)

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The Liverpool Rural Lands Strategy responds to the following priorities and actions of the WCDP:

Table 2 - Relevant WCDP priorities and actions

Priority	Action
<b>W8 -</b> <i>Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis</i>	<b>Action 35</b> - Protect and support agricultural production and mineral resources (in particular, construction materials) by preventing inappropriately dispersed urban activities in rural areas
	<b>Action 36</b> - Provide a regulatory environment that enables economic opportunities created by changing technologies
	<b>Action 39</b> - When preparing plans for tourism and visitation, consider: <ul style="list-style-type: none"> <li>• encouraging the development of a range of well-designed and located facilities</li> <li>• enhancing the amenity, vibrancy and safety of centres and township precincts</li> <li>• supporting the development of places for artistic and cultural activities</li> <li>• improving public facilities and access</li> <li>• protecting heritage and biodiversity to enhance cultural and eco-tourism</li> <li>• supporting appropriate growth of the night-time economy</li> <li>• developing industry skills critical to growing the visitor economy</li> </ul>
<b>W13 -</b> <i>Creating a Parkland City urban structure and identity, with South Creek as a defining spatial element</i>	<b>Action 71</b> - Implement the South Creek Corridor Project and use the design principles for South Creek to deliver a cool and green Western Parkland City
<b>W15 -</b> <i>Increasing urban tree canopy cover and delivering Green Grid connections</i>	<b>Action 74</b> - Progressively refine the detailed design and delivery of: <ul style="list-style-type: none"> <li>• Greater Sydney Green Grid priority corridors and projects important to the District</li> <li>• opportunities for connections that form the long-term vision of the network</li> <li>• walking and cycling links for transport as well as leisure and recreational trips</li> </ul>

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	<b>Action 75</b> - Create Greater Sydney Green Grid connections to the Western Sydney Parklands
<b>W14</b> - <i>Protecting and enhancing bushland and biodiversity</i>	<b>Action 72</b> - Protect and enhance biodiversity by: <ul style="list-style-type: none"> <li>• supporting landscape-scale biodiversity conservation and the restoration of bushland corridors</li> <li>• managing urban bushland and remnant vegetation as green infrastructure</li> <li>• managing urban development and urban bushland to reduce edge-effect impacts</li> </ul>
<b>W16</b> – <i>Protecting and enhancing scenic and cultural landscapes</i>	<b>Action 77</b> - Enhance and protect views of scenic and cultural landscapes from the public realm
<b>W17</b> – <i>Better managing rural areas</i>	<b>Action 78</b> - Maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic outcomes
	<b>Action 79</b> - Limit urban development to within the Urban Area, except for the investigation areas at Horsley Park, Orchard Hills, and east of The Northern Road, Luddenham

***Cumberland Plain Conservation Plan (CPCP)***

The Cumberland Plain Conservation Plan (CPCP) seeks to support the delivery of housing, jobs and infrastructure within the Cumberland Plains. It provides biodiversity approvals that will form the basis of conservation efforts across the Western Parkland City. The plan requires consent authorities to consider biodiversity values when determining development applications and planning proposals for land within strategic conservation areas.

Ensuring land use planning and decision making supports ecological health and protects biodiversity will allow Liverpool's rural areas to thrive, particularly as it underpins the basis for many of the rural livelihoods of residents. As Liverpool is a Council undergoing immense future developmental transformation, it relies upon the preservation of existing natural areas to define rural character.

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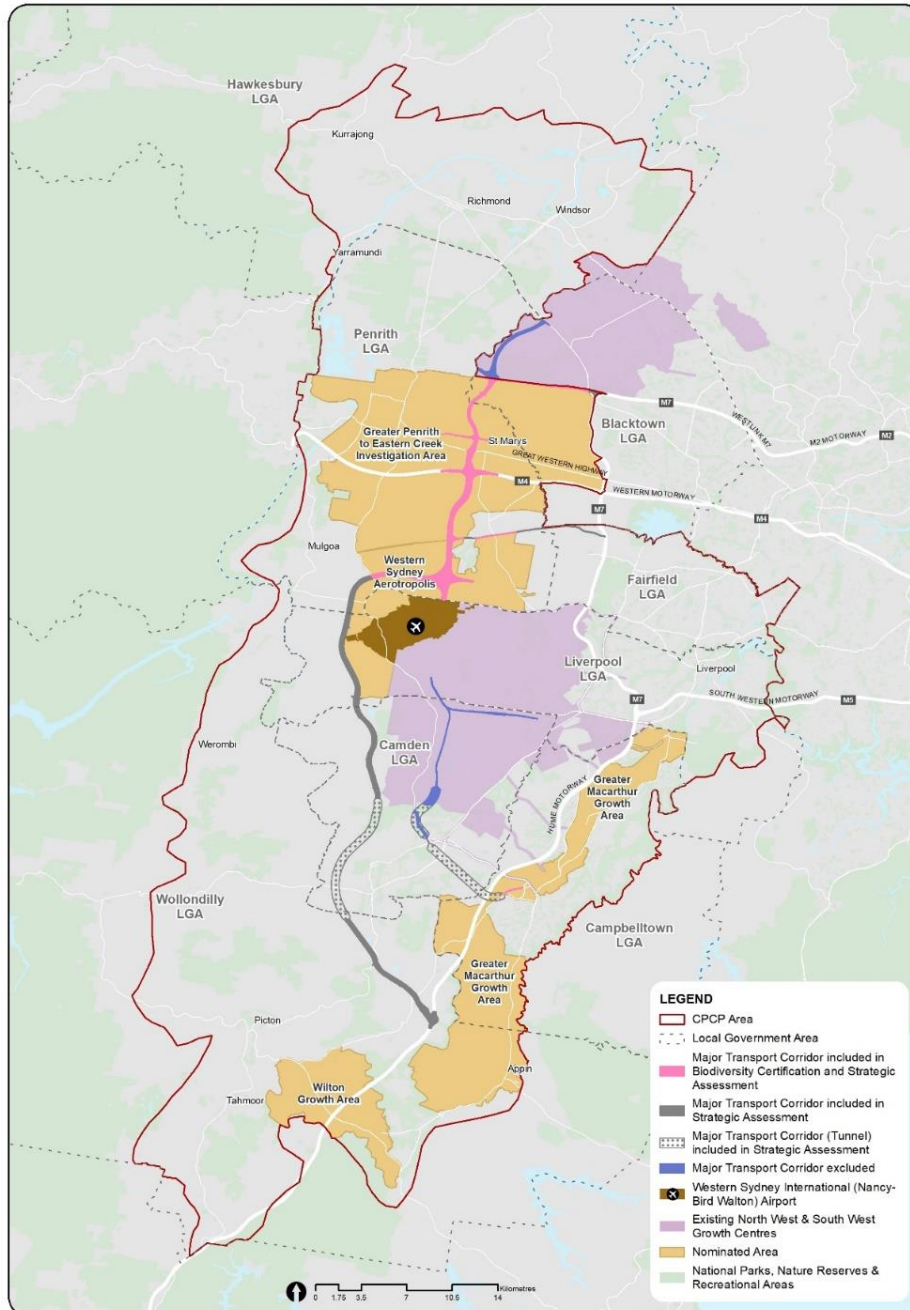
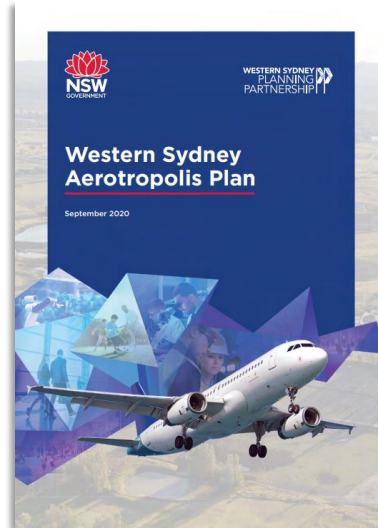


Figure 2 - Map of CPGP Area (DPE)

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The Western Sydney Aerotropolis straddles the Liverpool and Penrith LGAs. The Western Sydney Aerotropolis Plan (WSAP) sets out precinct priorities for each part of the Aerotropolis. The WSAP aligns with the Greater Sydney Regional Plan objectives and directions, creating a more detailed series of planning principles for the Aerotropolis. The WSAP contains the Structure Plan, which show where new zones are to be applied based on the SEPP, as well as the location (in most cases still high level) of planned infrastructure and the vision and preferred land uses for each precinct. It sets parameters for appropriate, shorter-term development outcomes, while seeking to preserve longer-term opportunities.



In summary:

- Rural uses will be directed west of the Aerotropolis;
- The mixed-use component of the Aerotropolis core will be located outside of the noise exposure contour;
- Approximately 80 per cent of the land will be used for employment services;
- Residential development will be outside of the 20 ANEF1 area; and
- In the Liverpool LGA, Kemps Creek, Rossmore and Dwyer Road have been identified as non-initial precincts.

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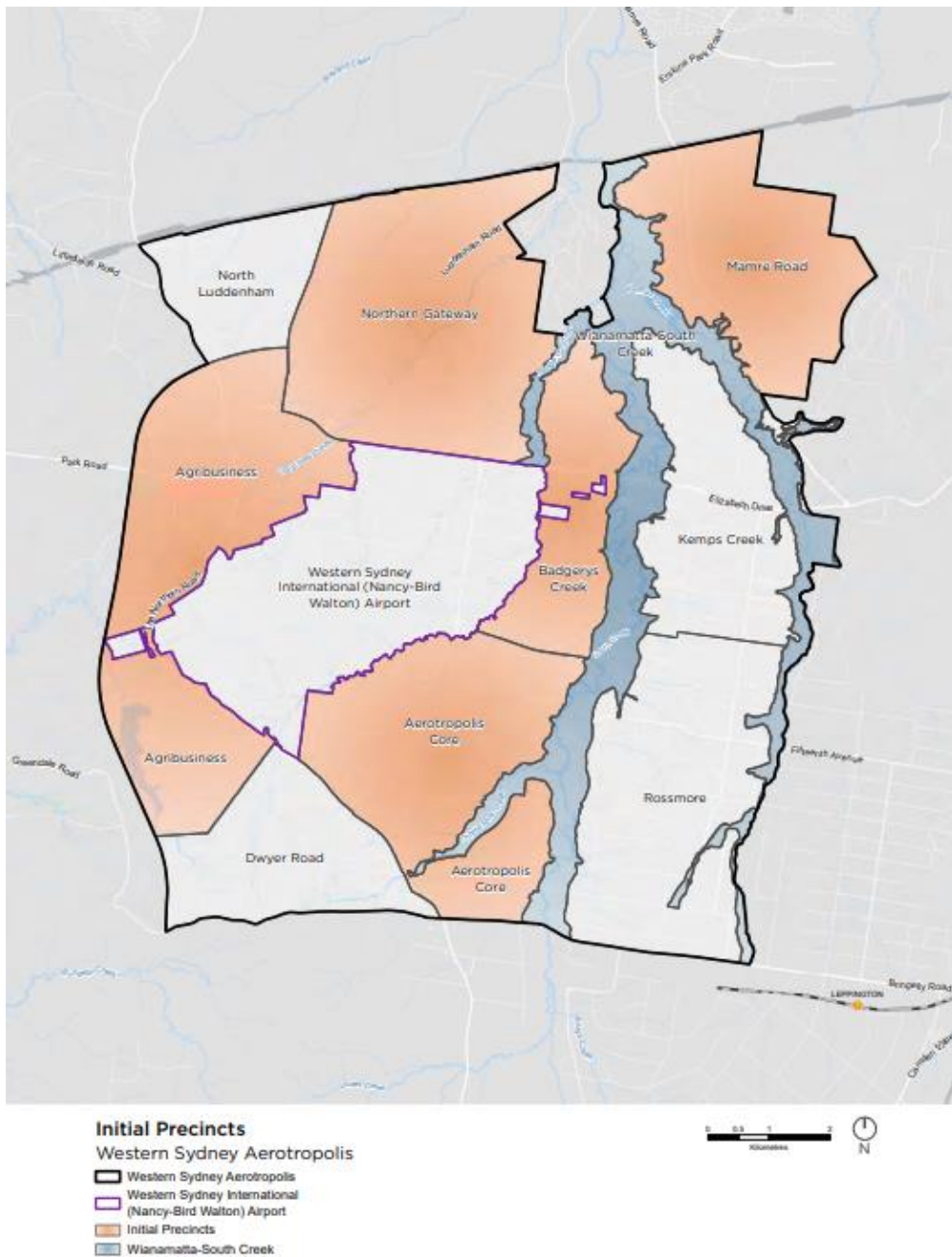


Figure 3 – Initial Aerotropolis Precincts (Department of Planning & Environment)

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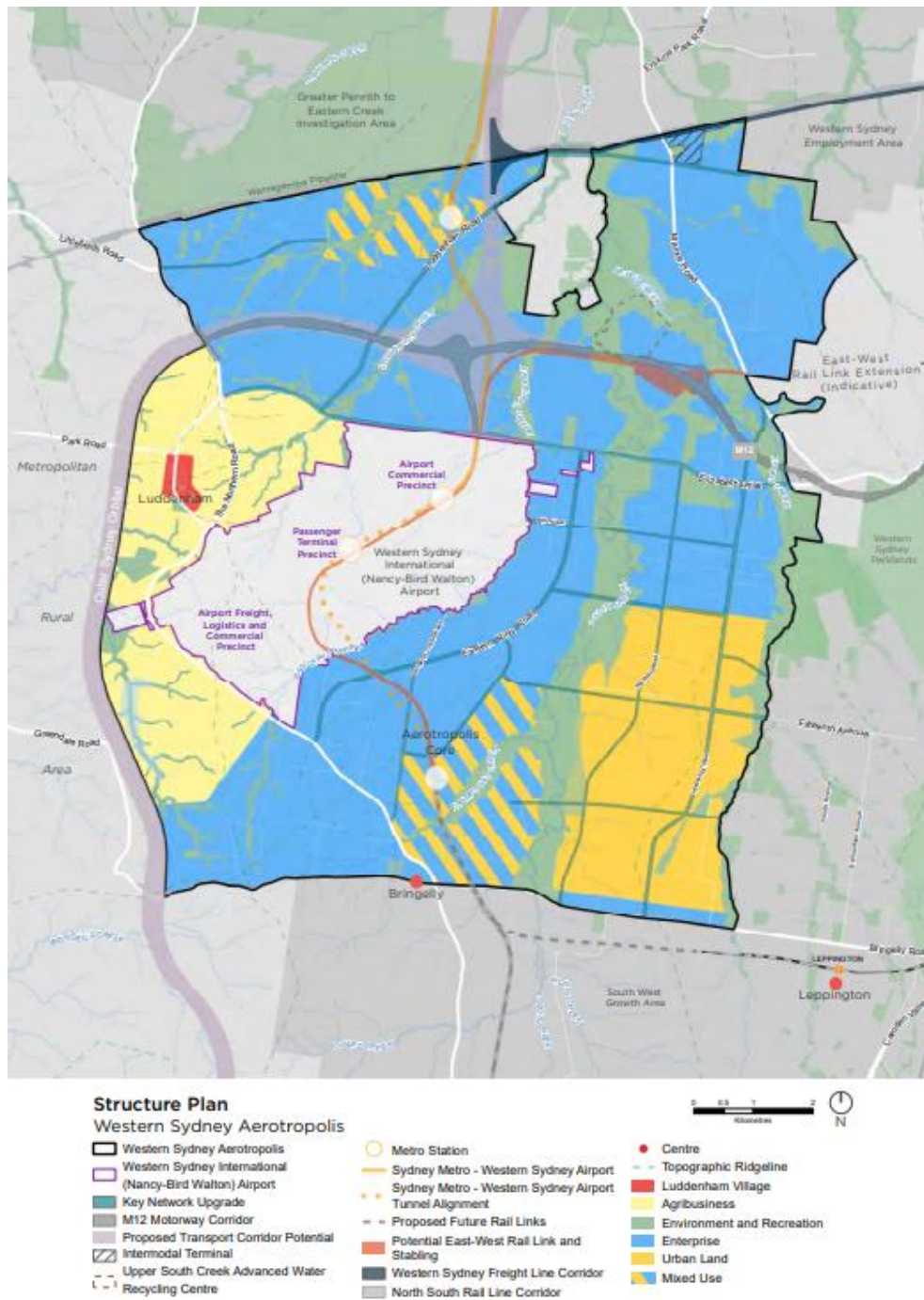


Figure 4 – Aerotropolis Structure Plan (Department of Planning & Environment)

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The LSPS is Council's long-term plan to shape Liverpool's future which will help guide the development of suburbs and balance the need for housing, jobs and services as well as parks, open spaces and the natural environment. The LSPS recognises the contribution of peri-urban agriculture to city resilience, sustainability, liveability and the economy; this ensures that valuable agricultural lands are protected. Accordingly, the strategy addresses the following LSPS actions:

**Action 16.1** – Develop Rural Lands Strategy and review LEP to ensure alignment

**Action 16.2** – Investigate placemaking opportunities in Wallacia and Luddenham, including addressing transition of development controls from Liverpool LGA to Penrith LGA and Camden LGA



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## Findings of Relevant Technical Studies

This strategy is informed directly by the data, insights and recommendations presented within two key studies that have been prepared for Council in recent years. These studies provide a robust technical basis for the vision, strategies and implementation actions within this strategy.

### *Liverpool Rural Lands Study (2020)*

The study was prepared by SGS Economics and RM Consulting in April 2020 to understand the likely effects of the Western Sydney International (Nancy-Bird Walton) Airport project on local agricultural productivity. The study also includes an analysis of current land uses, economic activity, agricultural activity, food production, rural based tourism, and employment (existing direct and indirect jobs in the rural area).

Building on place-based planning directions from the Greater Sydney Region Plan and Western City District Plan, the study identifies the different landscape qualities of precincts across Liverpool's rural area, highlighting where the Western Sydney Aerotropolis and current local plans diverge.



### *Key insights*

- Liverpool's most agriculturally productive land is fragmented and abuts the edge of the residential growth corridor coming from the east (Kemps Creek, Badgerys Creek and Rossmore).
- Rural land to the west (Wallacia and Greendale) is less fragmented, however is also less agriculturally productive due to low land capability.
- The WSAP emphasises that the rural land around the Agribusiness precinct should be protected for its ongoing use for industry and agriculture into the future, with uses that complement the Agribusiness precinct and/or benefit from their proximity to the airport (in some areas).

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- The Liverpool Local Environmental Plan permits a range of non-agricultural uses including dual occupancies, which allows for greater residential intensification on RU1 and RU4 zoned land. In the context of preserving rural activities in the Western Rural Lands, and managing transition to Aerotropolis uses, this flexibility may lead to greater residential and agricultural land use conflicts, against the core purpose of those zones.

The key insights and descriptions of rural precincts in the study have been used to inform the recommend actions and deliverables in this strategy.

### *Green Grid Implementation Study (2020)*

The study was prepared by McGregor Coxall in 2020 to provide insight into the current state of Liverpool's Green Grid, identify opportunities to expand and improve the Green Grid, and implement actions that will ensure priorities are achieved successfully. The Green Grid consists of the following layers:

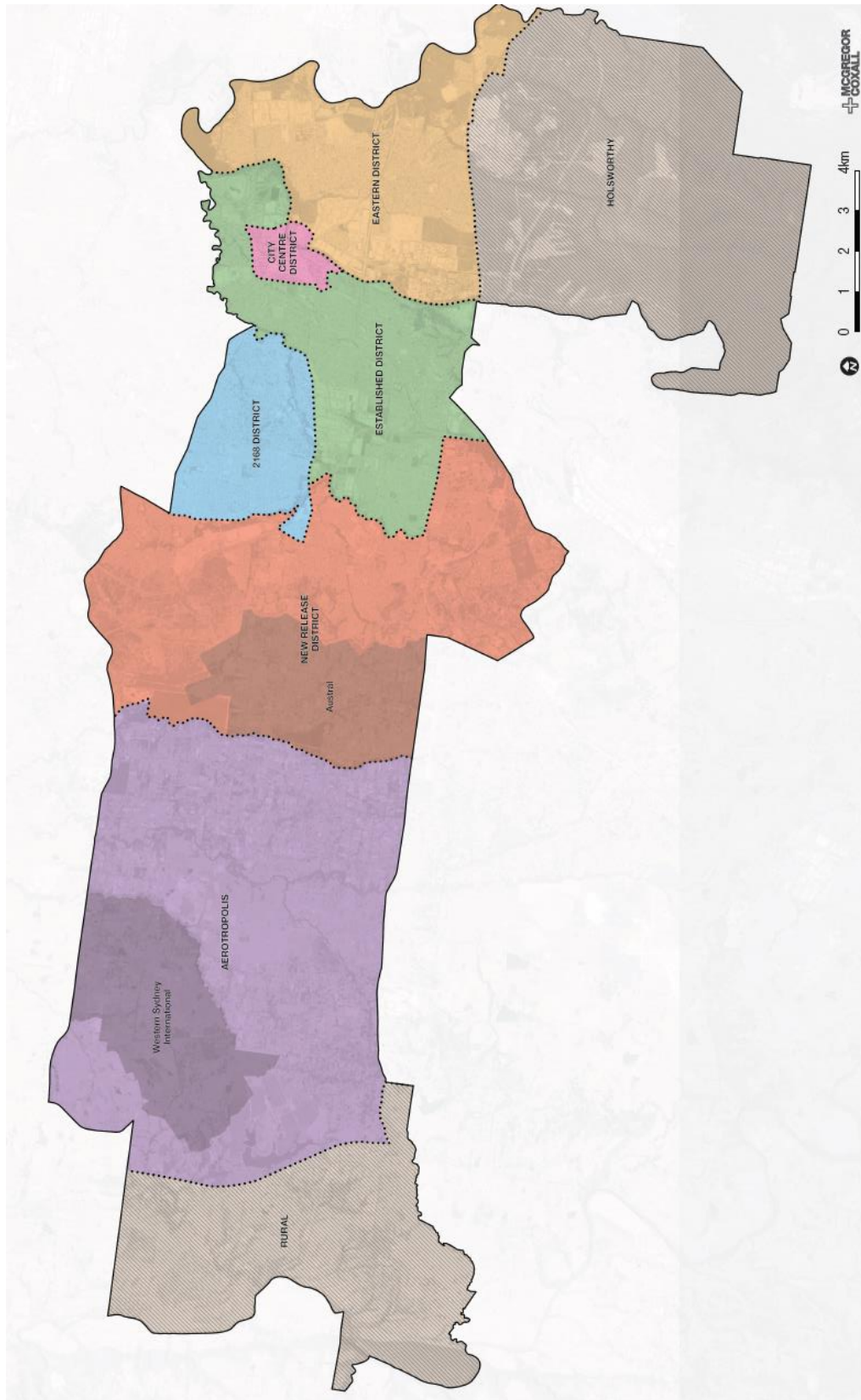
- Ecological grid (e.g., biodiversity, biological hierarchy and organisation, ecosystems (forest, grassland and wetland, aquatic and freshwater));
- Hydrological/blue grid (Including stormwater detention network);
- Recreational grid (e.g., parks, gardens, squares, plazas, public and private courtyard and forecourt, sports and playing fields, riparian corridor passive recreation); and
- Connectivity and access grid (e.g., street and laneway network, cycleway network, infrastructure easements, key activity nodes such as town centres, street tree planting, topography, transport nodes and network).

The implementation study divides the Liverpool LGA into 8 districts (Figure 5).

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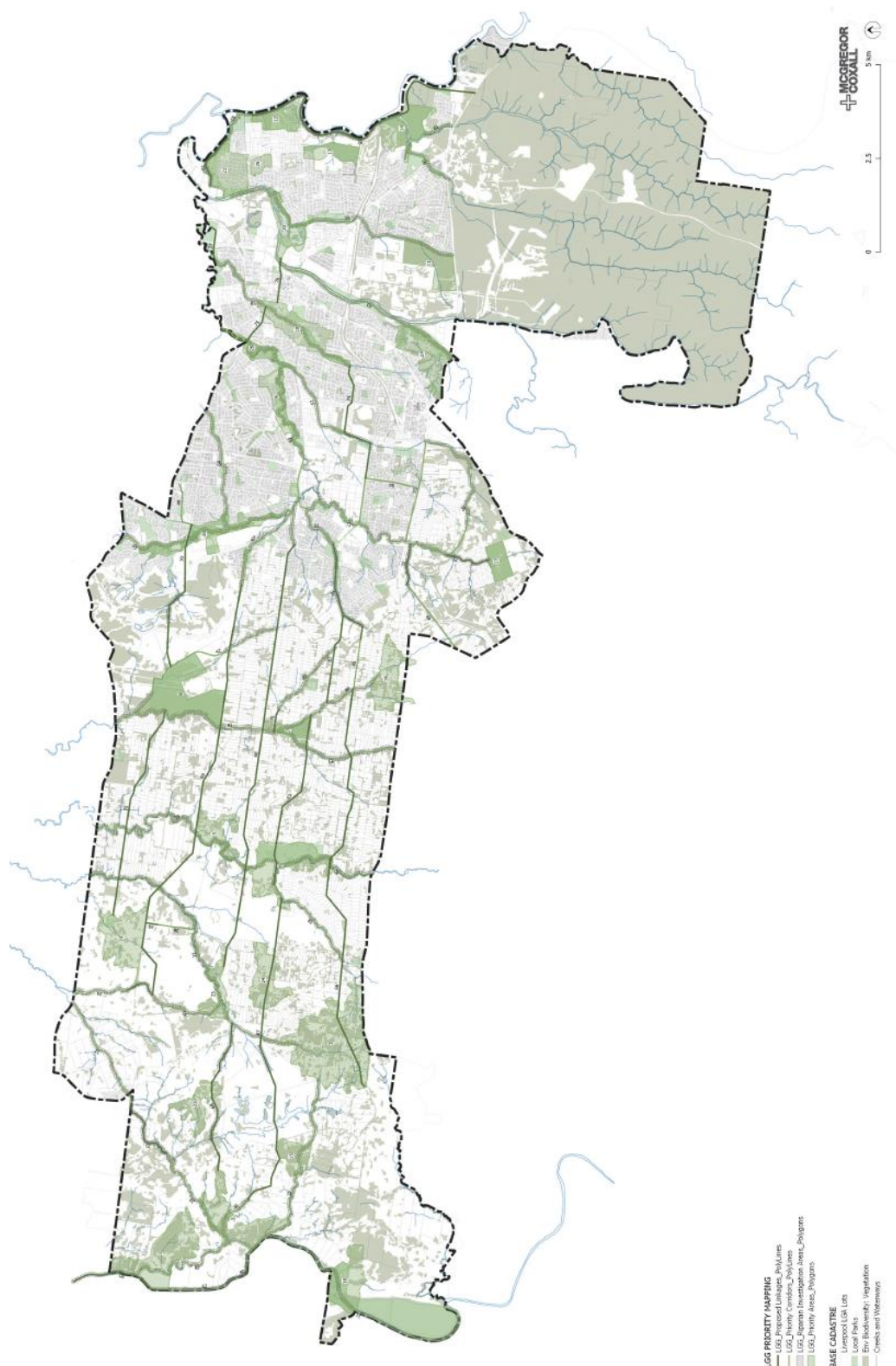
The Rural, Aerotropolis and New Release districts are relevant to the Liverpool Rural Lands Strategy. Opportunities for each district are described as follows:

**Rural:** Connect remnant bushland and ecological corridors, restore riparian areas and improve water quality management along river/creeks. Priority projects in this district include the revitalisation of riparian corridors along the Hawkesbury-Nepean River and its tributaries.

**Aerotropolis:** Provide green corridors, regional parks, conservation areas, and walking/cycling links. Priority projects in this district include the delivery of The Northern Road Green Boulevard, South Creek Corridor and Kemps Creek Nature Reserve.

**New Release:** Enhance open space corridors and active transport along creek lines and improve east-west connections. Priority projects in this district include the Upper Ceanal revitalisation and establishment of Edmondson Regional Park

The above opportunities are to be incorporated into future LEP and DCP amendments as outlined in the action and delivery plan of this strategy.



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## Rural Lands Snapshot

### Economic and Agricultural context

In 2015-16 the Sydney Basin produced 34 per cent of NSW vegetables, 25 per cent of NSW poultry and 63 per cent of NSW strawberries of which, Liverpool contributed:

- 15 per cent of vegetables including mushrooms, lettuces and tomatoes;
- 23 per cent of poultry; and
- 19 per cent of strawberries.

Liverpool's top commodities by gross value of agricultural production include poultry, mushrooms, nursery, tomatoes, cut flowers, lettuces and strawberries. The diversity of agricultural products has reduced over time as production has moved from largely soil-based to protected cropping or 'indoor' farming. Commodities that are no longer produced or largely disappeared from Greater Sydney include: orchard fruit such as nectarines and peaches; livestock such as pig and sheep; vegetables including artichokes, beetroot, butter beans, cabbages, cauliflowers, Chinese cabbage (bok choy and wombok), cucumbers, green peas, onions, parsnips, potatoes, pumpkins, radish, silverbeet, spinach, snow peas, spring onions, swedes, sweet corn, zucchinis, eggplant, leeks and parsley.

There is a high number of mushroom and vegetable growing jobs in Rossmore. Greendale has a mix of agricultural activities including dairy cattle farming, poultry farming and mushroom and vegetable farming.

Kemps Creek and Rossmore have the greatest soil capability, while Wallacia and Greendale have the greatest soil fertility. Low fertility is associated with a sandier soil, making it more suited to horticultural crops that don't thrive in clay soils. In these locations, growers can make up for a nutrient shortfall by using fertiliser and frequent watering for soil moisture.

Agriculture has flow-on effects to other industry sectors such as manufacturing, retail trade, accommodation and food services and wholesale trade. Maintaining economically feasible agriculture in Liverpool helps to diversify Liverpool's economy, making it more resilient and resistant to economic shocks which may impact other industry sectors.

### Key Challenges and Opportunities

The rural lands of the Liverpool LGA have been progressively rezoned for urban purposes in the last 50 years. Former rural localities such as Prestons, Casula and

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Hoxton Park have developed into residential suburbs. Other localities such as Austral, Leppington and Edmondson Park are currently transitioning from rural to urban land, while Rossmore, Kemps Creek, Bradfield, Badgerys Creek and Bringelly are due to undergo ~~extensive-phased~~ urbanisation as part of plans for the Western Sydney Aerotropolis ~~as plans are developed further over coming decades~~. The encroachment of urban development towards the western fringes of the LGA have resulted in:

- Abandoned enterprises prior to rezoning;
- A noticeable transition from commercial scale agriculture to sub-commercial or hobby farming;
- A decline in standards of land management; and
- Increased land use conflicts on the borders of urban and rural land.



Figure 7 – Encroachment of urban development into rural areas (Nearmap)

This strategy aims to address the above issues by:

- Ensuring that agricultural lands are recognised for their economic value, as well as their intrinsic and landscape values;
- Considering a suitable range of land uses that can be permitted in rural zones to encourage productive utilisation of such lands before they are rezoned in future (i.e. highest and best use under current circumstances), while ensuring that zone objectives are not compromised;
- Considering the objectives of the Metropolitan Rural Area and any other plans/zoning across adjoining Council boundaries;
- Improving land management outcomes through increased resources dedicated to the monitoring of illegal dumping and unauthorised land uses;
- Considering the future transition of land-uses near the Mamre Road Precinct at Cecil Park;
- Advocating for the prevention of further encroachment of non-agricultural uses that introduce land use conflicts; and

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- Encouraging measures that provide opportunities for uses that value add to agriculture and leverage its proximity to urban development such as roadside stalls, farmers markets etc.

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## Rural Precincts

The strategy divides the 'rural lands' of Liverpool into the Denham Court, Rossmore, Kemps Creek, Dwyer Road, Western Rural Lands, Airport/Aerotropolis Core and Agribusiness precincts. The Airport/Aerotropolis Core and Agribusiness precincts are zoned under the *State Environmental Planning Policy (Precincts - Western Parkland City) 2021*. The remaining precincts are largely zoned under the *Liverpool Local Environmental Plan 2008* (except for C1 zoned land in Denham Court and RE1 – zoned land in Kemps Creek).

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## Denham Court

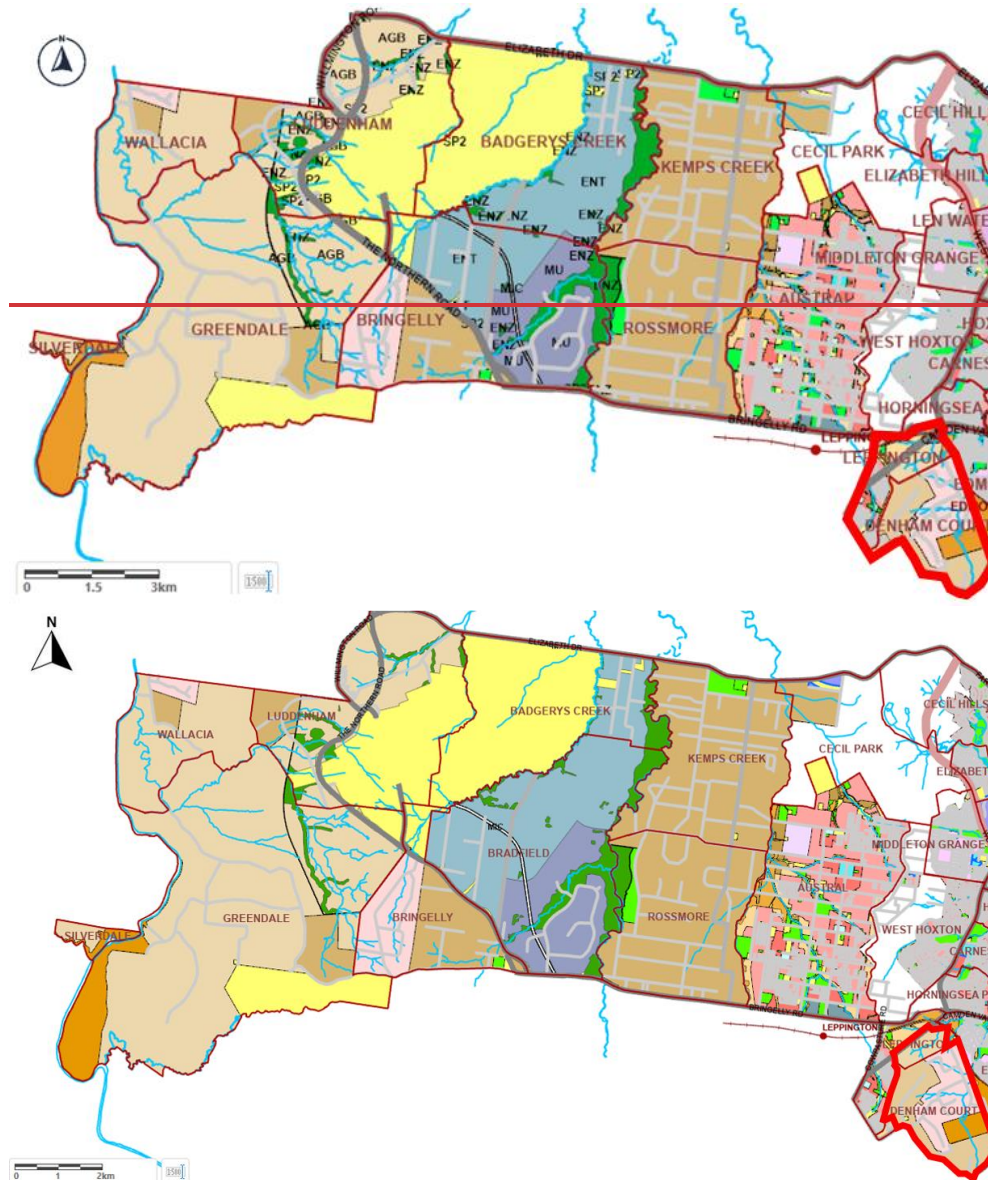


Figure 8 – Location of Denham Court Precinct

## Current Context

The Denham Court precinct includes the suburbs of Leppington and Denham Court. The precinct is bounded by (from the north in a clockwise direction) **Bringelly Road**, Camden Valley Way, The South-West Rail Link, Zouch Road, Campbelltown Road,

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Denham Court Road ~~and the Upper Canal~~ ~~Camden Valley Way, and Cowpasture Road.~~ There are no agricultural land uses occurring in this area.

The Denham Court portion of the precinct is serviced by Sydney Water drinking water, but not sewerage, and is largely characterised by rural-residential uses on large lots accentuated by scenic lands and the Jehovah's Witness headquarters along Zouch Road. Long views of the Sydney CBD and Blue Mountains from properties along Fox Valley Road and properties on the ridgeline in Leppington are afforded by the precinct's elevated position. This prominent ridgeline also forms a green backdrop, which is visible from several areas in the east and west of the LGA. Maintaining this green backdrop is important in preserving amenity to areas beyond Denham Court.

The remainder of the land in the precinct is gently undulating and the precinct forms the upper catchment of the Cabramatta Creek.



Figure 9 – View of Sydney CBD from Fox Valley Road (REA Group Ltd)

Denham Court is primarily zoned R5 – Large Lot Residential and RU2 – Rural Landscape under the *Liverpool Local Environmental Plan 2008*. ~~Smaller portions of~~ There is also the 48-hectare Edmondson Regional Park -which is the suburb- are zoned C1 – National Parks and Nature Reserves ~~Environmental Conservation and C4 – Environmental Living~~ under the *State Environmental Planning Policy (Precincts -*

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*Western Parkland City) 2021.* There are undersized RU2 zoned lots along Church Road and Campbelltown Road with areas ranging from 0.2ha to 2.5ha. These sites require amalgamation in accordance with 7.34 of the Liverpool LEP.

The Leppington portion of the precinct, ~~south of Camden Valley Way, is characterised by rural land transitioning to urban land uses. Urbanised land is largely situated on the eastern side of the Upper Canal with rural land uses being situated to the west. Rural land is largely~~ limited to ~~the~~ 57-hectare Forest Lawn Memorial Park ~~parcel of land~~ cemetery to the south of Camden Valley Way. ~~The cemetery is being~~ zoned RU1 – Primary Production under the *Liverpool Local Environmental Plan 2008* and has a frontage to the Upper Canal. ~~, and a collection of landholdings on the northern side of Camden Valley Way, zoned C2 Environmental Conservation and C4 Environmental Living under State Environmental Planning Policy (Precincts – Western Parkland City) 2021.~~



Figure 10 – Rural residential development in Denham Court (RM Consulting Group)

#### -Vision

The existing character of the Denham Court precinct is to be maintained with further fragmentation of larger lots being discouraged and scenic qualities being protected in the rural and large lot residential zones. Particularly, any development along Fox Valley Road, Camden Valley Way and the upper regions of Denham Court Road should be designed to retain view corridors to the Sydney metropolitan basin and scenic hills to the south of Denham Court.

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~~It is expected that urban-zoned land in Leppington will be developed for residential, recreation and commercial purposes. However, the landscaped backdrop this area provides from Bringelly Road, and the broader LGA, are not to be undermined by future development in the conservation zones to the north of Camden Valley Way.~~

Recommended Actions (refer to Action and Delivery Plan)

**Action 1:** Review existing Liverpool Local Environmental Plan (LEP) and Development Control Plan (DCP) provisions for rural land

**Action 2:** ~~Encourage~~ Encourage economic use of rural land for rural and related purposes economic use of rural land

**Action 3:** Review environmental health provisions for rural land

**Action 4:** Ensure green and blue grid networks are supported

**Action 6:** Protect rural heritage

**Action 8:** Protect scenic land ~~**Action 7:** Identify the RU1 zone and Metropolitan Rural Area as 'prime' agricultural land~~

**Action 98:** Manage transition to urban land

**Action 109:** Increase resources dedicated to handling compliance matters in the rural areas

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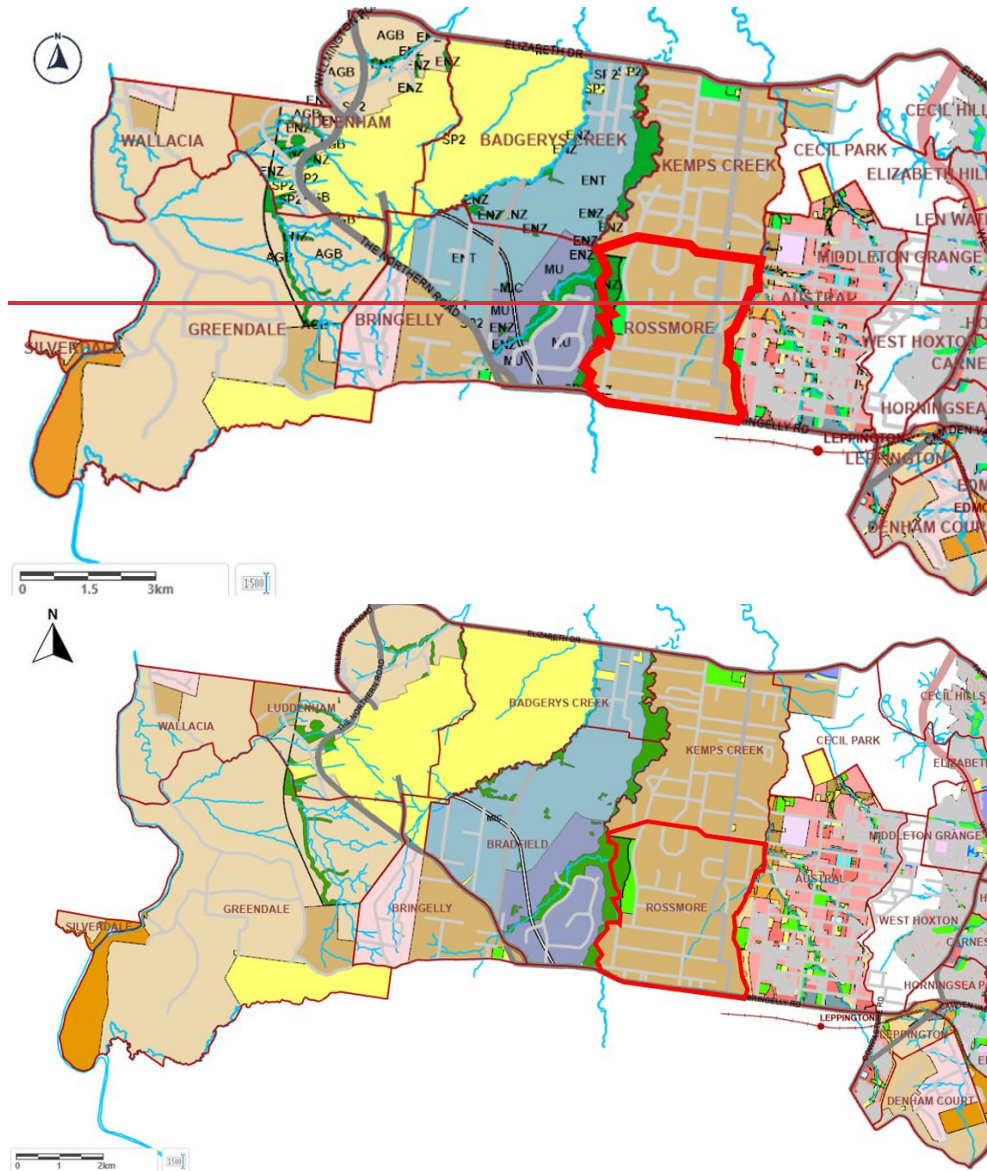
**RURAL LANDS STRATEGY****LIVERPOOL  
CITY COUNCIL****Rossmore**

Figure 11 - Location of Rossmore Precinct

**Current Context**

The Rossmore precinct is bounded by Fifteenth Avenue to the north, Kemps Creek to the east, Bringelly Road to the south and South Creek to the west. The precinct is zoned RU4 – Primary Production Small Lots and RE1 - Public Recreation under the *Liverpool Local Environmental Plan 2008* with most allotments being between 2 and

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10 hectares in size. A small portion of the locality is zoned ENZ - Environment and Recreation under the *State Environmental Planning Policy (Precincts - Western Parkland City) 2021*.

The precinct is characterised by a mix of horticulture, hobby farming, and rural residential land including hydroponic and soil-based production systems. A large parkland, called Rossmore Grange, is located in the suburb, which is used for non-competitive equestrian activities and passive recreation with future plans to accommodate an animal shelter. The suburb of Rossmore is identified as a non-initial precinct in the Western Sydney Aerotropolis Plan (2020).



Figure 12 - Hydroponic lettuce under plastic weather protection (RM Consulting Group)

### Vision

The existing character of the precinct is to be maintained until land is rezoned for urban purposes as part of the Western Sydney Aerotropolis. Agriculture is to be identified as the primary land use in the locality, with further land fragmentation and intensification of rural residential land uses being avoided.

The maintenance of agriculture is to be supported by initiatives to suppress speculative land investment and promote agricultural industries. Landowners are to be encouraged to maintain farmland and consider complementary non-agricultural land-uses such as garden centres, nurseries, roadside stalls, and agritourism.

Any proposed land uses are to be compatible with environmental and landscape protection and enhancement of bushland and riparian corridors along creeks.

### Recommended Actions (refer to Action and Delivery Plan)

**Action 1:** Review existing Liverpool Local Environmental Plan (LEP) and Development Control Plan (DCP) provisions for rural land

**Action 2:** Encourage economic use of rural land for rural and related purposes  
~~Encourage economic use of rural land~~

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**Action 3:** Review environmental health provisions for rural land

**Action 4:** Ensure green and blue grid networks are supported

**Action 6:** Protect rural heritage

**Action 109:** Increase resources dedicated to handling compliance matters in the rural areas

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## Kemps Creek

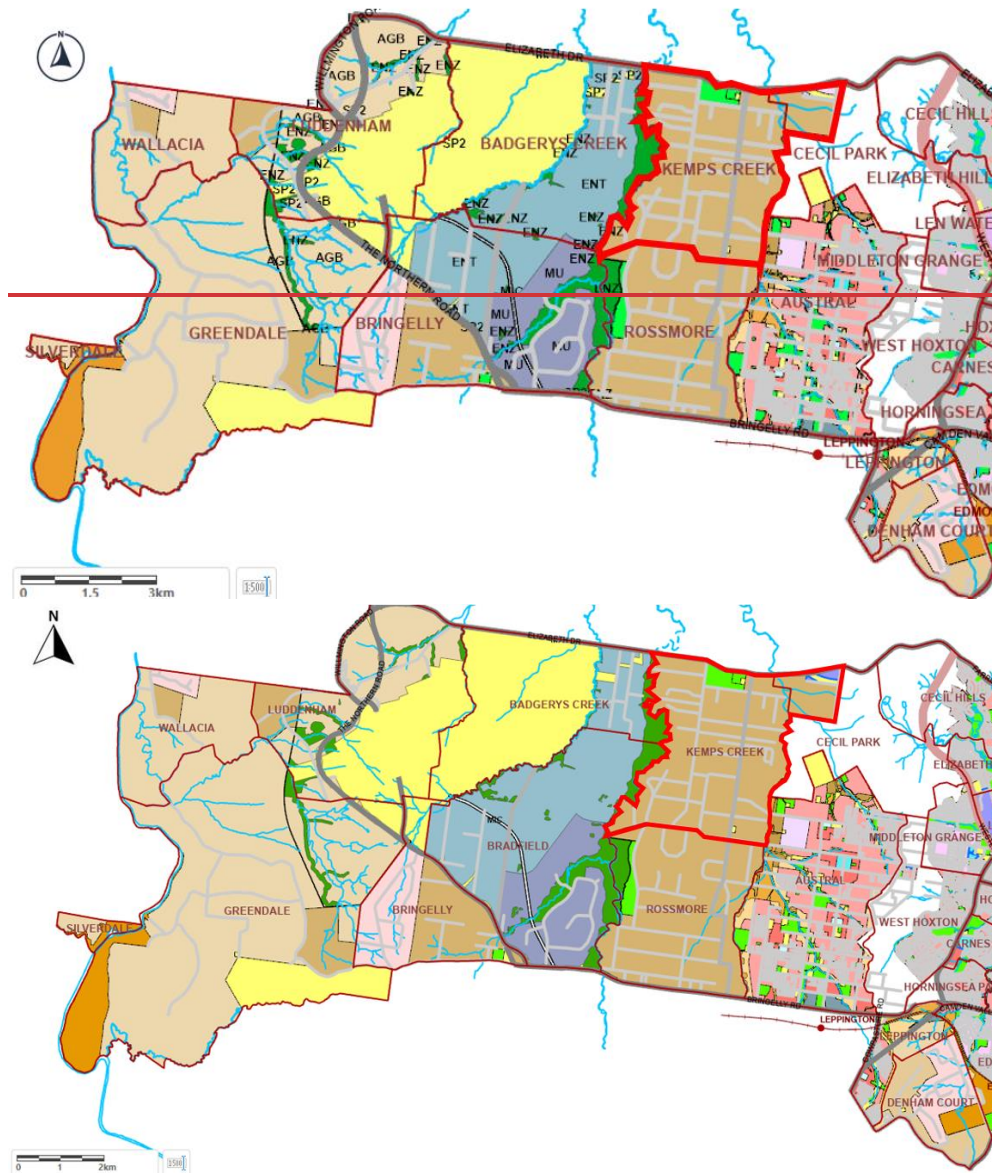


Figure 13 - Location of Kemps Creek Precinct

## Current Context

The Kemps Creek precinct also includes the suburb of Cecil Park and is generally bounded by Elizabeth Drive to the north, Western Sydney Parklands to the east, South Creek to the west and Fifteenth Avenue to the south. The Kemps Creek precinct is

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characterised by a mix of annual horticulture and rural residential. Annual horticulture is mainly undertaken as hydroponic and soil-based protected cropping under plastic tunnels and shade structures. High quality bushland characterises land to the north of Cross Street between Devonshire Road and Western Road.

The Cecil Park portion of the precinct is near the Mamre Road precinct of the Western Sydney Employment Area. Cecil Park is characterised by a waste processing facility and growing industrial development along Range Road.

The precinct is largely zoned RU4 – Primary Production Small Lots with smaller portions being zoned RE1- Public Recreation, Public Recreation - Regional, SP2 (Educational Establishment, Depot, and Classified Road) and ~~E4IN2~~ - ~~General~~~~Light~~ Industrial under the *Local Environmental Plan 2008* and *State Environmental Planning Policy (Precincts - Western Parkland City) 2021*. Kemps Creek is identified as a non-initial precinct in the Western Sydney Aerotropolis Plan (2020).

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Figure 14 – Hydroponic farm in Kemps Creek (RM Consulting Group)



Figure 15 – Rural residential development in Kemps Creek (RM Consulting Group)

### Vision

The existing character of the precinct is to be maintained until land is rezoned for urban purposes as part of the Aerotropolis. Agriculture is to be identified as the primary land use in the locality with further land fragmentation being avoided. The maintenance of agriculture is to be supported by initiatives to suppress speculative land investment. Landowners are to be encouraged to maintain farmland and consider complementary non-agricultural uses such as garden centres, nurseries, roadside stalls and agritourism.

Any proposed land uses are to be compatible with environmental and landscape protection and enhancement of bushland and riparian corridors along creeks.

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Recommended Actions (refer to Action and Delivery Plan)

**Action 1:** Review existing Liverpool Local Environmental Plan (LEP) and Development Control Plan (DCP) provisions for rural land

**Action 2:** Encourage economic use of rural land for rural and related purposes  
~~Encourage economic use of rural land~~

**Action 3:** Review environmental health provisions for rural land

**Action 4:** Ensure green and blue grid networks are supported

**Action 6:** Protect rural heritage

**Action 109:** Increase resources dedicated to handling compliance matters in the rural areas

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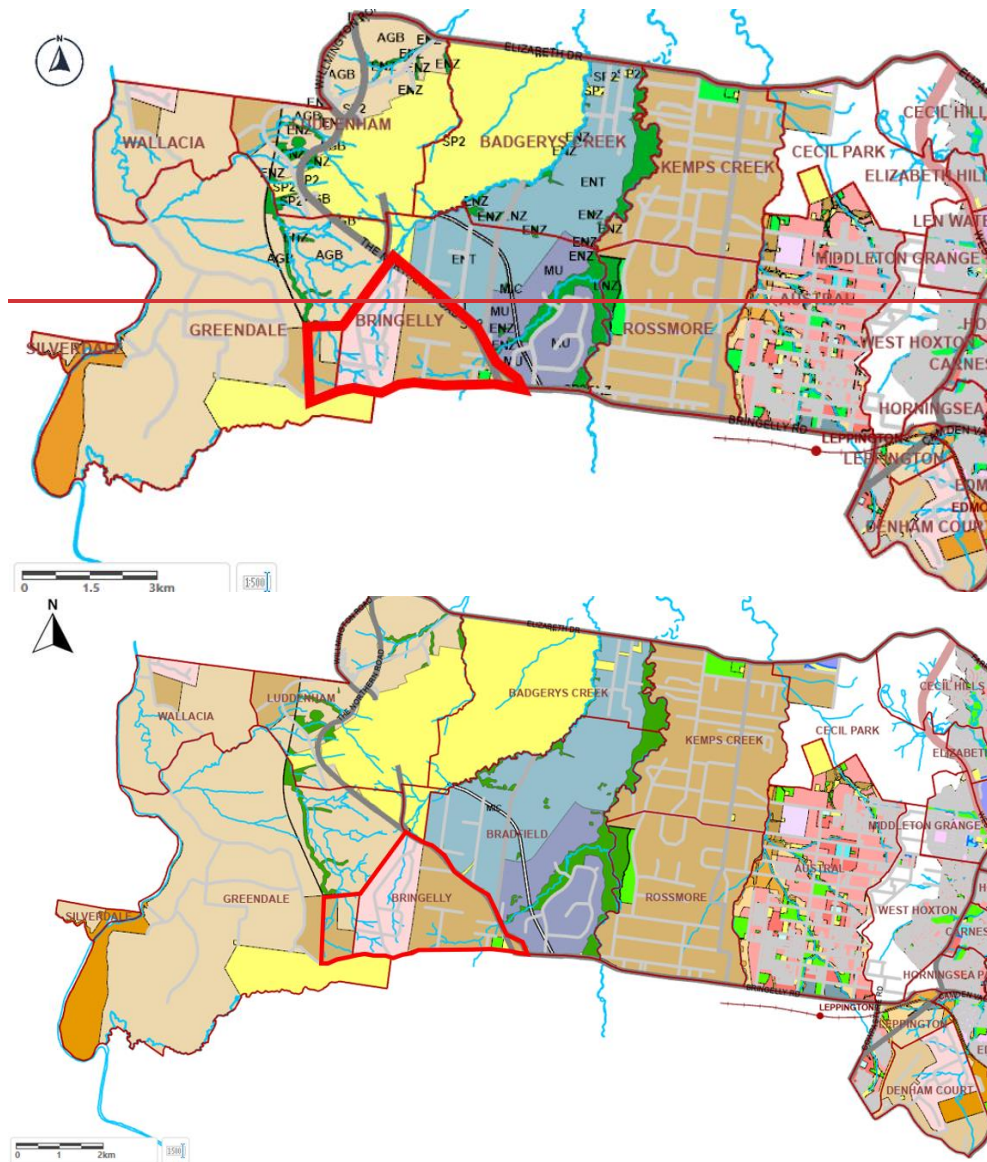
**RURAL LANDS STRATEGY****LIVERPOOL  
CITY COUNCIL****Dwyer Road**

Figure 16 - Location of Dwyer Road Precinct

**Current Context**

The Dwyer Road precinct includes parts of Greendale and Bringelly. The precinct is generally bounded by Greendale Road in the south, the Northern Road to the east, the Western Sydney International (Nancy-Bird Walton) Airport to the north and

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pastoral land holdings to the west. The precinct is largely zoned R5 – Large Lot Residential, RU1 – Primary Production and RU4 – Primary Production Small Lots, with smaller portions being zoned RE1 - Public Recreation and SP2 – Educational Establishment under the *Liverpool Local Environmental Plan 2008*.

The precinct is characterised by a rural residential estate in the R5 Large Lot Residential zone, with livestock grazing and intensive agriculture (poultry) being carried out in the rural zones. Although the Dwyer Road precinct is identified as a non-initial precinct in the Western Sydney Aerotropolis Plan (2020), part of the precinct has been identified as being susceptible to an Australian Noise Exposure Concept (ANEC) rating between 20 and 25. The ANEC rating is a forecast of potential aircraft noise exposure based on various operational scenarios with a rating between 20 and 25 being the lowest.

The locality is also within the 3km and 13km wildlife buffer zones. Livestock processing industries, turf farming and waste or resource management facilities that consist of outdoor processing, storage or handling of organic or putrescible waste are prohibited in the 3km buffer zone as they attract wildlife. Proposals for specified land uses such as agricultural produce industries, camping grounds and recreation facilities (outdoor) need to be accompanied by a wildlife hazard assessment and a waste management plan for the operation of the use of the land.



Figure 17 - Large lot residential development in Dwyer Road R5 zone (Google Maps)

### Vision

The existing character of the precinct is to be maintained until land is rezoned for urban uses as part of the Western Sydney Aerotropolis. Speculative land investment is to be suppressed by identifying agriculture and large-lot residential as the primary land uses in the locality. Consideration should be given to preserving and enhancing the landscape character and environmental values of this area as part of the Metropolitan

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Rural Area. Particularly, land uses that value add to agriculture and leverage its proximity to urban development such as roadside stalls, outdoor recreation, and farmers markets should be considered within the precinct. Development which is more commercial and industrial in nature is more suited to land which has already been rezoned nearby. Any proposed land uses are to be compatible with environmental and landscape protection, constraints as a result of airport operations, and enhancement of bushland and riparian corridors along creeks.

**Recommended Actions (refer to Action and Delivery Plan)**

**Action 1:** Review existing Liverpool Local Environmental Plan (LEP) and Development Control Plan (DCP) provisions for rural land

**Action 2:** Encourage economic use of rural land for rural and related purposes  
~~Encourage economic use of rural land~~

**Action 3:** Review environmental health provisions for rural land

**Action 4:** Ensure green and blue grid networks are supported

**Action 6:** Protect rural heritage

**Action 98:** Manage transition to urban land

**Action 109:** Increase resources dedicated to handling compliance matters in the rural areas

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## Western Rural Lands

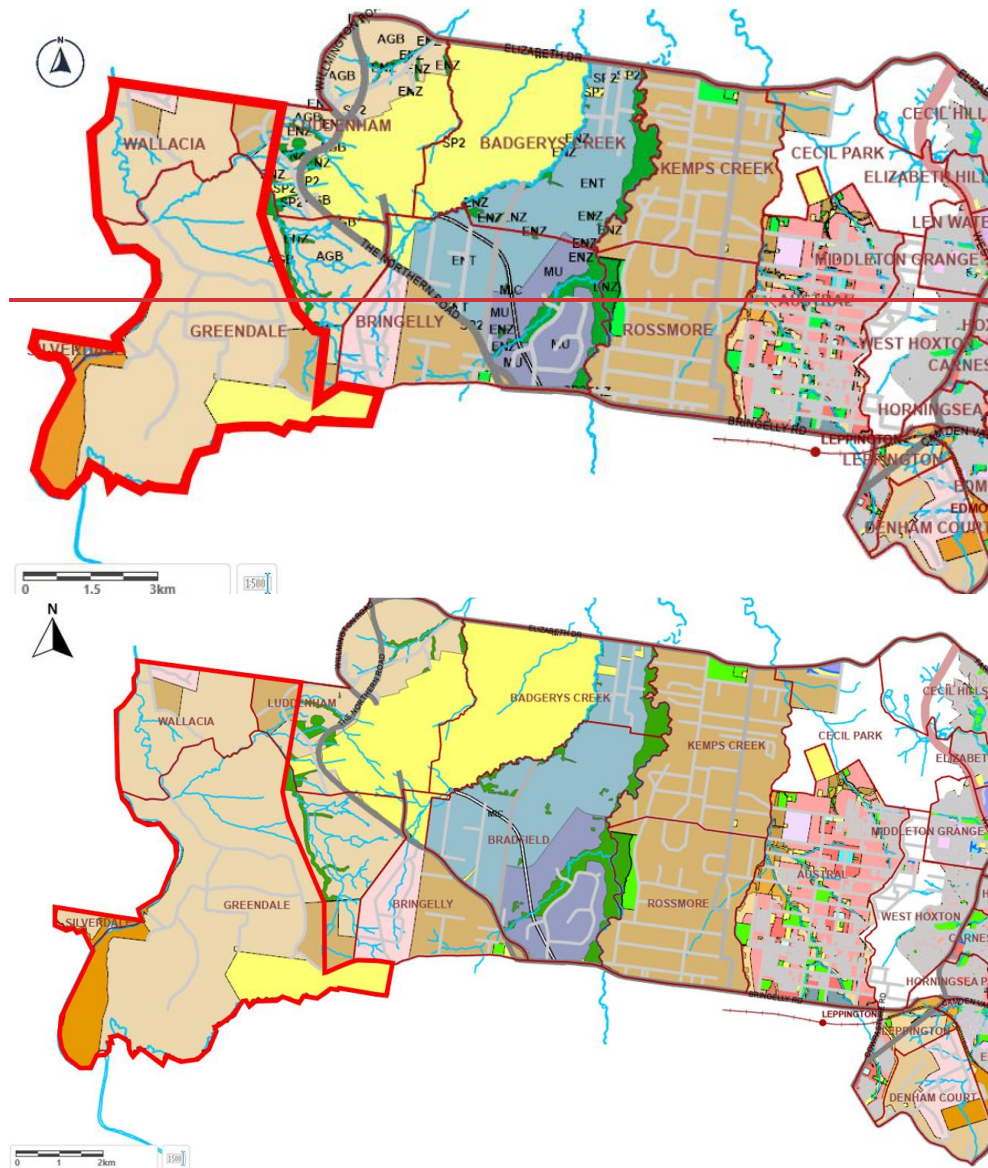


Figure 18: - Location of Western Rural Lands Precinct

## Current Context

The Western Rural Lands include the suburbs of Silverdale, Greendale, Wallacia and Luddenham. The precinct is generally bounded by Greendale Road, Park Road and the western and southern boundaries of the LGA. The precinct is largely zoned RU1 – Primary Production, with smaller portions being zoned R5 – Large Lot Residential,

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RU4 – Primary Production Small Lots, C1 – National Parks and Nature Reserves, and SP2 – Educational Establishment under the *Liverpool Local Environmental Plan 2008*.

The precinct is characterised by horticultural land uses on the Nepean River flats, the Bents Basin State Conservation Area in the far southwest and livestock grazing and poultry land uses. There are smaller rural zoned lots and residential uses closer to the town of Wallacia. The four small lots along Greendale Road are undersized with areas ranging from 0.3ha to 0.5ha. Under the provisions of the Liverpool LEP the sites do not meet the minimum lot size criteria of 40ha and require amalgamation under Clause 7.34.



Figure 19 – Horticulture farm in Nepean River floodplain (RM Consulting Group)



Figure 20 – Bent's Basin (Nearmap)

### Vision

It is envisioned that existing rural land uses will be maintained and that the Western Rural Lands will be the prime agricultural land within the LGA after the Rossmore and

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Kemps Creek precincts are rezoned. The minimisation of further land fragmentation is critical in ensuring that residential developments remain on single allotments and that existing enterprises continue to be economically sustainable.

*Recommended Actions (refer to Action and Delivery Plan)*

**Action 1:** Review existing Liverpool Local Environmental Plan (LEP) and Development Control Plan (DCP) provisions for rural land

**Action 2:** ~~Encourage economic use of rural land for rural and related purposes~~  
~~Encourage economic use of rural land~~

**Action 3:** Review environmental health provisions for rural land

**Action 4:** Ensure green and blue grid networks are supported

**Action 6:** Protect rural heritage

**Action 7:** Identify the ~~Western Rural Lands RU1 zone and Metropolitan Rural Area~~ as 'prime' agricultural land

**Action 109:** Increase resources dedicated to handling compliance matters in the rural areas

**Action 110:** Investigate placemaking opportunities in Wallacia and Luddenham, including addressing transition of development controls from Liverpool LGA to Penrith LGA and Camden LGA

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## Airport/Aerotropolis Core

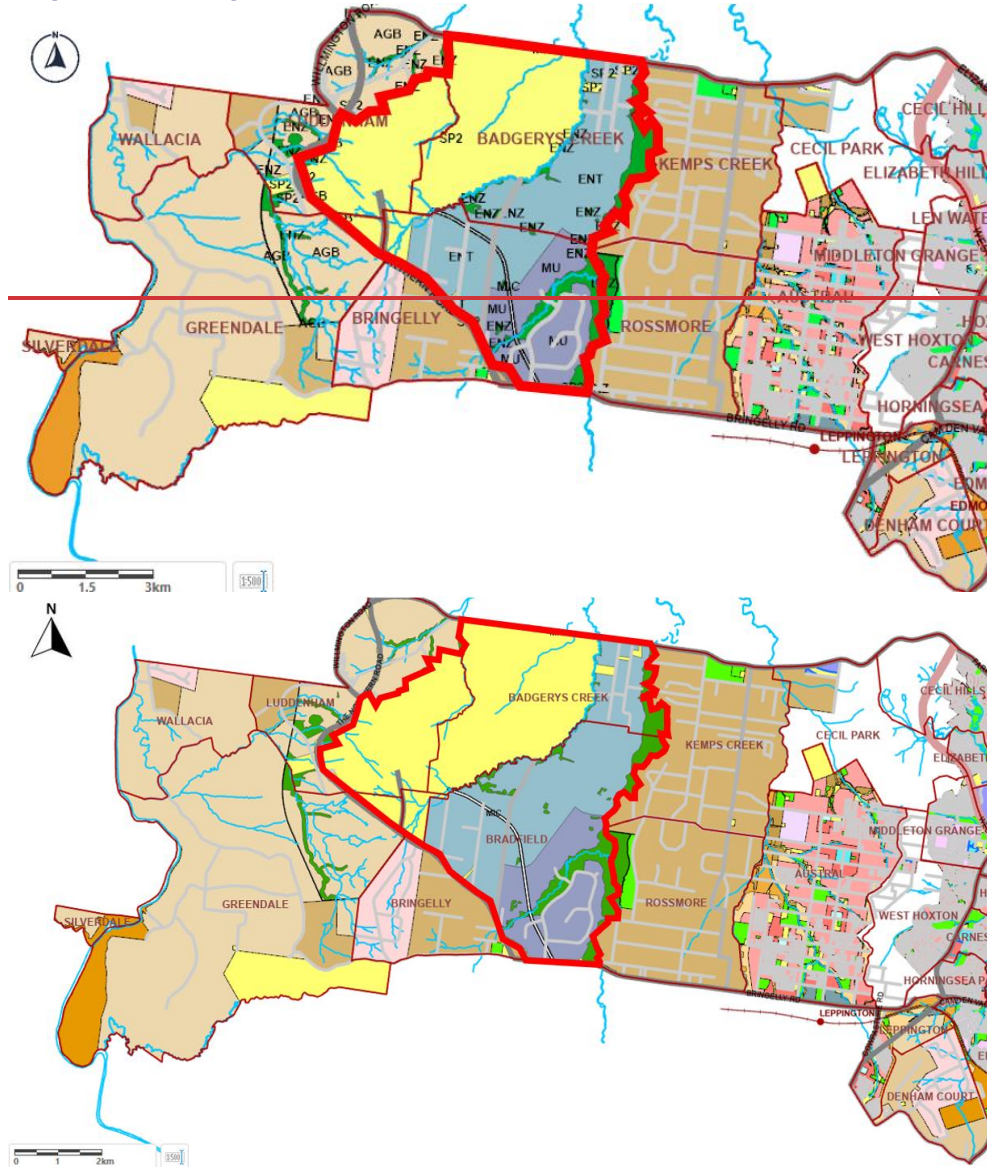


Figure 21: - Location of Airport/Aerotropolis Core Precinct

## Current Context

The Airport/Aerotropolis Core precinct includes the suburbs of Badgerys Creek, Bradfield, Bringelly and Luddenham. The precinct is generally bounded by South Creek, Bringelly Road, Elizabeth Drive and the Northern Road.

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The precinct is predominantly zoned a combination of SP2 – Infrastructure, ENT – Enterprise, ENZ – Environment and Recreation and MU - Mixed Use under the *State Environmental Planning Policy (Precincts - Western Parkland City) 2021*. Smaller portions of the precinct are zoned SP1 - Commonwealth Activities and AGB - Agribusiness within proximity of the Northern Road.

The precinct is characterised by rural land uses in the vicinity of the airport construction site. Existing allotments in the Enterprise zone are between 2 and 10 hectares, with most lots in the MU zone being less than 2 hectares.

### Vision

It is envisioned that this precinct will offer a range of employment uses within the immediate vicinity of the Western Sydney International (Nancy-Bird Walton) Airport. Additional commercial and residential uses will be offered in the Mixed Use zone on the periphery of the Aerotropolis Core. The green and blue grid is to be protected and enhanced as development occurs to enable a cooler and greener city.

### Recommended Actions (refer to Action and Delivery Plan)

**Action 4:** Ensure green and blue grid networks are supported

**Action 6:** Protect rural heritage

**Action 98:** Manage transition to urban land

**Action 109:** Increase resources dedicated to handling compliance matters in the rural areas



Figure 22 – Artist's impression of Aerotropolis Core precinct (Department of Planning & Environment)

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## Agribusiness

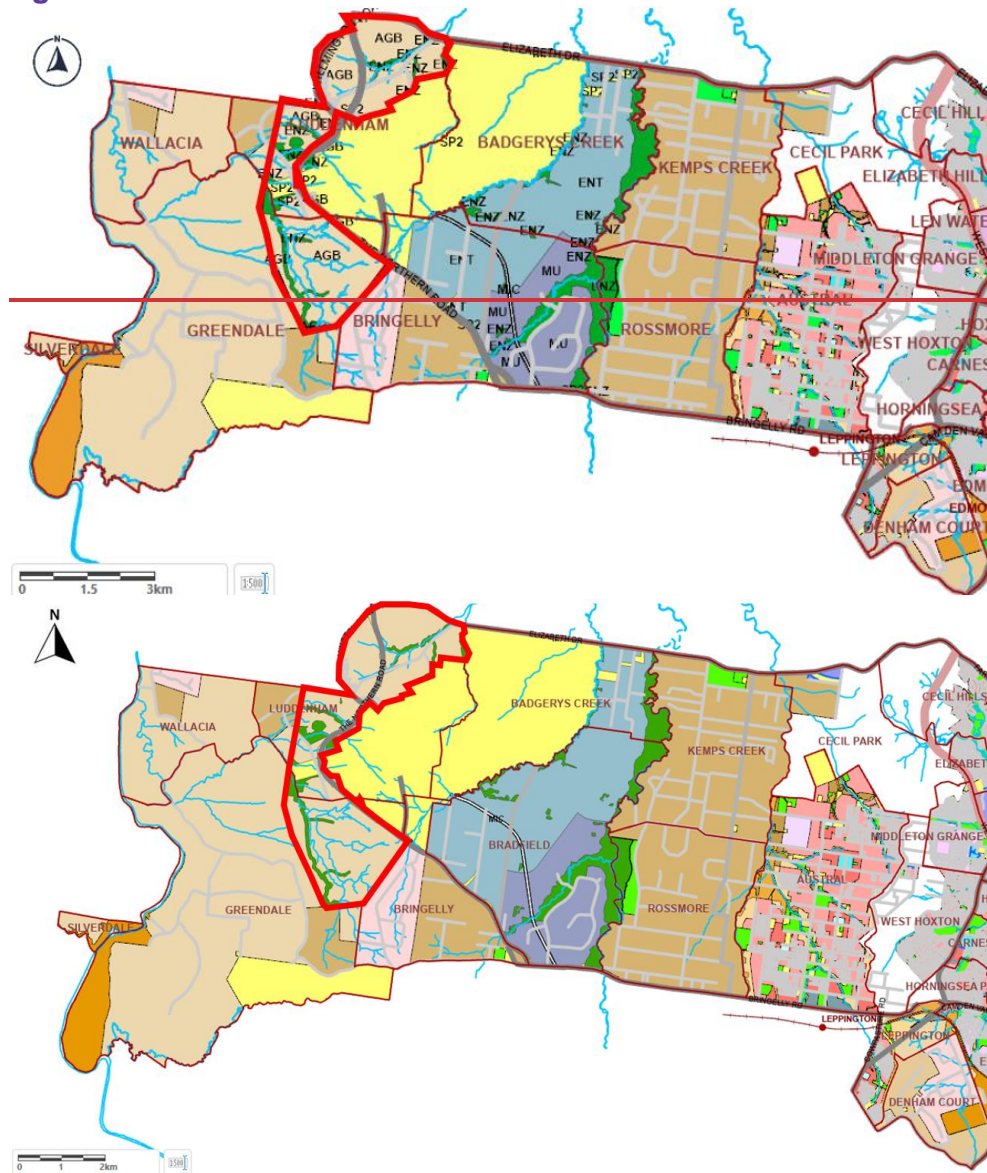


Figure 23 - Location of Agribusiness Precinct

## Current Context

The Agribusiness precinct includes the suburbs of Greendale and Luddenham. The precinct is generally bounded by Willmington Road, the Penrith LGA and Elizabeth Drive in the north, the Western Sydney International (Nancy-Bird Walton) Airport in the east, Dwyer Road precinct in the south and the proposed Outer Sydney Orbital to the

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west. Allotments within the precinct range in size from 1 to 10 hectares and are currently used for agriculture in accordance with existing use rights.

### Vision

It is envisioned that this precinct will cater for land uses such as high technology industry, commercial offices, small and medium enterprises, urban services, warehousing and logistics, food technology and research, food production and processing, agribusiness, and fresh food produce markets. The Luddenham Village is contained within this zone. Although, the vision for the village itself will largely be reflected in the precinct planning undertaken by the Department of Planning and Environment, community members have highlighted the importance of the Village's heritage and position as a gateway to the Airport from a tourist and visitor perspective. This should be captured in future plans to guide the growth of the Village.

### Recommended Actions (refer to Action and Delivery Plan)

**Action 2:** Encourage economic use of rural land

**Action 3:** Review environmental health provisions for rural land

**Action 4:** Ensure green and blue grid networks are supported

**Action 6:** Protect rural heritage

**Action 98:** Manage transition to urban land

**Action 109:** Increase resources dedicated to handling compliance matters in the rural areas

**Action 110:** Investigate placemaking opportunities in Wallacia and Luddenham, including addressing transition of development controls from Liverpool LGA to Penrith LGA and Camden LGA



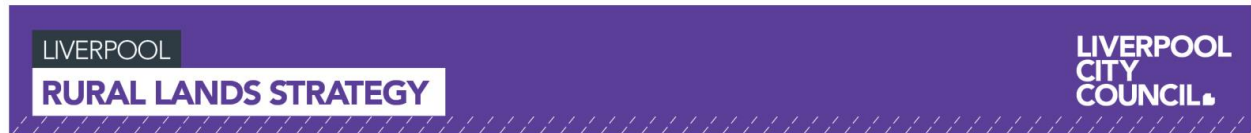


Figure 24 - Artist's impression of Agribusiness precinct (Department of Planning & Environment)

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## Guiding Criteria for Planning Proposals

Table 3 - Guiding Criteria for Planning Proposals

#	Guiding Criteria	Rationale
1	<i>Proposals are consistent with the rural lands strategy</i>	Proposals that are consistent with the provisions of the Rural Land Strategy, Regional Plan, District Plan, LSPS and WSAP are likely to be supported. Particularly, any rezoning of land outside of the Metropolitan Rural Area, <a href="#">Denham Court</a> , Western Rural Lands and non-initial precincts of the Western Sydney Aerotropolis may be considered with sufficient justification.
2	<i>The proposal fosters planning outcomes which enhances: the economic feasibility of primary industries, rural landscape amenity, and environmental values</i>	The NSW government has identified approximately 8000ha of land to be rezoned for urban purposes as part of the Western Sydney Aerotropolis in the Liverpool LGA. Therefore, any application that seeks to enable additional land uses on rural land outside of the Western Sydney Aerotropolis may be considered, should it demonstrate consistency with existing land use zone objectives or be supported by a comprehensive precinct plan endorsed by a planning authority.
3	<i>Rural activities take precedence</i>	<p>Land Use Conflict Risk Assessment (LUCRA) is a system to identify and assess the potential for land use conflict to occur between neighbouring land uses. It helps land managers and consent authorities assess the possibility for and potential level of future land use conflict.</p> <p>There are four key steps in undertaking a LUCRA.</p> <ol style="list-style-type: none"> <li>1. gather information about proposed land use change and associated activities</li> <li>2. evaluate the risk level of each activity</li> <li>3. identify risk reduction management strategies</li> <li>4. record LUCRA results.</li> </ol> <p>Rezoning proposals justified by a LUCRA may be supported in rural areas where they support agricultural activities.</p>
4	<i>Economic viability of rural lands is to be enhanced</i>	Productive agricultural land is being lost to encroaching urban sprawl in the Western City District. Facilitation of new, innovative, or complimentary land-uses which

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#	Guiding Criteria	Rationale
		support agricultural activity may be accommodated in rural areas, provided that an Economic Impact Study is provided with any rezoning application.
<b>5</b>	<i>New opportunities are supported by adequate infrastructure</i>	Some rural areas don't have access to potable water, sewerage and high capacity electricity networks. Some land-uses will also be challenged by a lack of access to open space, public services, and road infrastructure capable of carrying heavy, or large volumes of traffic. Therefore, proposals that increase demand for such infrastructure must provide a mechanism to enable its delivery.
<b>6</b>	<u>Upper Canal to be protected</u>	<u>Any planning proposals within the vicinity of the Upper Canal Corridor, or on land mapped as 'affected land' under s2.163 of the State Environmental Planning Policy (Transport &amp; Infrastructure) 2021 are to be referred to Water NSW at public exhibition stage.</u>
<b>7</b>	<u>Provision and protection of electrical infrastructure</u>	<u>Ensure that any planning proposals within the vicinity of Endeavour Energy network assets, or that seek to intensify electrical infrastructure demand, are referred to Endeavour Energy at public exhibition stage.</u>
<b>8</b>	<u>Protection of Transgrid assets</u>	<u>Ensure that any planning proposals within the vicinity of Transgrid network assets are referred to Transgrid at public exhibition stage.</u>
<b>9</b>	<u>Protection of riparian corridors</u>	<u>Ensure that any planning proposals is consistent with the policies and guidelines prepared by the NSW government for the conservation of riparian corridors and fish habitats (Policy and Guidelines for Fish Habitat Conservation and Management 2013).</u>

## Action and Delivery Plan

For the purposes of this Strategy, the following short, medium and long-term timeframes have been established for the proposed actions.

Short term: 2023/2024  
Medium term: 2023/2024–2026/2027  
Long term: 2027/2028+

Table 4 - Action and Delivery Plan

#	Action	Rationale	Deliverable	Timing
1	Review existing Liverpool Local Environmental Plan (LEP) and Development Control Plan (DCP) provisions for rural land	<p>“Landscape Material Supplies” are permitted within the RU1 and RU4 zones. However, development applications lodged for “Landscape Material Supplies” frequently include elements associated with waste resource recovery premises and truck depots. Consideration should be given to reviewing all land uses and objectives in the rural zones to ensure that proposed land uses do not have adverse impacts on the rural precincts.</p> <p>Schedule 1 (Clause 29) of the LEP permits Recreation Facilities (Outdoor) as an additional permitted uses on land at Bringelly, in the R5 zone. Therefore, consideration should be given to permitting Recreation Facilities (Outdoor) in all R5 zoned land in the LGA.</p>	<p>Review existing land use tables, and their objectives and permissible/prohibited uses for RU1, RU2, RU4, RU6 and R5 zones.</p> <p>Consider a Development Control Plan (DCP) amendment to support Clause 4.2 requiring an 88b restriction to ensure that undersized allotments in rural zones are not provided with a dwelling entitlement.</p>	Short Term

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LIVERPOOL CITY COUNCIL

#	Action	Rationale	Deliverable	Timing
		<p>Clause 7.34 of the LEP enables amalgamation of land in Denham Court and Wallacia. Clause 4.2 prohibits the construction of a dwelling house on undersized lots unless they are consolidated with other adjoining lots (in the same ownership and forming part of the same curtilage). However, the LEP does not detail objectives of the prohibition, or how the prohibition should be enforced. Therefore, consideration should be given to reviewing the prohibition.</p> <p>Currently, there are no controls governing the maximum size of farm buildings in rural zones. Large Farm Buildings can interfere with rural amenity and landscapes. Therefore, a maximum floor area needs to be investigated to ensure that any farm building is integrated into the character of its respective locality.</p> <p><u>Department of Primary Industries (Fisheries) have requested that the following information is incorporated into the Liverpool DCP:</u></p> <ul style="list-style-type: none"> <li><u>Riparian buffer zone widths as outlined in DPI Fisheries guidelines</u></li> <li><u>Clear delineation of riparian buffer zones</u></li> </ul>	<p>Investigate history of Clause 7.34 and ensure that it is still relevant.</p> <p>Set an appropriate maximum floor area for farm buildings in the LEP or DCP.</p> <p><u>Incorporate controls for riparian corridors into the DCP.</u></p>	

#	Action	Rationale	Deliverable	Timing
2	<u>Encourage economic use of rural land</u> <u>Encourage economic use of rural land for rural and related purposes</u>	<ul style="list-style-type: none"> <li>• <u>Requirement to revegetate disturbed areas with local native species</u></li> <li>• <u>Design requirements for riparian buffer zones to incorporate the maintenance of lateral connectivity between aquatic and riparian habitat.</u></li> <li>• <u>Rehabilitation strategy for riparian zones</u></li> </ul> <p>The Department of Planning &amp; Environment has implemented planning reforms to ensure agritourism is permitted in the RU1, RU2 and RU4 zones under the Liverpool Local Environmental Plan (LEP) and exempt and complying development codes where agriculture is already permitted.</p> <p>It is pertinent that Council promotes the opportunities afforded by the planning reforms and complementary land uses that encourage the economic use of land before urban development occurs.</p>	<p>Educate local businesses, landowners, and industry professionals about the planning reforms.</p> <p>Review existing land use tables, and their objectives and permissible/prohibited uses for RU1, RU2, RU4, RU6 and R5 zones.</p> <p>Review DCP to ensure alignment with agritourism reforms and any proposed complementary land use where required.</p>	Short Term

#	Action	Rationale	Deliverable	Timing
			Review Council's Destination Management Plan to ensure that landowners and patrons can take full advantage of any tourism opportunities in rural areas where appropriate.	
3	Review environmental health provisions for rural land	<del>It has been identified that consideration for impacts associated with noise generation, contaminated land, odour, water pollution and sewerage management systems require supporting documentation and specific reports for specific development that has the potential to impact upon the amenity of the area.</del>	Review and augment the current Liverpool Local Environmental Plan and Development Control Plan to account for relevant amenity impacts associated with development of rural land. -	Short term
4	Ensure green and blue grid networks are supported	The rural and scenic lands of Liverpool are serviced by South Creek, Kemps Creek, and the Nepean River. It is important that creek beds and adjoining riparian corridors are protected from encroaching development. Any initiatives to protect vegetation and water ways must be complemented by the key principals of the Cumberland Plain Conservation Plan (CPCP) and Green Grid study to protect local biodiversity values.	Review current Environmentally Significant Land overlay and implement new riparian corridor and native vegetation maps in Liverpool LEP and DCP.	Short term

#	Action	Rationale	Deliverable	Timing
5	Investigate appropriate land-uses in Cecil Park, including addressing transition of development controls from Liverpool LGA to Penrith LGA	In 2020, the Mamre Road Precinct of the Western Sydney Employment Area (WSEA) was released in the Penrith LGA. In 2021, 1400-1480 Elizabeth Drive, Cecil Park was rezoned from RU4 Primary Production Small Lots to <del>E4N2</del> – <del>General Light</del> Industrial in the Liverpool LGA. Given the encroachment of industrial uses within Cecil Park, there is scope to investigate opportunities to rezone the remaining rural land in this suburb.	Investigate rezoning opportunities in Cecil Park.	Medium term
6	Protect rural heritage	The rural areas of Liverpool hold evidence of European colonisation and First Nations occupation. Currently, heritage impacts are assessed on a site-by-site basis rather than a single conducive analysis. Scenic or landscape value of our rural areas needs to account for European and First Nations heritage.	Conduct an LGA wide Comprehensive European Heritage review.  Conduct an LGA wide Comprehensive Aboriginal Heritage Study.	Medium term
7	Identify the <del>Western Rural Lands</del> <del>RU4 zone</del> and <del>Metropolitan Rural Area</del> as	The Department of Primary Industries (DPI) guide <i>Planning for Agriculture in Rural Land Use Strategies</i> recommends that the highest quality agricultural land in an LGA should be zoned RU1 - Primary Production.	Suppress speculative land investment by educating landowners about the primacy of agriculture in the Western Rural Lands precincts.	Short/ Long Term

#	Action	Rationale	Deliverable	Timing
	'prime' agricultural land	<p>The Metropolitan Rural Area (MRA) has been identified in the Regional and District Plans as an area that has been set aside for rural development.</p> <p>Although the RU4 Primary Production Small Lot zone in Rossmore and Kemps Creek is the highest quality agricultural land in the Liverpool LGA, it will be rezoned for urban purposes in the long term. Therefore, <del>the</del> <del>RU4-zones-in</del> the Western Rural Lands are likely to be the remaining agricultural land in the LGA.</p> <p>Accordingly, further fragmentation of landholdings in the <del>RU4 - Primary Production zone</del> <u>Western Rural Lands</u> are to be minimised to support viable agricultural operations and maintain areas of scenic value.</p>	<p>Collaborate with the Future Food Systems Cooperative Research Centre and the Sydney Peri-Urban Network (SPUN) to identify key projects that would reinforce and support ongoing agricultural and associated activities, given the importance of supporting and maintaining Sydney's food bowl.</p> <p>Avoid planning proposals that facilitate <u>or intensify</u> urban development in the MRA and <del>Western Rural Lands</del> <u>RU4-zoned land</u>.</p>	
<u>8</u>	<u>Protect scenic land</u>	<p><u>The Regional and District Plans identify Denham Court and Forest Lawn Memorial Park as being in the Metropolitan Rural Area (MRA). The MRA is an area that has been set aside for rural development.</u></p> <p><u>The Liverpool Local Strategic Planning Statement (LSPS) identifies the Denham Court precinct and Forest Lawn Memorial Park as scenic land.</u></p>	<p><u>Suppress speculative land investment by educating landowners about the scenic character and views of Denham Court and surrounds.</u></p> <p><u>Avoid planning proposals that facilitate or intensify urban</u></p>	<p><u>Short/ Long Term</u></p>

#	Action	Rationale	Deliverable	Timing
		<u>Accordingly, further fragmentation of the Forest Lawn Memorial Park and land in Denham Court are to be minimised to maintain areas of scenic value.</u>	<u>development in the MRA and Denham Court precinct.</u>	
<del>98</del>	<b>Manage transition to urban land</b>	<p>Rural lands are under pressure to be rezoned for urban purposes. Therefore, it is important that any transition is managed by:</p> <ul style="list-style-type: none"> <li>- Maintaining the primacy of agricultural <del>production</del>, <del>and</del> <del>production</del> and minimise land speculation.</li> <li>- Working with state agencies to develop land release timeframes (for non-MRA precincts).</li> <li>- Advocating for infrastructure planning to occur early in the precinct planning process, to avoid release of precincts when servicing cannot be provided in the near term.</li> <li>- <u>Maintaining the boundary of the Metropolitan Rural Area (MRA).</u></li> <li>- <u>Limiting fragmentation in rural areas that are earmarked for future urban development. This will maximise the ability of future urban designs to achieve desired social, economic and environmental outcomes.</u></li> </ul>	<p>Collaborate with state agencies to ensure infrastructure is ready to be delivered prior to any rezoning of land from rural to urban.</p> <p><u>Avoid proposals that facilitate subdivision prior to land being rezoned for urban purposes.</u></p> <p>Require applicants to submit a land use conflict risk analysis (LUCRA) where a change of land use is proposed, and an appropriate buffer distance to the MRA and existing rural areas is unable to be achieved.</p>	Medium/long term

**LIVERPOOL**  
**RURAL LANDS STRATEGY**

**LIVERPOOL CITY COUNCIL**

#	Action	Rationale	Deliverable	Timing
<b>10</b> <b>9</b>	<b>Increase resources dedicated to handling compliance matters in the rural areas</b>	Council has received an increased volume of complaints and court appeals concerning cut and fill, land clearing, illegal dumping and illegal land uses in rural localities. Therefore, Increased resourcing is required to address these issues.	Organisational review of resources dedicated to enforcing complaints, attending court and issuing fines in accordance with the Local Government Act and planning legislation.	Long term
<b>11</b> <b>9</b>	<b>Investigate placemaking opportunities in Wallacia and Luddenham, including addressing transition of development controls from Liverpool LGA to Penrith LGA and Camden LGA</b>	Council LSPS action 16.2 requires this investigation to be undertaken. Any investigation should seek to maintain or enhance the environmental, social and economic values of rural villages as they lie within the Metropolitan Rural Area.	Review and update DCP controls as they relate to rural villages.  Working collaboratively with the Western Sydney Planning Partnership, investigate the transition of development controls from the Liverpool LGA to Penrith LGA and Camden LGA.  Earmark potential sites in Wallacia and Luddenham suitable for placemaking opportunities.	Long term



## For further information



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