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Moore Point

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Acknowledgment of Country

The Department of Planning and Environment acknowledges the Traditional Owners and Custodians of the land on which we live and work and pays respect to Elders past, present and future.

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Table 1 Reports and plans supporting the proposal

Relevant reports and plans
Aboriginal Heritage Due Diligence Report, prepared by Ecological Australia, 9 April 2020
Aeronautical Assessment, prepared by Strategic Airspace, 6 April 2020
Air Quality Suitability Study, prepared by Todoroski Air Sciences, 6 April 2020
Demographic Analysis, prepared by Mecon and Astrolabe Group, 1 September 2020
Economic Impact Assessment, prepared by Hill PDA consulting, April 2020
Biodiversity Assessment Report, prepared by Ecological Australia, 7 April 2020
Community Benefits Analysis, prepared by Cred Consulting, 6 April 2020
Community Benefits Analysis Addendum, Sports fields advice, prepared by Cred Consulting, 22 October 2020
Flood Impact Assessment, prepared by J. Wyndham Prince, April 2020
Flood Emergency Response Strategy, prepared by Advisian and Risk-e Business, November 2022
Flood Impact and Risk Assessment, prepared by Advisian, July 2022
Georges River Evacuation Modelling, Flood Evacuation Analysis, prepared by Molino Stewart, March 2022
Historical Heritage Assessment, prepared by Ecological Australia, 9 April 2020
Liverpool Collaboration Area Strategic Transport Infrastructure Assessment, prepared by Aurecon, 13 July 2021
Liverpool Collaboration Area Strategic Transport Assessment, prepared by Aurecon, 3 April 2020
Contamination Assessment, Part 1, Contamination, Acid Sulfate Soils and Remedial Strategy, prepared by EIAustralia, 9 April 2020
Contamination Assessment, Part 2, Preliminary Acid Sulfate Soil Management Plan, prepared by EIAustralia, 9 April 2020
Place Design Framework, prepared by RD, 4 April 2020
Riparian Strategy, Moore Point and Lake Moore, and Riparian Strategy Appendix A, prepared by Northrop, 7 April 2020
Services Infrastructure Report, prepared by ADW Johnson Pty Limited, 6 April 2020
Sustainability Statement, prepared by Integral Group, 6 April 2020

Relevant reports and plans

Urban Design Report, prepared by SJB Urban, 15 April 2020

Urban Design, Addendum, prepared by SJB Urban, 7 December 2020

1 Planning proposal

1.1 Overview

Table 2 Planning proposal details

LGA	Liverpool City Council
PPA	Liverpool City Council
NAME	Moore Point (14,789 dwellings and 23,000 jobs)
NUMBER	PP-2022-1602
LEP TO BE AMENDED	Liverpool Local Environmental Plan 2008
ADDRESS	2, 4a, 3-11, 6-16 Bridges Road, 317, 323, 331-333, 337, 351-355, 361, 377, 391, 397-405 Newbridge Road and Bill Morrison Park, Moorebank.
DESCRIPTION	Lot 200 & 201 DP 1009044, Lot 100 DP 775780, Lot 111 DP 1133744, Lot 1* DP 329572, Lot 1 – 4 SP 49163, Lot 7 DP 11948, Lot 6 DP 654427, Lot 4 & 5 DP 11948, Lot 45 DP 867545, Lot 1 & 2 229494, Lot 10, DP875626, Lot 1 – 11 SP 38170, Lot 101 & 102 DP 827141, Lot 1 DP 235294, Lot B1 DP 392696, Lot B DP 346332, Lot 201 DP 584561, Lot 23 DP535604, Lot 2, 3 & 4 DP 562025, Lot 1 DP 500388
RECEIVED	7/05/2022
FILE NO.	IRF22/2312
POLITICAL DONATIONS	There are no donations or gifts to disclose, and a political donation disclosure is not required
LOBBYIST CODE OF CONDUCT	There have been no meetings or communications with registered lobbyists with respect to this proposal

1.2 Objectives of planning proposal

The planning proposal contains objectives that adequately explain the intended outcomes of the proposal. The planning proposal seeks to assist in realising the Government's aims to re-vitalise land along the eastern banks of the Georges River. The proposal seeks to achieve this by creating

jobs, housing and community uses within proximity to the Liverpool CBD, public transport, community infrastructure and the Liverpool Health, Education and Innovation Precinct over a projected 25-year timeframe.

The objectives of this planning proposal are considered clear and adequate.

It is important to note, though the proposal includes anticipated dwelling and job numbers this Gateway does not approve those numbers. Any yield achievable on the site will be determined once further studies and investigations are undertaken as required by the Gateway determination. The outcomes of those studies investigations need to be understood and reflected into any final assessment and decision about future planning controls for the site. This includes (but is not limited to) capacity to pay for infrastructure to enable evacuation, road capacity, flood studies and urban design.

1.3 Explanation of provisions

The planning proposal seeks to amend the Liverpool City Council LEP 2008, as follows:

Table 3 Current and proposed controls

Control	Current	Proposed
Zone	IN2 – Light Industrial	B4 – Mixed Use, B6 – Enterprise Corridor and RE1 – Public Recreation
Maximum height of the building	15m and 18m	RL108 and RL136
Floor space ratio (FSR)	0.75:1	3.5:1 and 4.2:1
Minimum lot size	2,000sqm	N/A
Number of dwellings	N/A	14,789
Number of jobs	1,100	20,000

The planning proposal contains an explanation of provisions that adequately explains how the objectives of the proposal will be achieved.

1.4 Site description and surrounding area

1.4.1 Site description

The Precinct is identified as Georges River North under the Liverpool Collaboration Area Place Strategy and is better known as Moore Point. The precinct is 38.5 ha in size and is bound by the Georges River to the north and west, Haigh Park, Lake Moore and McMillan Park to the east and Newbridge Road to the south. Primary access to the site is via Bridges Road which runs off Newbridge Road. Refer to **Figure 1**.

The site is currently used for a range of light industrial uses, the largest being Prysmian (a cable and electrical wire manufacturer). The site is flood affected, houses a local heritage item, riparian land and is subject to contamination.

The Planning Proposal (**Attachment A**) relates to land that is 32 ha in size and comprises of two major land holdings and 6 allotments of varying sizes. However, there are a further 16 allotments that make up the precinct that should also be included in the planning proposal. Refer to **Figure 2**.

This report considers the suitability of the proposed rezoning for the entire precinct, including the 16 independently owned allotments. Many of the reports that support the planning proposal only consider the key land holdings, consequently the accompanying reports contain discrepancies or information gaps which have arisen due to the differences between the land subject to the planning proposal and the broader precinct. Discrepancies are discussed in detail in the relevant sections of this report and the Gateway includes conditions which would require the proposal and the relevant accompanying studies to be updated to address the precinct as a whole.

A table comprising the sites address, Lot and DP details and size of each allotment is at **Attachment A1**.



Figure 1 Subject site (source: Economic Impact Assessment)

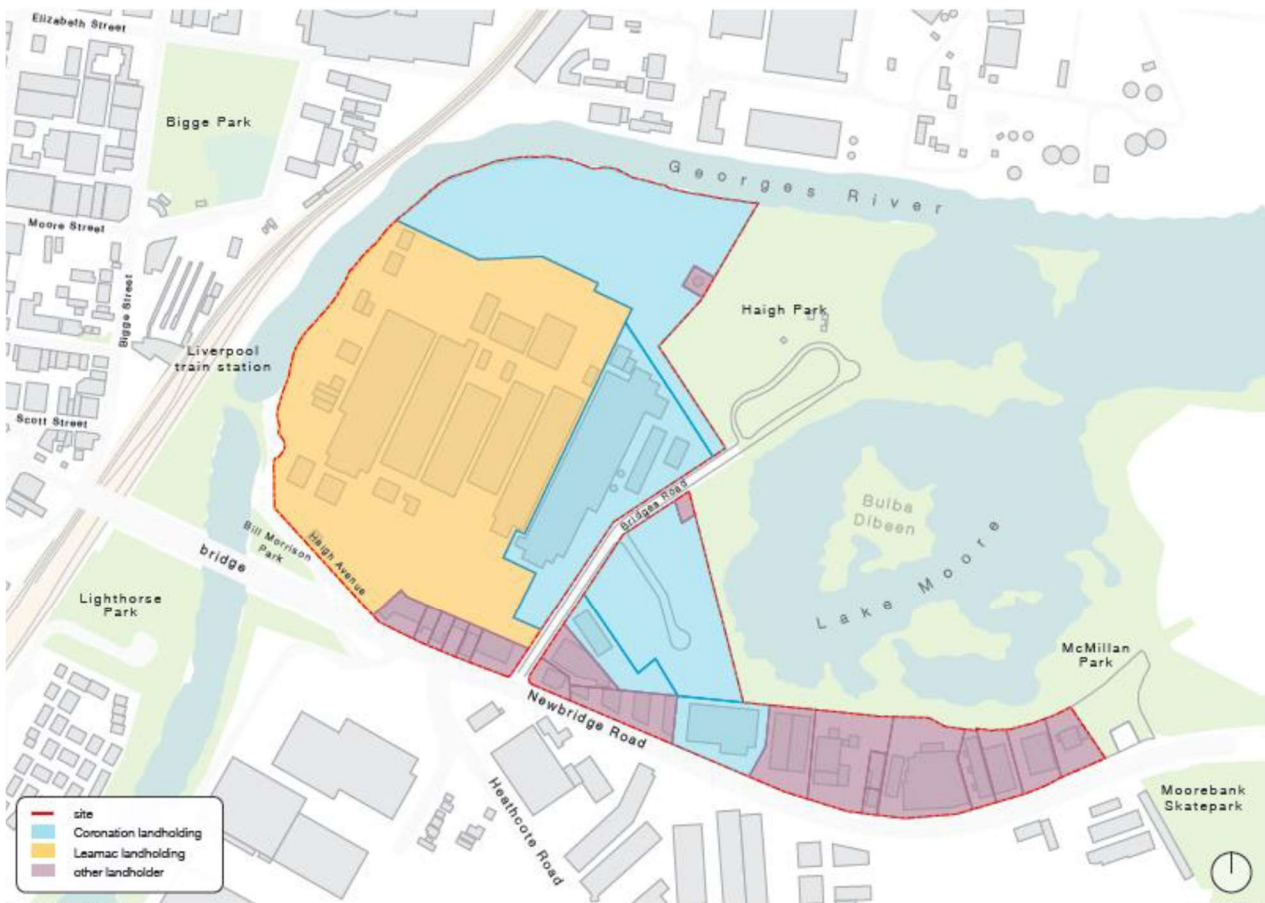


Figure 2: Land holdings within the 38.5 ha precinct (source: Planning Proposal)

1.4.2 Surrounding area

Liverpool central business district (CBD) is located west of the site across the Georges River. The CBD features major retail facilities, local services, community facilities, the Liverpool Train Station and Bus Interchange, and the Liverpool Innovation Precinct which includes campuses for the University of Wollongong and Western Sydney University. Across the river to the north of the precinct is the Liverpool Hospital and Scrivener Industrial Precinct. The Liverpool Water Recycling Plant is also located across the river to the north-east and an odour buffer partially intrudes into the site. Lake Moore and Haigh Park a Council owned Park are located to the east of the precinct. Bill Morrison Park adjoins the site to the south.

Newbridge Road runs along the southern boundary and is a major east-west road transporting traffic into the Liverpool City Centre. Newbridge Road comprises three lanes of traffic in each direction, separated by a central medium island. Newbridge Road reduces to two traffic lanes in each direction as the road crosses over the Georges River, at the south-western corner of the site. Newbridge Road is signposted at 60km/h for the section it runs along the precinct boundary and increases to 70km/h when travelling in an easterly direction towards Moorebank.

General and light industrial development is located across Newbridge Road, south of the site and low-density residential development is located to the west of Haigh Park and Lake Moore.



Figure 3: Site context (source: Urban Design Report)

1.5 Mapping

The mapping provided with the planning proposal is generally insufficient and is not considered suitable for community consultation. The proposal maximum building heights are presented in RLs not in building height metres, as is standard practice under the Liverpool LEP and the proposal does not include mapping showing all the existing and proposed map amendments. The proposal is to be updated, prior to exhibition, as follows:

- Include all maps relevant to the proposal subject to amendment, as follows:
 - Zoning
 - Height of Building
 - Floor Space Ratio
 - Special Provisions Area
 - Flooding
 - Key Sites Map
 - Heritage
- The Building Height Map is to express the building heights in metres not RLs.
- Show the existing and proposed maps side by side, in a format that is consistent with the Department's Standard Technical Requirements for Spatial Datasets and Maps.
- It is noted that the Heritage Map depicts the whole western site, this needs to be updated to include the site which will retain the heritage items of high value.
- All maps are to include a legend, north star and scale bar and should clearly delineate the entire precinct.

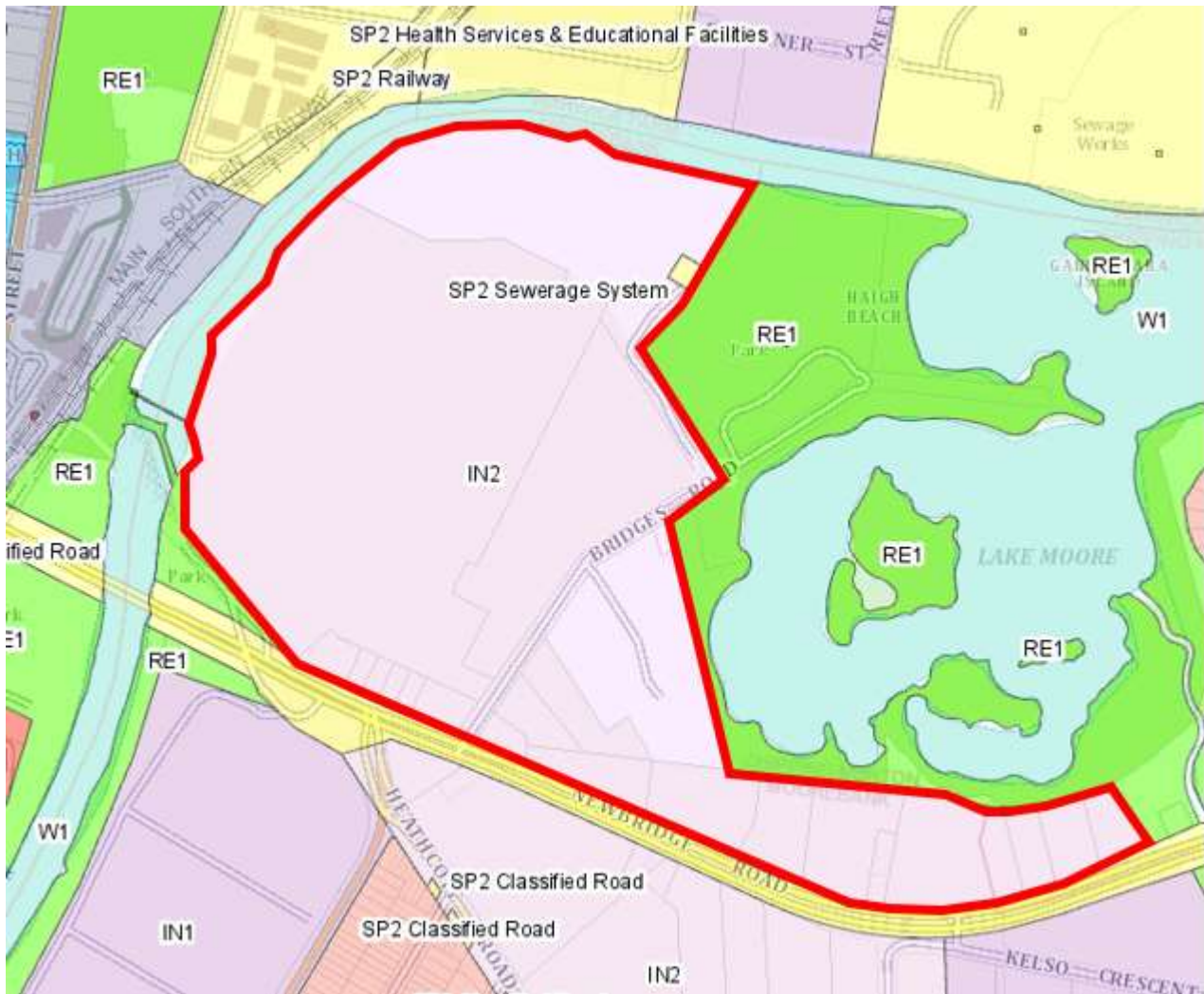


Figure 4 Current zoning map

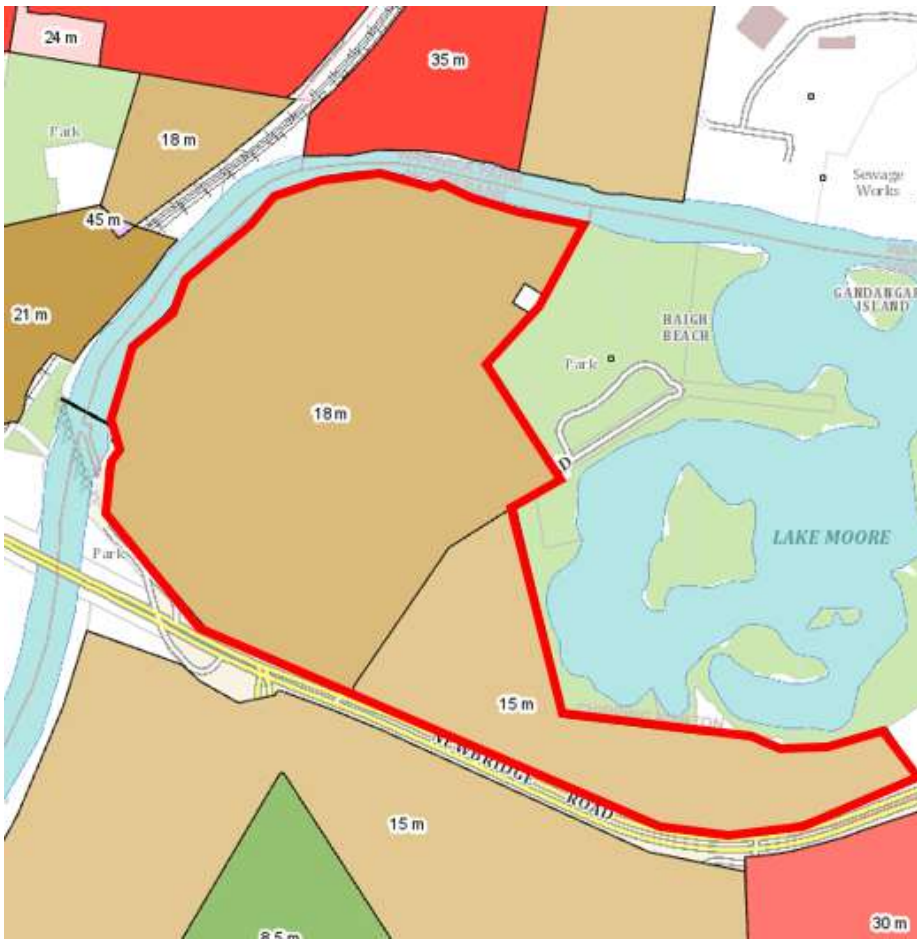


Figure 5 Current height of building map



Figure 6 Current floor space ratio map

1.6 Background

1.6.1 Flooding

A planning proposal seeking to rezone land at Moore Point, prepared by Mecone, on behalf of the Joint Landowners Group (Coronation Properties and Leamac Property Group) was lodged with the Department for Gateway in December 2020.

At this time Liverpool Council was finalising a Regional Flood Evacuation Analysis which was due for completion in early 2021. Given the range of flooding constraints in the area, the Department wrote to Council in January 2021, requesting the proposal be resubmitted once the Flood Evacuation Analysis was completed and its findings could assist to inform the proposal. The advice was to relodge once the findings of Council's Regional Flood Study can inform the proposal.

The Georges River Flood Evacuation Analysis was finalised in March 2022.

The planning proposal was relodged by Liverpool Council for Gateway on 4 May 2022.

1.6.2 2022 Flood Inquiry

In March 2022, the NSW Government commissioned an independent expert inquiry into flooding and the findings were publicly released on 18 August 2022. The inquiry recommended a review of planning rules for developing on flood-prone land, and the importance of NSW taking a greater proactive, risk-based approach to flooding and land-use planning decisions.

Part of this risk-based approach included the recommendation of developing new flood planning levels for high-risk catchments to be determined by a new NSW Reconstruction Authority (the Authority), which could take up to three years to complete.

The Department reviewed current planning proposals and State-led rezonings in respect to the flood risk each proposal presents, which reflects the recommendations of the Flood Inquiry and the Australian Institute for Disaster Resilience framework, to determine if proposals can proceed or whether further flood risk and mitigation measures and evacuation capacity increase was required.

The Department sought advice from a Flood Advisory Panel regarding the flood risk associated with certain high risk planning proposals and other planning-related matters considering the recommendation of the NSW Flood Inquiry. These Panels, informed by technical specialists, identified flood risk, mitigation methods and evacuation capacity for the proposal and surrounding areas. This advice will be used by the Department to inform the determination of the proposals as well as guide development at a Development Assessment stage.

The Advisory Panel met with the applicant, the Department, Liverpool Council and Transport for NSW and considered additional materials provided by Council and Proponent responses to questions on notice. The recommendations from the Advisory Panel are attached (**Attachment A2**). The advice from the panel cannot be applied as a guide to other planning proposals or areas as the advice is very unique to this site.

Flooding is further discussed in section 5.4.4.2

1.6.3 Council request for Department to take an active role in the planning for Moore Point

Council has written to the Department on several occasions requesting DPE takes an active role in the planning for Moore Point, due to the scale of the precinct and the Department's past experience with delivering large precincts and in co-ordinating a whole of government approach that will be required for a precinct of this scale.

In December 2022 the Department released the State-assessed planning proposal pathway guidelines which is part of the Rezoning Pathways Program. Under the state-assessed planning proposal pathway, the Department may assess a planning proposal as a state-assessed planning proposal where specific criteria are met and Departmental capacity and resources allow. One of the criteria that needed to be met was that the project is not subject of an active planning proposal lodged within the system. Given that this Planning Proposal has already been lodged to Council and to the Department for Gateway it does not meet this criterion. For this reason, Liverpool City Council is to be the Planning Proposal Authority while the Department will be the Plan Making Authority.

The Department acknowledges the size of this project and its significance to Liverpool LGA. The Department will work closely with Council where possible to assist in the assessment of the Planning Proposal as well as assist in coordinating input from other State agencies, so the milestones specified in the Gateway determination can be met.

2 Need for the planning proposal

The planning proposal is not the result of any strategic study or report. The proposal is a site-specific rezoning request initiated by the two major landowners.

The planning proposal was accompanied by a suite of studies (**Table 1**) that identify the subject land as being capable of supporting the proposed development (subject to agency and community consultation).

The planning proposal is considered the most appropriate means of rezoning the subject land.

3 Liverpool City Council

In its consideration of the proposal Council raised the following concerns and sought further information from the proponent, as follows:

- The precinct needs to be complementary to and not in competition with the Liverpool CBD:
 - Further information on how the proposed scale of the development, which is higher than that of the existing Liverpool CBD will be complementary to the existing centre.
- Additional justification for the proposed bulk and scale. Council requested further information be provided to support the proposed building heights, FSR and yield including an analysis of large (>10ha) infills sites in Sydney for comparison. The analysis should include dwelling and population densities per ha.
- Update the proposal to show land identified to be public open space as zone RE1 Public Recreation, including a 40m wide RE1 zoned along the river and Moore Point.
- Provide a mechanism such as a public benefit offer to embellish and transfer ownership of land zoned RE1 to Council for its consideration.
- Open space:
 - The amount of development and projected population will significantly increase the need for a range of open space types to meet the need of the community.

- Best practice requirements for open space is approximately 9 -10sqm per resident.
- Council's analysis found that even with Haigh Park included in open space calculations the proposal does not meet this benchmark.
- The proposed open space is insufficient in terms of size and variety for the intended uses. The current yield seems too high to support the open space needs for the precinct.
- The proposal needs to ensure all open space is within at least 200m of open space, this may necessitate the inclusion of a park close to Newbridge Road. This park should be a minimum of 0.5ha
- Further detail on how open space provisions will work for the proposed primary school.
- Provide an area for a district level sports field adjacent to Haigh Park. Council has concerns regarding the use of Haigh Park as a site to meet the developments active recreational demand, without associated detailed assessments related to flooding, ERP zones and native vegetation. Active recreation should be primarily addressed within the development area, while Haigh Park may be able to accommodate some space for active recreation Council requires one high level district level sports field to be accommodated on site, preferably adjacent to Haigh Park. This will require the PP, urban design report/structure plan be updated to remove buildings from this area to enable additional open space.
- Block Massing - Council requested additional information be provided in relation to block massing from a variety of perspectives and in particular around the heritage administration building
- Solar access:
 - Council request shadow diagrams be provided so consideration can be given to the impact of the development as described in the Urban Design study on the river, foreshore and assets such as Haigh Park and Lake Moore.
 - Council requested the sun access controls for the foreshore area be revised to include the time period 10am – 2pm
- Affordable housing – it is noted in the Community Benefits Analysis the site could deliver at least 5% affordable housing for key workers however no mechanism for the provision of affordable housing has been identified.

Council planning officers confirmed that this information has not been provided and this information was not provided with the proposal when it was lodged for Gateway. Council's requests for additional information been included under the relevant sections of this report. The above matters have been included as conditions in the Gateway.

4 Strategic assessment

DPE's Planning Circular (PS 16-004) notes that a key factor in determining whether a proposal should proceed to Gateway determination should be its strategic merit and site-specific merit. It is considered that the planning proposal generally gives effect to the relevant strategic documents as outlined in the following section.

4.1 District Plan

The site is within the Western City District and the Greater Sydney Commission (now the Greater Cities Commission) released the Western City District Plan on 18 March 2018. The plan contains planning priorities and actions to guide the growth of the district while improving its social, economic and environmental assets.

The Department is satisfied the planning proposal gives effect to the District Plan in accordance with section 3.8 of the *Environmental Planning and Assessment Act 1979*. The following table includes an assessment of the planning proposal against relevant priorities.

District Plan Priorities	Justification
Planning Priority W4 Fostering healthy, creative and culturally rich and socially connected communities	The proposal seeks to provide housing, jobs, services and recreational facilities, open space, walkable streets, safe pedestrian and cycling routes that connect to the adjoining CBD to assist in promoting physical activity and to provide a place of social connectivity for people of all ages.
Planning Priority W5 Providing housing supply, choice and affordability, with access to jobs, services and public transport	<p>The proposal seeks to provide housing, jobs, services, recreational facilities, open space and pedestrian and cycling routes within the precinct or connects with existing public transport and the jobs and services in the Liverpool CBD.</p> <p>However, the proposal does not provide sufficient detail on the housing typologies to be delivered within the precinct and does not include measures to improve housing affordability. Further information is required to demonstrate the proposal gives effect to the provision of housing choice and affordability. This has been requested through a Gateway condition.</p>
Planning Priority W6 Creating and renewing great places and local centres and respecting the District's heritage	<p>The proposal is seeking to renew the site by creating new dwellings, jobs, education facilities and services. The proposal also seeks to renew the site by enhancing the river foreshore to create a publicly accessible riverfront interconnected by a network of parks, pedestrian and cycle ways and open space.</p> <p>The District Plan recognises the importance of heritage in contributing to identify and place making and seeks to identify, conserve and enhance heritage. However, the proposal does not adequately address the sites heritage attributes or outline how these attributes will be respected, protected and preserved. While the proposal seeks to conserve and adaptively reuse some aspects of the site's heritage, it also propose to remove items of high heritage value. At this time, insufficient information has not been provided to demonstrate the heritage values of the buildings or the potential impacts of removing them. As such, the Department is not satisfied the current proposal has demonstrated an acceptable heritage outcome for the site.</p> <p>To give effect to the Planning Priority W6 of the District Plan the following information is required:</p> <ul style="list-style-type: none"> • A Heritage Study, prepared by a suitably qualified heritage specialist, that considers the heritage attributes of the site, the importance of these items, the impacts of removing part or all of these items and a recommendation on whether the proposed development will adequately respect, protect and preserve the heritage attributes of the site. • All plans provided (including structure plan/master plan) shall show the retention of all heritage items of high significance. • The height and FSR to be reconsidered around the heritage items to reduce the impact and views of heritage items of high significance. • The Gateway will include a condition requiring the provision of this information, prior to public exhibition.

District Plan Priorities	Justification
<p>Planning Priority W7 Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City</p>	<p>The site's location adjacent to the Liverpool CBD, and the delivery of the three proposed pedestrian bridges, will enable the proposed development to utilise existing infrastructure assets within the Liverpool CBD including the Liverpool Train Station, the Liverpool Hospital and surrounding supporting health services, the Wollongong and Western Sydney University campuses and Haigh and Bigge Park.</p> <p>The precincts' location has the potential to minimise the need to fund additional infrastructure, assists in delivering the 30-minute city goal and gives effect to this priority.</p>
<p>Planning Priority 12 Protecting and improving the health and enjoyment of the District's waterways</p>	<p>The priority recognises waterways are natural assets, resources and recreational destinations and aims to reconceptualise waterways as infrastructure assets that provide environmental, social and economic benefits using an integrated approach that seeks to protect this environmentally sensitive land within a network of green infrastructure.</p> <p>The proposal seeks to connect Haigh Park to Bigge Park via the riverfront to create an interconnected network of open space including pedestrian and cycle paths, tree canopy, riverfront public leisure space with decks and pontoons to allow direct engagement with the riverfront by extending out to the Georges River. However, sufficient information has not been provided to enable a comprehensive assessment of the proposed developments potential impacts on the river and the riparian corridor.</p> <p>This is addressed under section 5.4 Environmental Impacts and the Gateway has been conditioned to require additional information to give effect to this priority.</p>
<p>Planning Priority W14 Protecting and enhancing bushland and biodiversity</p>	<p>This priority seeks to protect and manage urban bushland and enhance remnant vegetation. The proposal has provided insufficient and inconsistent information, which prevents a comprehensive assessment of potential impacts on urban bushland from being undertaken. The Gateway has been conditioned to require the provision of additional information including the preparation of a Landscape Plan and updates to the Biodiversity and Riparian Reports. Refer to section 5.4 Environmental Impacts.</p>
<p>Planning Priority W18 Delivering high quality open space</p>	<p>The Plan recognises the importance of green space and requires large urban renewal initiatives to demonstrate how the quantity of, or access to, high quality and diverse local open space is maintained or improved.</p> <p>The proposal has provided insufficient and inconsistent information to allow a comprehensive assessment of green space to be undertaken. The Gateway has been conditioned to require the provision of additional information including the preparation of a Landscape Plan and updates to the Biodiversity and Riparian Reports. Refer to section 5.4 Environmental Impacts.</p>
<p>Planning Priority P20 Adapting to the impacts of urban and natural hazards and climate change</p>	<p>The site is flood affected and the Plan advises against locating new urban development in areas exposed to natural and urban hazards and consider options to limit the intensification of development in existing urban areas most exposed to hazard. This is discussed more in Section 5.4. of this report.</p>

The planning proposal seeks to provide additional housing and jobs and in proximity to the jobs, services, facilities and public transport available in the Liverpool CBD. The proposal gives effect to the District Plans priorities to deliver a liveable, productive and sustainable Western Parkland City, will assist to strengthen Liverpool CBD as a strategic centre and would give effect to the 30-minute city aspiration.

However, it is difficult to determine if the proposal adequately gives effect to priorities that address the provision of housing diversity and affordability or the protection of open space, biodiversity, natural hazards, waterways and heritage.

To ensure the proposal gives effect to the Western City District Plan further information is required to ensure the proposal seeks to deliver the following:

- A range of housing types, tenure and affordable housing.
- Adequate provision of green open space.
- Adequately protects and enhances biodiversity values and riparian land.
- Adequately protects and improves the health and enjoyment of the District's waterways.
- Adequately protects, conserves and respects the District's heritage.

These issues are addressed in greater detail under Section 5 Site-specific assessment and the Gateway has been conditioned accordingly.

4.2 Liverpool Collaboration Area Place Strategy

The Place Strategy established a vision of the Liverpool Collaboration Area and sets priorities and actions to deliver the vision. The Moore Point Precinct is identified under the Strategy as Area 10 Georges River North.

Table 4 Liverpool Collaboration Area Place Strategy assessment

Place Strategy Priorities	Justification
Priority 1: Plan for movement and place functions in Liverpool City Centre, improve accessibility and walkability, and reduce congestion in and around the centre	The proposal give effect to this priority as it seeks to provide three pedestrian bridges and an interconnected network of pedestrian and cycle paths to connect the precinct to the Liverpool CBD, Liverpool Train Station, Liverpool Hospital and supporting health services and Haigh and Bigge Park. Generally, the proposal seeks to improve accessibility, walkability, public transport usage and seeks to reduce car usage and congestion.
Priority 4: Create and renew great places for people	<p>The proposal seeks to deliver a mixed-use development which seeks to adaptively reuse the exiting heritage building to create a mix of uses orientated around the foreshore. The proposal also seeks to redevelop the foreshore to create a public riverfront comprising a mix of open space, parks, pedestrian and cycle pathways and decks and pontoons to allow direct engagement with the riverfront, which gives effect to this priority.</p> <p>However, insufficient detail has been provided to demonstrate if the proposal will deliver a diverse urban form, sufficient green space across the whole precinct and to ensure biodiversity and riparian values of the river are protected. These matters will be</p>

Place Strategy Priorities	Justification
	addressed throughout the assessment process via Gateway conditions.
Priority 5: Provide social and civic infrastructure for current and future generations	The proposal was supported by a Community Benefits Analysis which identified social infrastructure required to be delivered by the development. However, as final job and dwelling numbers have yet to be determined (once changes are made) and a mechanism for the provision of local and state infrastructure has not been provided, it is unclear if the proposal give effect to this priority. These matters will be addressed throughout the assessment process via Gateway conditions.
Priority 8: Develop a network of high-quality open space linked by the Greater Sydney Green Grid and invest in improvements to the Georges River and its foreshores	<p>The aims of this priority seek to improve the quality, environmental amenity and useability of the riverbank.</p> <p>The proposed development seeks to enhance and maximise the usability of the river by creating an interconnected network of public open space including pedestrian and cycle paths along the riverfront connecting the city centre to Haigh Park. The proposal also seeks to activate the riverfront by creating parks and public open spaces with decks and pontoons to allow direct engagement with the riverfront.</p> <p>Insufficient detail has been provided to ensure that the environmental attributes of the riverfront are adequately addressed and protected. Additionally, details of the riverfront treatments and mechanisms for their delivery have not been provided.</p> <p>Consequently, further information is required to ensure the proposal give effect to this priority.</p>

The proposal is broadly consistent with the priorities under the Place Strategy. However further detail is required in relation to the provision of infrastructure and environmental attributes to ensure the proposal adequately gives effect the priorities under this Strategy. Sufficient information has been provided to give confidence that these matters can be addressed via Gateway conditions prior to exhibition.

4.3 Local Strategies

The proposal states that it is consistent with the following local plans and endorsed strategies. It is also consistent with the strategic direction and objectives, as stated in the table below:

Table 5 Local strategic planning assessment

Local Strategies	Justification
Local Strategic Planning Statement	The proposal is generally consistent with the planning priorities, directions and objectives of the Liverpool Local Strategic Planning Statement.

Local Strategies	Justification
Liverpool Local Housing Strategy	<p>The Strategy identifies Moore Point as being suitable to accommodate a new mixed-use precinct that provides a mix of commercial, retail, residential and community uses that proves sustainable employment, which is complementary to and not in competition, with the commercial core. The Strategy also notes that the redevelopment of the site will also provide an opportunity to realise the LSPS priority of improving connections to the Georges River.</p> <p>The proposal is generally consistent with the Strategy; however, the Gateway has been conditioned to require additional information to demonstrate that the proposed commercial uses will not undermine the CBD as a strategic centre.</p>

4.4 Local planning panel (LPP) recommendation

The Liverpool Local Planning Panel (LLPP) considered the planning proposal on 26 October 2020.

In its consideration of the proposal the Panel noted further investigations were required to determine the following appropriate yields and carrying capacity of the precinct, FSR, building heights, zone boundaries and the configuration of the precinct.

The panel noted the key attributes for determining the carrying capacity on the site include flooding, traffic, open space and provision of school facilities.

The LLPP also identified the following items requiring resolution for the future development of the precinct:

- Contamination.
- Offensive odour.
- Extent of the riparian zone buffer and its treatment.
- Urban design, noting the issues raised by Council's City Design and Public Domain Unit.
- Connectivity, which is vital for the successful integration of the precinct with its surrounding context.
- The quantum of affordable housing and the mechanism for delivering it. The Panel supports Council officer's recommended 5-10% affordable housing target.
- The quantum and extend to physical and social infrastructure to support a major new population and employment precinct.
- A suitable staging and sequencing plan to ensure appropriate infrastructure is in place to meet the progressive demands of the precinct as it is developed over its projected 25-year timeframe.

The LLPP found the planning proposal had strategic merit consistent with the broader policy context and the majority of the LLPP agreed that the planning proposal has site specific merit and considered it appropriate for the proposal to proceed to Gateway determination (**Attachment A3**).

It is noted that one panel member felt there was insufficient information to determine if proposal had site specific merit in relation to flooding, connectivity, Aboriginal culture and aquatic ecology.

Clarification for the matters listed above have been sought from the proponent through Gateway conditions. The Department believes that sufficient information has been provided relating to offensive odour and all matters relating to this issue can be addressed at Development Application stage.

4.5 Section 9.1 Ministerial Directions

The planning proposal's consistency with relevant section 9.1 Directions is discussed below:

Table 6 9.1 Ministerial Direction assessment

Directions	Consistent/ Not Applicable	Reasons for Consistency or Inconsistency
Focus Area 1: Planning Systems		
1.2 Implementation of Regional Plans	Consistent	The proposal gives effect to the relevant Regional Plan: The Greater Sydney Region Plan: A Metropolis of Three Cities.
1.4 Approval and Referral Requirements	Consistent	The planning proposal does not require provisions that require the concurrence, consultation or referral of development applications to a Minister of public authority.
1.5 Site Specific Provisions	Consistent	The proposal is not seeking to apply unnecessarily restrictive site-specific planning controls.
Focus area 3: Biodiversity and Conservation		
3.1 Conservation zones	Inconsistent	<p>This Direction requires planning proposals to include provisions that protect and conserve environmentally sensitive area.</p> <p>The amending plan is seeking to develop land identified as environmentally significant land but provides insufficient evidence to demonstrate the proposed development is consistent with this direction.</p> <p>A detailed discussion on the impacts of the proposed development on the sites environmentally sensitive land is under section 5.4 Environmental impacts. A Gateway condition has been imposed to provide further information regarding this Direction. It's the Department's opinion that this proposal can be consistent with this Direction once further information has been provided and changes made as part of the assessment process post Gateway.</p>

Directions	Consistent/ Not Applicable	Reasons for Consistency or Inconsistency
3.2 Heritage Conservation	Inconsistent	<p>Under this direction a planning proposal must contain provisions to conserve objects and places of heritage and indigenous heritage significance.</p> <p>The heritage report identifies areas of heritage significance are to be retained, however, key elements of these areas are identified to be demolished. Further a detailed heritage study on these items has been sought as a Gateway condition. Changes to the structure plan shall also be made to reflect the retention of all heritage items of high significance.</p> <p>Aboriginal Cultural Heritage has not been addressed and consultation has not occurred with relevant Aboriginal stakeholders. Consequently, the proposal is not supported by sufficient evidence to ensure consistency with this direction.</p> <p>The proposed developments impact on heritage is addressed under section 5.4.10 Heritage.</p> <p>It's the Department's opinion that this proposal can be consistent with this Direction once further information has been provided and changes made as part of the assessment process post Gateway.</p>

Focus area 4: Resilience and Hazards

4.1 Flooding	Inconsistent	<p>The objective of this Direction is to ensure development is consistent with the principles of the Floodplain Development Manual 2005 and provisions of an LEP are commensurate with flood behaviour both on and off the subject site.</p> <p>The site is identified being partially inundated by mainstream flooding from the Georges River. During significant floods there is potential for floodwaters to 'spill' from the Georges River leading to inundation of low-lying area of the Precinct along the western and northern boundaries. During major events such as the 1% Annual Exceedance Probability (AEP) flood there is potential for floodwaters to flow through the precinct towards Lake Moore in the east. The site is fully inundated during a probable maximum flood (PMF) event.</p> <p>Flooding is discussed in detail under Section 5.4.4 Flooding</p> <p>It's the Department's opinion that this proposal can be consistent with this Direction once further information has been provided and changes made as part of the assessment process post Gateway.</p>
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Directions	Consistent/ Not Applicable	Reasons for Consistency or Inconsistency
4.2 Coastal Management	Inconsistent	<p>This direction seeks to protect and conserve coastal areas and applies as the site is subject to coastal protections.</p> <p>To be consistent with this direction a proposal must comply with the relevant Acts and guidelines and must not rezone land that would enable increased development or more intensive land use on the land subject to coastal protections.</p> <p>The Urban Design Study indicates the land subject to coastal protections will be subject to development. Consideration of coastal management has not been addressed in the proposal under the discussion on environmental impacts and the proposal's consideration of this direction indicates it is 'justifiably inconsistent' as the urban design study envisages a better outcome than the current land uses. However, the proposal was not supported by a study considering the developments impacts on the land subject to coastal protections. Consequently, the proposal is considered inconsistent with this direction.</p> <p>Coastal Management is discussed in detail under Section 5.4.3 Coastal Management.</p> <p>It's the Department's opinion that this proposal can be consistent with this Direction once further information has been provided and changes made as part of the assessment process post Gateway.</p>
4.3 Planning for Bushfire	Inconsistent	<p>As the site is partly mapped as bushfire prone land this Direction applies. Consultation with the RFS must be done following receipt of a Gateway determination. This direction will remain unresolved until this has occurred.</p>
4.4 Remediation of Contaminated Land	Inconsistent	<p>This direction applies as the proposal seeks to carry out residential development on contaminated land.</p> <p>The Contamination Report submitted with the proposal identified that some parcels of land had not yet been investigated. Consequently, the planning proposal authority cannot be satisfied that the land is suitable or will be suitable, after remediation for the purposes of the proposed land uses and is inconsistent with this direction. It's the Department's opinion that this proposal can be consistent with this Direction once further information has been provided.</p> <p>Contamination is discussed in detail under Section 5.4.5 Contamination.</p>

Directions	Consistent/ Not Applicable	Reasons for Consistency or Inconsistency
4.5 Acid Sulfate Soils	Consistent	<p>This direction applies as the site contains acid sulfate soils. The objective of the direction is to avoid significant adverse environmental impacts of land that has a probability of containing acid sulfate soils.</p> <p>The proposal was supported by a Preliminary Acid Sulfate Soil Management Plan which indicates the majority of the site comprises Acid Sulfate soils class 5, which has a low probability of the occurrence of acid sulfate soils. However, part of the site is identified as containing Acid Sulfate Soils class 3, which poses a severe environmental risk if acid sulfate soil materials are disturbed by activities such as shallow drainage, excavation or clearing.</p> <p>A proposal may be inconsistent if the provisions of the proposal that are inconsistent are justified by a study which gives consideration to the objective of this direction.</p> <p>The Preliminary Acid Sulfate Soil Management Plan provides a description of the sites soil attributes, a description of potential impacts, management options and procedures, details of a focussed monitoring program, procedures for reporting and consultation with co-ordination authorities and contingency measures.</p> <p>The proposal is considered consistent with this direction.</p>

Focus area 5: Transport and Infrastructure

5.1 Integrating Land Use and Transport	Inconsistent	<p>This direction seeks to ensure development design improves access to housing, jobs and services by walking, cycling and public transport, reducing dependence on cars and reducing travel demand.</p> <p>The proposal indicates it will provide three pedestrian bridges over the Georges River, connecting the precinct with jobs, public transport and the services in the CBD. The proposal also proposes to deliver a bus interchange and pedestrian and cycle paths through the precinct linking the CBD with Haigh Park. However, a mechanism for ensuring the delivery of the connecting pedestrian bridges and other infrastructure has not been provided.</p> <p>Further, the proposal is not supported by a detailed traffic impact assessment for the precinct which would identify traffic infrastructure required by the precinct and details on the provision of car parking.</p> <p>To ensure consistency with this direction, a detailed Traffic Impact Assessment and mechanism for the proposed infrastructure is required. Traffic infrastructure is discussed further in this report.</p>
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Directions	Consistent/ Not Applicable	Reasons for Consistency or Inconsistency
5.2 Reserving Land for Public Purposes	Consistent	As Council endorsed the proposed zoning of land for public purposes – RE1 Public Recreation and requested the proposal be sent to the Department for Gateway, the proposal is not considered inconsistent with this direction. A condition has been imposed requesting zoning maps to be changed to include a 40m buffer along the river/lake to be RE1 zoning.
5.3 Development Near Regulated Airports and Defence Airfields	Inconsistent	<p>This direction applies as the proposal seeks to rezone land and alter provisions on land near the regulated Bankstown Airport.</p> <p>The direction requires the relevant planning authority to consult with and take into account any advice from the lessee/operator of that airport when preparing a planning proposal.</p> <p>The proposal is inconsistent as consultation with the lessee/operator has not occurred. Consultation is required as part of a Gateway condition.</p> <p>A discussion on the proposals consistency with this direction is under section 5.3 Airspace.</p>
Focus area 6: Housing		
6.1 Residential Zones	Consistent	This proposal is considered consistent with this Direction as the proposal seeks to deliver an infill, mixed use precinct delivering housing with access to infrastructure and services.
Focus area 7: Industry and Employment		
7.1 Business and Industrial Zones	Consistent.	<p>This proposal applies as the site is currently zoned for industrial uses and a proposal must retain and not reduce the total potential floor space for industrial uses in industrial zones, unless the provisions in the planning proposal that are inconsistent are in accordance with the relevant District Plan.</p> <p>The District Plan identifies the Liverpool Collaboration Area as an area for residential and employment opportunities.</p> <p>The Liverpool Collaboration Area identifies the Liverpool CBD and surrounding areas including Moore Point as suitable to be developed into a metropolitan centre with jobs, dwellings situated along the Georges River supported by the health, education and retail precincts in the centre.</p> <p>Consequently, the proposal is not considered inconsistent with this direction.</p>

4.6 State environmental planning policies (SEPPs)

The planning proposal is consistent with all relevant SEPPs with the exception of SEPP (Resilience and Hazards) 2021, SEPP (Biodiversity and Conservation) 2021, and SEPP No 65. Design Quality of Residential Apartment Development, as discussed in the table below.

Table 7 Assessment of planning proposal against relevant SEPPs

SEPPs	Requirement	Consistent/ Not Applicable	Reasons for Consistency or Inconsistency
SEPP (Resilience and Hazards) 2021	Chapter 2 Coastal management	No	<p>The site is identified as being subject to coastal protections. The proposal doesn't include a discussion on coastal management and the proposal isn't supported by a study which considers the proposed developments impacts on the site's coastal protections and coastal management was not addressed under the Riparian Strategy or the Biodiversity Study and the proposal.</p> <p>This is addressed in detail under section 5.4.4 Foreshores and Waterways and Coastal Management.</p> <p>It's the Department's opinion that this proposal can be consistent with this SEPP once further information has been provided.</p>
	Chapter 4 Remediation of land	No	<p>The Contamination, Acid Sulfate Soils and Remediation Strategy does not fulfil the requirements of a Stage 1 Preliminary Site Investigation as outlined in the relevant guidelines.</p> <p>This is discussed in detail under section 5.4.5 Contamination.</p> <p>It's the Department's opinion that this proposal can be consistent with this SEPP once further information has been provided.</p>
SEPP (Biodiversity and Conservation 2021)	Chapter 2 Clearing vegetation in non-rural areas	No	<p>The proposal indicates the land along the riverfront is proposed to be redeveloped to include decks, pontoons and areas of hardstand which is likely to require the removal of vegetation. However, the supporting Biodiversity Report did not consider the impacts of the proposed development on the riverfront land proposed to be zoned RE1 Public Recreation. Consequently, insufficient information has been provided to determine if the proposal is consistent with this SEPP.</p> <p>It's the Department's opinion that this proposal can be consistent with this SEPP once further information has been provided and changes made as part of the assessment process post Gateway.</p>

SEPPs	Requirement	Consistent/ Not Applicable	Reasons for Consistency or Inconsistency
	Chapter 4 Koala habitat protection 2021	Yes	<p>This Chapter applies as Liverpool Council is identified as land to which this Chapter applies, and the Biodiversity Report indicated that koala/s have been recorded as being present 200m south of the study area (2017) in the past 18 years. Prior to development consent being issued the consent authority may require the preparation of a Koala Assessment Report to assess the impacts the proposed development will have on Koalas or Koala habitat.</p> <p>This is discussed in detail under section 5.4.1.</p>
	Chapter 6 Bushland in urban areas	No	<p>The proposal incorrectly advises this Chapter does not apply; however, the intent of the proposal is to protect and preserve bushland within urban areas and the Liverpool LGA is identified as land to which this SEPP applies.</p> <p>The Biodiversity Report advises that as the proposal does not provide approval to clear vegetation the SEPP does not apply.</p> <p>However, clause 6.9 states that when preparing a draft local environmental plan the council is to have regard to the general and specific aims of this Chapter and give priority to retaining bushland unless it is satisfied that significant environmental, economic or social benefits will arise which outweigh the value of the bushland.</p> <p>To ensure consistency with this SEPP the proposal is to be updated to address the general and specific aims of this Chapter.</p>
	Chapter 11 Georges River Catchment	No	<p>The aims of the SEPP are to protect and preserve the water quality, river flows, bushland and sensitive environments such as wetlands and freshwater and estuarine ecosystems. The proposal is supported by a Riparian Strategy, Biodiversity Report, Flood Impact Assessment and Acid Sulfate Management Plan. However, none of these reports adequately assess the impacts of the development on the sensitive wetlands and freshwater and estuarine ecosystems.</p> <p>The Gateway has been conditioned to require additional information on the developments impacts on these environments.</p>

SEPPs	Requirement	Consistent/ Not Applicable	Reasons for Consistency or Inconsistency
SEPP No 65. Design Quality of Residential Apartment Development		No	<p>The proposal does not contain sufficient information to demonstrate the proposed bulk, scale, height and open space is satisfactory to achieve a high level of amenity for its residents. The proposal also doesn't provide sufficient information to determine if the proposal will be able to comply with solar amenity provisions set out under the ADG.</p> <p>The Gateway has been conditioned to require additional information to support the proposed heights and FSRs and to demonstrate compliance with SEPP 65 and the ADG.</p>

The proposal includes a table that addresses the relevant SEPPs, however the proposals consideration of some of the SEPPs is incorrect and the table is required to be updated to be consistent with the recent SEPP amendments. The table must be updated to accurately address the following SEPPs:

- SEPP (Resilience and Hazards) 2021
 - Chapter 2 Coastal management
 - Chapter 4 Remediation of land
- SEPP (Biodiversity and Conservation) 2021
 - Chapter 2 Clearing vegetation in non-rural areas
 - Chapter 4 Koala habitat protection 2021
 - Chapter 6 Bushland in urban areas
 - Chapter 11 Georges River Catchment
- SEPP No 65. Design Quality of Residential Apartment Development.

4.7 Employment zone reform

The Department has undertaken a reform of the employment zones. If a planning proposal is seeking to alter zoning of business and/or industrial zones or insert or amend Schedule 1 Additional permitted uses the proposal is required to address the transition of the incoming employment zones by including an employment zones transition table ahead of public exhibition, to ensure the proposed LEP amendments align with the broader reform intent.

As this proposal is seeking to rezone the land from industrial to B4 Mixed Use and B6 Enterprise Corridor and introduce an additional permitted use to Schedule 1 to enable the continuation of industrial uses, the proposal is required to be updated prior to public exhibition to include an employment zones translation table.

The Gateway has been conditioned accordingly.

5 Site-specific assessment

DPIE's Planning Circular (PS 16-004) notes that a key factor in determining whether a proposal should proceed to Gateway determination should be its strategic merit and site-specific merit. It is considered that the planning proposal meets the strategic merit test as well as site-specific merit to proceed to Gateway, as outlined in the following section.

5.1 Bulk and scale

5.1.1 Density

A key policy initiative of the NSW Government is to increase housing supply and the proposal seeks to deliver 14,789 dwellings creating homes for approximately 34,000 people. This equates to a gross residential density of approximately 462 dwellings per ha, or a residential population density of 961 persons per hectare. The proposal seeks to provide approximately 23,000 jobs. However, these numbers are subject to further investigation and may change throughout the planning proposal process prior to the determination of the proposal post exhibition.

The population and job targets for the site are much higher than any other area located in the Liverpool LGA, including the Liverpool CBD, which has a density of 154 people per ha. Further the proposed density is higher than other similarly scaled urban renewal precincts in Sydney, such as Green Square, which has a population density of 211 persons per ha. The proposed densities would make Moore Point one of the densest areas in Australia.

The densification of this precinct will increase the demand on roads, community services, parks and open spaces. To ensure Moore Point becomes a desirable place to live, the provision of the proposed high-density development will be required to be supported by a variety of social infrastructure, community facilities, open space, parks and other enabling supporting infrastructure such as roads.

To ensure a good quality high-density development can be accommodated on the site, consideration of the proposed bulk and scale, open space, solar amenity, connectivity and staging have been addressed below.

5.1.2 Proposed density

The proposal seeks to apply two building heights of 136RL and 108RL and two FSR provisions of 4.2:1 and 3.5:1 across the site.

The Urban Design Report, prepared by SJB Urban in April 2020, breaks the precinct down into seven sub-precincts. The sub-precinct plans show one indicative building layout, on one block within each precinct, which provides simplistic details on building height, floor space ratio, podium and tower heights, setbacks and separation, solar amenity and parking.

The proposal advises additional technical analysis and sub-precinct design and a site specific DCP will be prepared that articulates the built form and planning controls for the site will be undertaken following the issue of a Gateway determination to rationalise the built form and address any matters raised through the assessment process.

5.1.2.1 Department's consideration of the proposed density

To assist in considering the proposed built form, the Department's Urban Design Team, Greener Spaces Team and the Government Architects Office were asked to review the proposal and consistently advised:

- The proposal contains insufficient information to determine if the site is suitable for the level of density and development proposed.

- Insufficient information has been provided to determine if the proposed development can achieve compliance with relevant legislative requirements, guidelines or best practice principles.

The above matters are addressed via Gateway conditions.

5.1.2.2 Liverpool Council and the Liverpool Local Planning Panel advised the proposal contains insufficient information to adequately determine if the proposed density is suitable for the site

Liverpool Council and the Liverpool Local Planning Panel also identified, the following:

- Additional information was required to determine the carrying capacity of the site and to support the appropriateness of the proposed building heights, floor space ratio and yield.
- Liverpool Council Planning Officers requested additional information showing massing, indicative building heights in metres, greater detail on transitions, street sections and setbacks, shadow diagrams, open space provision and raised concerns about the scale of development around Haigh Park and Lake Moore.
- The additional information requested by Council was not provided but has been conditioned in the Gateway.

5.1.3 Urban design

The key urban design issues identified by Department of Planning and Environment's assessing officer, the Urban Design and Greener Spaces Team, the Government Architects Office, Liverpool Council and the LLPP are as follows:

5.1.3.1 Lack of detailed design information

The lack of detailed design reference means most aspects of the design outcomes are unknown. The information provided in the Urban Design Report does not demonstrate compliance with State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development or the Apartment Design Guide for residential towers in terms of required setbacks, proposed heights, solar and daylight access, building separation, provision of apartment mix and typologies, deep soil planting and landscaping requirements and pedestrian and vehicular access.

To enable the density and urban design of the proposed development to be adequately assessed, the Gateway determination has been conditioned to require the following information:

- A detailed masterplan layout showing massing, podium and tower heights and setbacks, block measurements (block length and width) and road reserve measurements.
- The proposed developments interface with the following:
 - The river front
 - Proposed open spaces
 - Proposed education uses
- The (adapted) heritage precinct.
- Evidence of design compliance with the relevant guidelines.
- The preparation of a site specific DCP that articulates the relevant built form and planning controls for the site.

5.1.3.2 Building height and floor space ratio

The proposed building heights are expressed in RLs rather than metres, to prescribe the maximum height of building controls across the site, however, is inconsistent with how building heights are generally expressed in the Liverpool Local Environmental Plan.

Council comments

Council requested the proposal be updated to show building heights in metres and requested further information to support the proposed heights and densities, including an analysis of large (>10ha) infills sites in Sydney for comparison. An amended Demographic Analysis was provided which provided a comparison with other infill sites in Sydney (**Attachment A4**), however, the building heights and information to support the proposed heights and densities was not provided to Council to assist in its assessment of the proposal.

Urban Design Team

Additionally, The Department's Urban Design Team advised that showing the building heights in RLs fixes the FSR while the RL is reduced, which may result in squatter buildings with shorter floor plates, exhibiting excessive bulk and reducing solar access to other parts of the site. This assessment also found the proposed heights will result in FSR beyond the FSR provisions identified on the proposed FSR map.

The Urban Design Team were unsupportive of the proposed maximum building heights due to the risk of over development and lack of compliance with solar access requirements.

Department comment

To ensure adequate consideration is given to the proposed bulk and scale and to improve legibility, the Gateway has been conditioned to require the proposal be updated, prior to exhibition, as follows:

- To express building heights in metres. This will provide consistency with how building heights are shown in the Liverpool LEP 2008 and will assist in considering the sites building heights and accompanying FSR provisions.
- Provide a rational for the proposed FSR and HOB changes and a breakdown of assumptions used to calculate FSR.
- Provide more detail about the FSR calculations across the site, that consider ADG compliance and building metres in height.

5.1.3.3 Solar access

The proposal states it will maximise solar access by the strategic placement and orientation of uses and seeks to introduce site-specific controls relating to sun access. However solar diagrams were not provided in the submitted to the Department. Further, details of the area of land the site-specific overshadowing clause relates to are unknown as an accompanying map was not included in the proposal.

Council comment

Council requested block massing be provided to clearly demonstrate the proposed podium and building heights, tower massing and overshadowing impacts. Council also requested shadow diagrams be provided that show the impacts of the development on the river foreshore and assets such as Haigh Park and Lake Moore. Council also requested the solar access controls for the foreshore park should be for the period 10am – 2pm.

Department comment

The Urban Design Team's modelling found that the proposed residential density will not satisfy the solar access requirements of the ADG.

The Department supports Council's request that the solar access controls prevent overshadowing between 10am and 2pm, as the proposed high density residential and commercial mixed-use development is likely to generate a substantial daytime population of workers which will add to the demand for open space for recreation during the day.

The information provided does not demonstrate that the proposed development will satisfy the solar access requirements under the ADG or that the solar impacts to public open space have been adequately addressed. Although compliance with the ADG is a DA matter, there must be a level of certainty that the controls applying to the site will be able to result in DAs that can be approved, otherwise the new controls will be fundamentally flawed. Consequently, the Gateway determination has been conditioned to require the following:

- The provision of solar access diagrams that clearly demonstrate:
 - A solar envelope control indicating how built form development protects solar amenity of proposed public open spaces (including the passive and active foreshore parks, lakefront parks, Haigh Park and the linear park) for a solar access period between 10am – 2pm
 - A solar envelope control indicating how the solar amenity of the proposed school is addressed (location of school has not been clearly set yet)
 - Compliance with the relevant guidelines.

5.2 Open Space

The proposal is supported by an Urban Design Study, prepared by SJB Urban in April 2020 (**Attachment 5.1-5.2**) and Community Benefits Analysis, prepared by Cred Consulting in April 2020 (**Attachment A6.1-6.2**).

The Urban Design Study indicates the site is defined by the Georges River, Haigh Park and Lake Moore and that 20% or 7.7ha of the precinct will be new quality open space. Open space is proposed to be provided along the river and Lake Moore and through the centre of the site via an east – west link. The area identified for open space area along the river is proposed to be zoned RE1 Public Recreation, utilises the 40m wide riparian buffer and comprises flood prone land.

The development proposed to connect Haigh Park and Bigge Park via an interconnected network of open space including pedestrian and cycle paths, tree canopy and a riverfront public leisure space with decks and pontoons to allow direct engagement with the Georges River. A green spine is also proposed through the centre of the precinct from Lake Moore to the heritage buildings via a linear park, in an east-west direction.



Figure 7: Public domain and landscape structure plan (source: Urban Design Study)

Liverpool Collaboration Area Open Space Needs Assessment

The Assessment identified there is currently 195.56 ha of public open space within the Collaboration Area and that a large amount of this is not functional due to its riparian and/or drainage function, lack of accessibility or because it is providing other uses such as car parking. It identified that most of the sports facilities are operating at or near capacity and are located on the edge of the Collaboration boundary servicing a wider catchment area. The Assessment provided metrics and guidelines relating to size, design, shape, heat, shade, tree canopy, solar access, distribution, accessibility, diversity and constrained lands.

The Assessment found that the proposed provision of public open space for Moore Point Precinct was poor and that the following aspects of the Master Plan require critical review:

- The quantity of current and proposed future open space will not have the capacity to service the proposed high-density population.
- The central linear open space spine that is dissected by multiple streets will provide limited public open space opportunity. Such provision should not be considered functional park and should be assessed as “other” open space not forming part of the required local supply.
- There is a strong reliance on Haigh Park, however it is important to note that this facility currently has existing sporting uses and services a wider catchment than the Moore Point precinct. Much of the existing capacity of this park is already consumed by the wider demand for larger destination parks and active spaces.
- Large quantities of public open space along the Georges River will not be functional due to their topography and protection of riparian vegetation.
- The alignment of current proposed “recreation loop” dissects foreshore open space to the north.

- The configuration of the proposed playing fields at Haigh Park does not provide for flexibility in use. Increasing the number of hard courts is also strongly recommended.

Council comments

Council advised that the proposed yield seems too high to support the open space needs of the precinct and advised that the open space proposed is insufficient in terms of size and variety for the intended population and made the following requests in relation to the provision of open space:

- Provision of an additional 1.5ha of open space, adjacent to Haigh Park identified as 'open space investigation'.
- Land intended to be public open space should be zoned RE1 Public Recreation, including a 40m wide RE1 zone along the river and Lake Moore. The plans are to be amended to identify a minimum width of the river foreshore for public use.
- Identify a mechanism such as a public benefit offer to embellish and the transfer of ownership to Council should be proposed for discussion.
- Smaller open spaces such as corner of pocket parks should be provided to improve the distribution of open space within the blocks and increase the overall open space provision.
- Ensure all residential development is at least 200m to open space. This may necessitate the inclusion of a park close to Newbridge Road. This park should be a minimum of 0.5ha.
- Further detail on the open space provisions for the primary school.
- The active recreation demand triggered by the proposal should be primarily addressed within the development area. Council requires one district level sports field be accommodated on site, preferably adjacent to Haigh Park.
- The relocation of the proposed location of the community centre block as its current location (i.e. south-east corner of the green corridor-linear park) limits access to Haigh Park. Council recommended the community centre block be relocated north of the green corridor (i.e. north-east corner of green corridor-linear park) to enable the community centre block to face both Haigh Park and Lake Moore.
- The master plan identifies key recreation paths along the eastern banks of the Georges River but does not indicate any points of integration for Bill Morrison Park with the proposed River Foreshore. It is requested that the plan is amended to include a section that outlines the integration of Bill Morrison Park and larger green reserve on the eastern banks of Georges River with the proposed River foreshore within the development.

An additional 1.5 ha of open space was identified as 'open space investigation' in an addendum to the Urban Design Study, however, the remainder of Council's requests have not been addressed and no additional information was lodged with the proposal for Gateway.

Department consideration of open space provisions

In considering the open space needs for the precinct the Department sought advice from the Government Architects Office and the Department's Urban Design and Open Space Teams. They raised the following concerns:

- The provision of open space is low for the proposed density and the proposed densities will have a significant impact on capacity of existing and proposed infrastructure including open space
- Public open space outside the precinct does not have the capacity to accommodate additional demand and the sites density imposes on the river corridor and the quality of this open space.
- The majority of the green space is located in the riparian corridor and the proposal does not identify the treatments proposed for this space.

- The linear park is not proposed to be zoned RE1 Public Recreation. The use of this zone would provide surety that the land would be developed and preserved as public open space.
- The dimensions and treatment for the linear park have not been provided, the linear park appears narrow, solar access is unlikely to be achieved and this space may not be suitable to be included in the open space calculations.
- The linear park doesn't provide total through site connectivity to the river due to the siting of the heritage buildings.

Department comment

The international standard for open space prescribed by the World Health Organisation is 9m² per person, the NSW Government Architects Office Draft Greener Places Design Guide recommends locating open space within 200m of dwellings, in areas of high density and the NSW Office of Sport district sports space benchmark is a 2 double playing fields (4 fields in total) for every 10,000 people.

The Community Benefits Analysis, prepared by Cred Consulting, April 2020 (**Attachment A6**) advised that in high density residential area, residents should have access to semi-private, communal and local level open space, as well as access to activity and play opportunities and district and regional level open space and identifies the Moore Point Precinct may be required to deliver 3 multipurpose courts, 4.5 young and 4 older playgrounds, 3 district sports fields (2 double playing fields – 4 fields), 2 outdoor fitness stations and 1 indoor recreation centre. The Analysis suggests 1 new sports field could be delivered within the precinct and embellishments to Haigh Park could deliver additional sports fields.

In considering the supporting documentation, Council comments and advice provided by the Government Architects Office and the Open Space team, the Department has found the following:

- The application of percentage-based metrics for the provision of open space is problematic as it does not account for density or open space capacity limits.
- The quantum of open space proposed under the planning proposal is relatively low compared to the proposed density, providing around 2.5m² of open space per person.
- The majority of the open space is located within the riparian zone.
- The number of jobs proposed for the precinct (20,000) is significantly higher than that projected under the Liverpool Collaboration Area Open Space Needs Assessment.
- Up to 3 double playing sports fields may be required, however, no sports fields are identified on the masterplan. It is noted that Council has requested that these should not be located in Haigh Park.
- There are no parks identified in the southern end of the precinct which would mean residential development in this area of the precinct is not within 200m of open space.
- The proposal is not supported by a detailed open space study, that identifies the number and location of playgrounds, multipurpose courts and sports fields.
- The proposal is not supported by a detailed landscape plan that details the treatments proposed for area identified as open space.

The Department's assessment of the proposed open space has found that insufficient information has been provided to satisfactorily determine if the proposal will be able to provide adequate public open space to support the proposed densities. To ensure the open space outcomes can be adequately considered, the Gateway has been conditioned, to require the following:

- A calculation of open space that excludes the protected riparian corridor buffer zones.
- Confirmation of what percentage of the proposed public open space is located on areas of flood-prone land.

- A detailed open space report which addresses the needs and demand for public open space and recreation facilities for the proposed development.
- Update the plans to identify a minimum 40m width of the river foreshore for public use.
- Identify the location of a park in the southern end of the precinct to ensure all residential development is located within 200m of public open space and ensure it is at least 0.5ha in size.
- Provide options to accommodate the additional 1.5ha open area adjacent Haigh Park and provide at least one district level sports field within this area.
- Identify a mechanism such as a public benefit offer to embellish and transfer of ownership to Council for public open space should be proposed for discussion.
- Removal of all building envelopes from the inner riparian zone.

Overall, the proposal has not provided sufficient information to justify the proposed densities, bulk and scale and the amount of public open space proposed appears insufficient to support the proposed high-density development. Consequently, the Gateway has been conditioned to require the provision of further information to enable the impacts of the proposed development to be adequately assessed.

It is important to note that consideration of some of these aspects may have an impact on the overall achievable yield for the site and the proposed dwelling yield may need to be reduced following the finalisation of studies.

5.3 Airspace

The precinct is located approximately 5km west of Bankstown Airport (**Figure 8**) and future development is subject to the maximum permissible height constraints of the Bankstown Airport.

The site is not identified on the Airport Noise Map under the Liverpool LEP 2008 and the site is not situated within the Liverpool Helicopter Flight Path.



Figure 8: Subject site in relation to Bankstown Airport (source: Aeronautical Assessment)

An Aeronautical Assessment Report has been prepared by Strategic Airspace, April 2020 (**Attachment A7**), to consider aviation related airspace height constraints in relation to the proposed development.

The Report advises the current maximum permissible heights on the site have been determined by the Bankstown Airport height limitation layers and that there was nothing in the proposal that would preclude the rezoning of the site for a mixed-use development but noted the following:

- The taller buildings are at the maximum building heights permissible in relation to PANS-OPS and are therefore, technically approvable under the Airports Protection of Airspace Regulations (APAR).
- The proposal contains a number of buildings which would infringe the OLS conical surfaces and will require airspace height approvals under the Airports Protection of Airspace Regulations prior to construction.

A table showing the Bankstown Airport height limitation layers, maximum building heights and detailed comments can be found at **Attachment A8**.

5.3.1 Consideration of 9.1 Direction 5.3 Development near regulated airports and defence airfields

This Direction applies as the proposal is seeking to alter a zone relating to land near the regulated Bankstown Airport. The Direction states that in preparing a proposal that sets controls for development of land near a regulated airport, the planning authority is to:

- Prepare appropriate development standards that are compatible with the current and future operation of the airport, and
- Consult with the lessee/operator of that airport and take into consideration the operational airspace and any advice from the lessee/operator.

Department comment

The Aeronautical Assessment Report indicates the proposed development standards are compatible with the current operation of the airport, however, the proposal was not accompanied by any documentation indicating the lessee/operator of the airport has been consulted.

To ensure the proposal is consistent with the terms of this Direction the Gateway has been conditioned to require consultation with the lessee/operator of Bankstown Airport.

5.4 Environmental Impacts

The Moore Point Precinct is bound by the main channel of the Georges River to the west and north and Lake Moore to the east. The Georges River, Lake Moore and their riparian buffer land are identified as environmentally significant land on the Environmental Significant Land Map under the Liverpool LEP 2008.

Lake Moore is subject to coastal protections and is identified as a being local wetland. The weir located on the western side of the precinct forms a physical barrier between the tidal (brackish) water downstream and non-tidal, fresh water upstream.

The riparian corridor located on either side of the Georges River provides connectivity for highly mobile species such as birds and bats.

The site is identified as flood prone land, the precinct is partially inundated by mainstream flooding in 1% AEP event and the whole site is completely inundated in a Probable Maximum Flood (PMF) event.

There are no known erosion features on the Moore Point peninsula as the peninsula is subject to deposition rather than erosion, however, the steep banks of the opposing river shore demonstrate an erosional history.

There is little if any original vegetation in the precinct, however, existing vegetation on the site is representative of ecologically significant vegetation communities. Much of this is weed infested.

The eastern part of the site around Lake Moore is identified as being bushfire prone land.

The precinct is currently zoned light industrial, and the site has been identified as being used for industrial purposes since World War II. Consequently, a significant portion of the precinct area is identified as having medium to high risk of being contaminated to some extent and there are sites which not yet been assessed. The precinct is mapped as having Class 5 and Class 3 Acid Sulfate Soils.

These issues are discussed in detail below.

5.4.1 Biodiversity

The Georges River, Lake Moore and their riparian buffer land are identified as environmentally significant land on the Environmental Significant Land Map under the Liverpool LEP 2008.

The proposal is supported by a Biodiversity Assessment Report prepared by Ecological Australia in April 2020 (**Attachment A9**).

The report considers the impacts of the proposed development on the biodiversity values found within the 'development area' of the precinct (**Figure 9**). The report assumes the built form within the 'development area' will require significant earthworks which will require the removal of biodiversity values and assesses the potential impacts of the proposed development.

5.4.1.1 Land zoned RE1 Public Recreation

The Report does not consider the impacts of the proposed development on the RE1 Public Recreation zoned land, however, the Urban Design Report indicates the public domain around the river will comprise earthworks for terracing, swales and ponds for flood mitigation, hardstand footpaths, riverfront public leisure spaces such as swimming pools, public decks and pontoons extending over the river, pedestrian bridges, playgrounds, landscaping and lawn. The impacts of this development on the RE1 land have not been considered or addressed under the Biodiversity Assessment Report.

The land zoned RE1 Public Recreation is identified as Environmental Significant Land under the LLEP 2008 and is subject to coastal protections. To ensure the proposed development will not result in adverse impacts on this land, the Gateway has been conditioned to require the provision of an Open Space Assessment and Landscaping Plan to detail the development proposed on the RE1 Public Recreation zoned land. Upon receipt of the Open Space Assessment and Landscaping Plan the Biodiversity Report is to be updated to assess the impacts of the proposed development on the RE1 land. A study considering the impacts on the development on land identified as being subject to coastal management will also be required. This is addressed, further in this report.



Figure 9: Subject site showing 'Development Area' and open space (source: Biodiversity Assessment Report)

5.4.1.2 Consideration of vegetation and threatened species in the 'Development Area'.

Vegetation

The Biodiversity Assessment Report found the 'Development Area' has been subject to considerable vegetation disturbance, remnant vegetation has been historically cleared and the site comprises little if any original vegetation. The vegetation on the site is generally in poor condition with significant weed invasion and does not contain remnant native vegetation. The existing vegetation on the site is representative of ecologically significant vegetation communities Cumberland River-flat Forest and Cumberland Shale Plains Woodland. However, as the vegetation was generally in poor condition due to the presence of weeds, small patch sizes, absence of large trees and/or modified soil profiles it did not satisfy the Threatened Ecological Communities Justification listing criteria under the EPBC Act.

The Riparian Strategy indicates that where no vegetation exists in the riparian zones, it will be landscaped with a varying balance of open space native revegetation and urban landscape forms and that overall, the site will experience a significant improvement in environmental, ecosystem and biodiversity outcomes.

However, the riverfront land will be subject to earthworks for terracing, swales and ponds for flood mitigation, hardstand footpaths, riverfront public leisure spaces, pedestrian bridges, playgrounds, landscaping and lawn. Further the Riparian Strategy shows the majority of the riverbank area will be open space, with limited revegetation occurring. As a landscape strategy has not been provided

it is difficult to ascertain exactly what development is proposed on the environmentally sensitive riparian land along the riverfront and the proposal indicates the riverfront land along Lake Moore requires further work in consultation with the NSW Office of Water.

Threatened Species

The Report indicates the Grey-headed Flying-fox, listed as vulnerable under the EPBC Act, is likely to use some of the study area for seasonal foraging and has the potential to be affected by the proposed works and that the site contains potential habitat for some threatened species, and target surveys will be required for threatened microbats, Koalas, Green and Golden Bell Frogs and Southern Myotis. The report indicates that a Biodiversity Development Assessment Report (BDAR) will be prepared at the Development Application stage.

Overall, the Biodiversity Assessment Report indicates:

- The proposal seeks to remove approximately 1.26ha of existing vegetation from the 'Development Area'.
- All native vegetation removed will require offsets.
- Targeted surveys for threatened species will be required.
- Ecosystem credits and species credits will be required.
- Minor impacts are likely to occur within the area mapped as 'open space' (zoned RE1).

Environment and Heritage Biodiversity and Conservation

The Environment and Heritage Group's Biodiversity and Conservation team were asked to review the proposal and it provided the following comments:

- It is noted that the masterplan has not been finalised and a detailed landscaping plan has not yet been prepared and impacts within the open space have not been assessed.
- The retention of as much existing native vegetation as possible would greatly assist with addressing the impacts of the urban heat island effect.
- The submitted Biodiversity Assessment Report is not a BAR as identified by the BAM and does not adequately identify or assess all impacts associated with the proposal, as follows:
 - Insufficient information has been provided within the Draft BAR for a comprehensive assessment of all potential biodiversity impacts to be undertaken by EHG
 - The proposal should be accompanied by a revised ecological assessment supported by a Biodiversity Development Assessment Report prepared by a BAM accredited Assessor. This should inform the proposed zoning and potential development layout
 - Provision of a 40m buffer of RE1 land around Lake Moore and a reduction to the area in which the proposal applies
 - The site contains and is adjacent to groundwater dependent ecosystems (GDEs), the Georges River and coastal management areas identified in State Environmental Planning Policy (Resilience and Hazards) 2021 including the Lake Moore coastal wetland. As such, it contains hydrological processes that sustain and interact with GDE's, the Georges River, Lake Moore and other coastal management areas. EHG recommends the planning proposal addresses in a revised ecological assessment the likely hydrological (surface and groundwater) impacts associated with delivery of the Masterplan accompanying the proposed rezoning
- The review identified a number of inconsistencies with the report. The majority of these inconsistencies will require the Biodiversity Report to be updated. The main issues identified, are as follows:
 - Incorrect references to stream order, dual and full credit species, SEPPs Biodiversity Assessment method and species names

- Incorrectly identifying the Lake Moore wetland as not important
- Insufficient justification for exclusions of credits, insufficient consideration of ecological communities, insufficient targeted surveys or target surveys undertaken at incorrect times of the year.

Department comment

The biodiversity report provides insufficient information to assess the impacts of the development on native vegetation, threatened species, populations and ecological communities or to understand how the proposed development will avoid or minimise any potential impacts.

To ensure the proposed development seeks to protect biodiversity and enhance urban bushland and remnant vegetation the Gateway will be conditioned to require the following information be provided to the Department for review, prior to public exhibition:

- The preparation of an Open Space Needs Assessment.
- The Biodiversity Report is to be updated to:
 - Reflect all current legislation, guidelines and assessment criteria,
 - Identify which order stream the Georges River is and update the report accordingly,
 - Ensure all species references and credit species references are correct,
 - Identify the biodiversity values and consider the impact of the proposed development on the land identified to be zoned RE1 within the Precinct, including any indirect impacts to Haigh Park, The Georges River and Lake Moore, including consideration of the impacts of any development proposed within these areas such as upgrades to Haigh Park, the installation of pathways, lighting etc.
 - The removal of threatened ecological communities for 'landscaping works' is not supported, and is to be retained.
 - Review and address NSW Environment and Heritage Group (EHG) comments in regard to:
 - exclusions of ecosystems credits
 - undertake target surveys in the correct times of the year.
- The Planning Proposal, Landscape Plan, updated Biodiversity Assessment Report, and other supporting documents are to be provided to the agencies for consideration.
 - Office of Environment and Heritage Group
 - Office of Water
 - Natural Resource Access Regulator (NRAR)
 - Department of Primary Industries – Fisheries.

5.4.1.3 Aquatic Ecology and Key Fish Habitat

The Liverpool Local Planning Panel identified that the proposal did not address the aquatic ecology values of the Georges River and that given the large disturbance footprint and infrastructure required for the improvement of the riparian zone, flood mitigation and potentially infrastructure such as piers consideration should be given to the proposed development impacts on the aquatic ecology.

The Department of Primary Industries – Fishing webpage identified key fish habitats as estuarine habitats, intermittently closing and opening lakes and lagoons and permanently flowing rivers and creeks. As the site adjoins the Georges River and Lake Moore, waterbodies that fit these definitions, the proposed development has the potential to impact on key fish habitat.

Department comment

To ensure the proposal gives consideration to the aquatic ecology and does not adversely impact habitat, the Gateway has been conditioned to require, the following:

- The Biodiversity Report is to be updated to consider the proposed development on the aquatic ecology of the adjoining aquatic landscapes.
- Consultation with the Department of Primary Industries, Fisheries division.

5.4.1.4 Koala Habitat

Under SEPP (Biodiversity and Conservation) 2021, the site is identified as comprising Koala Habitat under Chapter 4 Koala habitat protection 2021.

The Biodiversity Assessment Report indicates there is a recent BioNet record from 2017 of a Koala within or adjacent to the study area. The Report states that although the vegetation on the site contains limited native vegetation and has been substantially modified, the vegetation is located adjacent to waterbodies and provides connectivity to patches of native vegetation and consequently, a target survey for Koalas may be required as part of the development assessment application.

Department comment

Under the Biodiversity and Conservation SEPP Council is required to assess whether the development is likely to have any impact on koalas or koala habitat before granting consent to a development application. Consequently, this is a matter for Council at the Development Application stage the Department is satisfied this will be adequately addressed at that time.

5.4.2 Riparian Land

Moore Point is situated where the confined river terminates before opening out into Lake Moore. The Georges River, Lake Moore and their riparian buffer land are identified as environmentally significant land on the Environmental Significant Land Map under the Liverpool LEP 2008. The total riparian corridor area for Moore Point and Lake Moore is 14.4ha.

To minimise harm done to waterfront land, the impact of any activity proposed must obtain a controlled activity approval from The Natural Resource Access Regulator (NRAR), the independent regulator of water activities. NRAR has prepared a set of guidelines 'Guidelines for controlled activities on waterfront land – Riparian corridors' (Guidelines) to define riparian corridors and they propose an average rule whereby encroachments into the riparian zone by development can be offset.

The Georges River and Lake Moore are considered a 4th order watercourse type and require a vegetated riparian zone (VRZ) of 40m from the highest bank of the river, lake or estuary.

The proposal seeks to redevelop the site to create a mixed-use precinct. Most of the land along the George's River, is proposed to be rezoned from IN2 Light Industrial to RE1 Public Recreation (open space), and much of the existing vegetation in the precinct will be retained. However, the proposed development does not fully confirm to the Guideline as the proposal seeks to activate the riverfront by creating a mix of hard landscape elements, parkland, and vegetated areas along the river's edge and the proposed development projects into and seeks to remove vegetation from the riparian corridor.

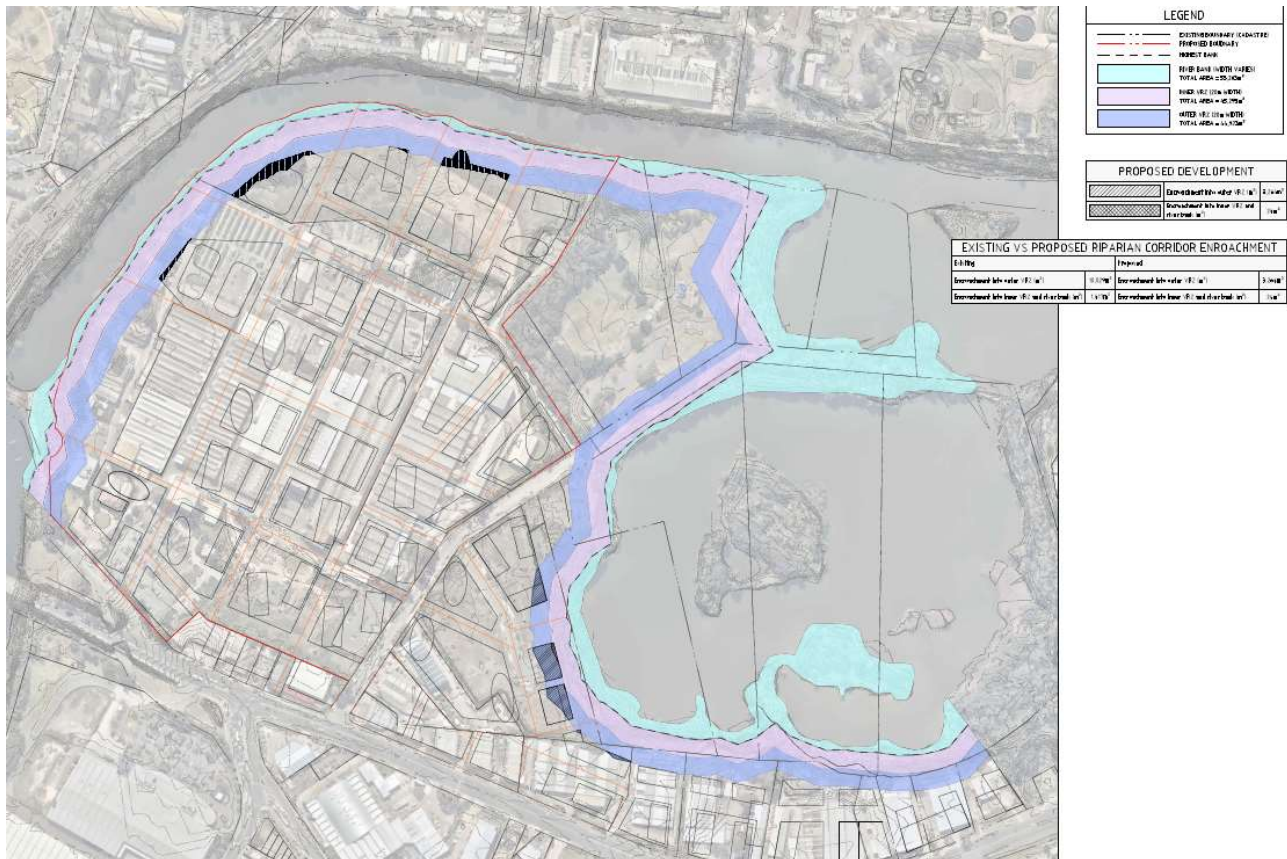


Figure 10: Impacts on vegetation riparian zones (source: Riparian Strategy)

The Guidelines allows development in the outer 50% of the VRZ, where certain criteria are met and generally on cleared waterfront land, as follows:

- The proposed development is suitable and causes minimal harm.
- The average width of the vegetated riparian zone can be achieved over the length of the watercourse within the development site.
- The inner 50% of the vegetated riparian zone must be fully protected and vegetated with native, endemic, riparian plant species.
- The proposed development better meets the needs of the community.
- An equivalent area of riparian corridor is offset within the development site, however, bridges, cycleways, paths, stormwater outlets and other essential services do not need to be offset. Offline detention basins do not need to be offset so long as there is an equivalent VRZ for the corresponding watercourse.

In its consideration of the proposal Council raised concerns that the residential development fronting onto Lake Moore in the area identified as the 'Lakefront Mixed Use' in the Urban Design Report significantly encroaches into the riparian zone, including into the inner riparian zone and while the construction of active transport links and landscaping may be considered under a merit based approach this does not extend to high-density building footprints extending significantly into the riparian zone and suggested the proposed masterplan should have a minimum 40m setback from the lot boundary along Lake Moore to ensure that there are not building encroachments within the riparian zone.

Both Council and the Department's Urban Design Team suggested the overshadowing impacts of the proposed towers along the riparian corridor on the native species and wetlands be considered addressed.

To support the rezoning a Riparian Strategy (**Attachment A10**) was prepared by Northrop, April 2020. The Riparian Strategy indicates the amount of vegetation retained or offset is significantly greater than the amount of vegetation proposed to be lost, refer to **Table 8 and 9**.

The proposal indicates a merit-based approval from NRAR is being sought for the proposed encroachments.

Table 8 Existing and proposed development encroachments into the riparian corridor

Vegetated Area Zones	Size (m ²)	Encroachment Existing into the VRZ (m ²)	Encroachment Proposed into the VRZ (m ²)
River Bank (part of the river channel)	53,263	1,417	24
Inner VRZ	45,295		
Outer VRZ	44,923	10,029	3,264
	Totals	11,446	3,288

Table 9 Offsetting of lost vegetation areas

1. Vegetated Area Zones	2. Area of existing vegetation lost within the riparian corridor (m ²)	3. Areas of vegetation retained within the riparian corridor (m ²)	4. Areas of vegetation offset, i.e. new plantings in riparian corridor and existing areas outside and adjacent to (m ²)
River Bank (part of the river channel) and Inner VRZ	6,975	65,931	10,544
Outer VRZ	776	4,920	27,790
Totals	7,751	70,851	38,334
		Total (column 3 & 4)	109,195

Some of the land proposed to be rezoned RE1 Public Recreation and identified as open space and offset land is situated on land not owned by the proponents and comprises existing development. Further detail is required to understand the proposed offsets and how these are proposed to be achieved and implemented.

To ensure the environmentally significant riparian land is adequately considered, the Gateway has been conditioned to require the following:

- Buildings or structures may be proposed in the riparian zone, provided they are consistent to the relevant guidelines for riparian zones.
- Provision of a Landscape Plan to provide greater detail into the proposed riverfront treatments and plantings.

- Consultation with the Department of Planning and Environment (DPE) – Water, and a copy of the controlled activity approval or in-principal endorsement from DPE – Water for a merit based controlled activity approval assessment for the proposed encroachment into the VRZ.
- Further detail on the proposed offsets and how these are proposed to be achieved and implemented.
- Overshadowing Diagrams are to be provided which identify overshadowing impacts from the proposed towers on the riparian land.
- The Biodiversity Report is to be updated to consider and address any overshadowing impacts from the proposed towers along the riparian corridor on the native species and wetlands:
 - Identify Lake Moore as an important wetland and consider the impacts of the proposal on this important wetland
 - Identify and address indirect impacts of the proposal on groundwater dependent ecosystems.

5.4.3 Foreshores and Waterways Area and Coastal Management

The site is bound by the main channel of the Georges River to the north and west and Lake Moore to the east. Moore Point is located at the point where the Georges River transitions from fresh water to estuarine. The weir on the western side of the precinct forms a physical barrier between the tidal (brackish) water downstream and non-tidal, fresh water upstream. There are both saline tidal and freshwater riparian ecosystems in close proximity to the site and the site is subject to coastal and river processes.

The Georges River is zoned W1 Natural Waterways and the land adjoining the river is identified as environmentally sensitive land under the Liverpool LEP 2008. The subject site is also identified as being subject to the State Environmental Planning Policies Biodiversity and Conservation 2021 - Chapter 11 and Georges River and Resilience and Hazards 2021 - Chapter 2 Coastal. The site is subject to the following Coastal Protections:

- Coastal Wetland.
- Coastal Wetland Proximity Area.
- Coastal Use Area.
- Coastal Environmental Area.

The Contamination Report identifies Lake Moore sediments are mapped Em – estuarine bottom sediments, below water level with subject to severe environmental risk if disturbed by activities such as dredging.

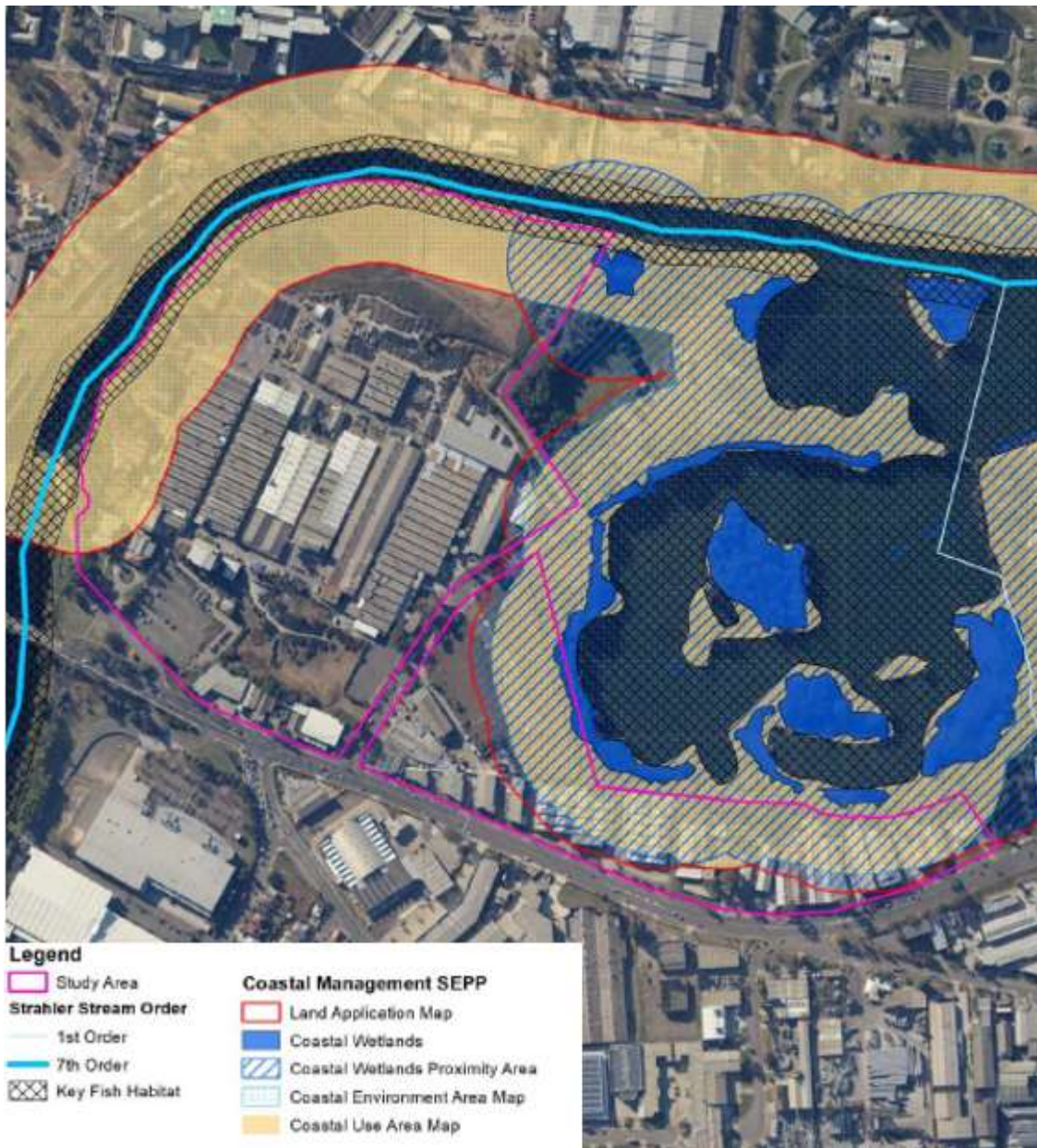


Figure 11: Coastal Protections (source: Biodiversity Assessment)

The Urban Design Study envisages a public domain around the river that will comprise earthworks for terracing, swales and ponds for flood mitigation, hardstand footpaths, riverfront public leisure spaces such as swimming pools, public decks and pontoons extending over the river, pedestrian bridges, playgrounds, landscaping and lawn.

The lake front edge around Lake Moore is identified to be 'a heavily used public open space, a combination of hardscaped spaces and soft landscape spaces'. The image shown in the Urban Design Study shows a significant portion of the lake edge would be hardstand, predominately concrete.

The proposal isn't supported by a study which considers the proposed developments impacts on the site's coastal protections. Coastal management has not been addressed under the Riparian Study or the Biodiversity Study and the proposal doesn't include a discussion on coastal management or how this will be managed.

5.4.3.1 Council comments

Council officers raised concern over the ‘urbanised’ treatment around Lake Moore, which is listed as a Coastal Wetland and advised the environmental qualities of the lake should have primacy and recommended a minimum 40m buffer of RE1 of open space be provided surrounding Lake Moore.

5.4.3.2 Consideration of 9.1 Direction 4.2 Coastal Management

The objective of this direction is to protect and manage coastal areas and applies as the proposal is on land identified as comprising coastal wetland, coastal wetland proximity area, coastal use area and coastal environmental area.

To be consistent with this direction a proposal must give effect and be consistent with the Coastal Management Act and relevant guidelines and manual and must not rezone land which would increase development or more intensive land uses on land subject to coastal management provisions. It may be inconsistent if justified by a study or strategy.

The proposal’s assessment of the proposed developments consistency with the 9.1 Direction 4.2 Coastal Management (formerly 9.1 Direction 2.2. Coastal Management) indicates that the land is earmarked for public recreation which will provide a better outcome than the current IN2 zoning. However, the public domain treatment envisaged in the Urban Design Study around Lake Moore may be inconsistent with the coastal management objectives to protect and improve the extent and condition of estuarine and riparian vegetation and anticipates this will be addressed as part of the future DA process.

The proposal has not provided sufficient information to understand what is being proposed in the coastal protection area as neither a detailed landscaping plan or an open space strategy has been provided and a study addressing the impacts of the proposed development on the coast protection areas has not been provided.

To ensure adequate consideration can be given to this direction, the Gateway has been conditioned to require the following:

- Provision of a study that identifies the land comprising coastal protections.
- The attributes and sensitivities of this land.
- Detailed understanding of the development proposed on this land.
- The impacts of the proposed development on this land.
- Recommendations about what level of development, if any, is suitable for this land.

5.4.4 Flooding

Moore Point is identified as being partially inundated by mainstream flooding from the Georges River. During significant floods there is potential for floodwaters to ‘spill’ from the Georges River leading to inundation of low-lying areas of the Precinct along the western and northern boundaries. During major events such as the 1% Annual Exceedance Probability (AEP) flood there is potential for floodwaters to flow through the precinct towards Lake Moore in the east. The site is fully inundated during a probable maximum flood (PMF) event. A PMF event would be a long event of up to 36 hours, with flooding occurring and receding reasonably slowly (over a number of days).

The proponent commissioned the following flood impact and flood evacuation studies:

- Flood Impact Assessment and Flood Evacuation Strategy, prepared by J. Wyndham Prince (April 2020) (**Attachment A11**).
- Flood Impact and Risk Assessment, prepared by Advisian (July 2022).
- Flood Emergency Response Strategy, prepared by Advisian (November 2022).

Council also commissioned the Georges River Evacuation Modelling Flood Evacuation Analysis, prepared by Molino Stewart (March 2022).

5.4.4.1 Flood hazard and behaviour

The proponent's Flood Impact and Risk Assessment by Advisian, July 2022 (**Attachment A11**) provides modelling for a range of flood scenarios, including the 5%, 1%, 0.2% AEP and the PMF events. The following modelling results are provided for pre-development and post-development conditions. The post development conditions include cut and fill and the provision of a flood levee south of Newbridge Road.

Table 10: Flood behaviour pre and post development

Annual Exceedance Probability	Pre-development	Post-development
5% (1 in 20 year)	Site remains flood free.	No change.
1% (1 in 100 year)	Most of the site is inundated to levels typically less than 0.5m.	Site remains almost entirely flood free.
0.2% (1 in 500 year)	Approximately 80% of the site is predicted to be inundated.	The site is inundated and flood waters flow through the precinct via the internal road network to typical depths of 0.3m to 1.2m.
PMF	Entire site is inundated.	Public spaces and roads would be inundated but residential areas will be above the PMF level.

Technical Advisory Group Comments

The Technical Advisory Group (TAG) noted that the proponent's Flood Impact and Risk Assessment did not provide a flood risk assessment for the 0.02% AEP (1 in 5000 year event), as recommended by NSW Flood Inquiry Recommendation 18. Given recent and changing rainfall patterns including the intensification of multi-day rainfall events, the Flood Inquiry found that using the 1% AEP for the calculation of the flood planning levels in NSW is not adequate.

The flood analysis also did not include hazard maps and hydraulic and hazard categories for all events modelled. The TAG noted a quarter of the site is subject to the highest hazard levels of H5-H6 (High Hazard). Recommendation 18 of the Flood Inquiry suggests the NSW Government should adopt a risk-based approach to calculating the flood planning level for planning purposes. A risk-based approach should be factored into all existing and new planning applications, particularly in high-risk catchments such as the Georges River. The TAG also notes the flood modelling does not account for changes in the behaviour of future floods associated with climate change, thus flood levels and hazards may underestimate risk.

Department comment

Further detail is required to understand the behaviour and risks of floodwater on the site. The Department supports a risk-based approach recommended by the Flood Inquiry. In addition to flood height, other flood properties that contribute to the magnitude or severity of flood should be considered, including rate of rise, volume and velocity, as these properties can cause greater risk to human life and damage to infrastructure.

To ensure adequate consideration can be given to flood hazard and behaviour, the Department supports the Advisory Panel's advice that the following Gateway conditions be imposed to require the following:

- Further modelling be undertaken to consider climate change impacts, be calibrated with the most recent flood events and include a range of flood scenarios, including modelling and providing hazard mapping for the 1 in 100, 1 in 5000 and PMF events, as recommended by Flood Inquiry Recommendation 18.

5.4.4.2 Flood evacuation

Flood Evacuation Analysis by Council

Evacuation has been identified as a major constraint to achieving further growth in the Liverpool LGA, thus the Georges River Evacuation Modelling Flood Evacuation Analysis was commissioned by Liverpool City Council and prepared by Molino Stewart (March 2022) (**Attachment A12**). This study sought to understand flood affectation and the evacuation capacity of the road network to accommodate future growth identified in planning proposals for land located along the Georges River, including Liverpool CBD, Chipping Norton, Warwick Farm and Moorebank. Moore Point is located within the study area.

The study was prepared in close consultation with the NSW State Emergency Service (SES) who identified the preferred primary flood emergency response for the Georges River floodplain is evacuation. It advised that shelter-in-place is not an appropriate primary flood emergency response for new developments as in extreme flood events most sites on the floodplain can be isolated by hazardous flood waters for up to 2 days. The SES have identified there would be 12 hours of warning time before either evacuation route is cut or premises are flooded and that the most effective means of evacuation is via a road, using private vehicles and public buses for those who do not have or unable to use their own vehicles.

The Analysis considered specific flood risks for certain areas including the Moore Point Precinct (Georges River North) using various scenarios. The Analysis found the following:

- That 92% of the Moore Point Precinct is below the residential flood planning level (1% AEP flood level plus 0.5m freeboard) and has areas identified as vulnerable development (future development must not exacerbate the existing flood problems) including along Newbridge Road and requires consideration of flood free site access.
- The proposal for Moore Point far exceed the capacity of the road network to cater for their evacuation during a flood. The proposals would result in nearly 32,000 vehicles having to evacuate and while the developments themselves would be constructed above the flood planning level, Newbridge Road does flood at the intersection within Heathcote Road in events as frequent as the 2% AEP flood making the bridge over the river inaccessible.
- Newbridge Road has two west bound lanes and even if exit roads from the developments could be configured to match this road capacity, it would take more than 26 hours for all of the vehicles to evacuate from the precinct without allowing for warning acceptance, warning lag and traffic safety factors. This compares to the 12 hours warning time which is available.
- Under Scenario B where road upgrades have been completed, the network may have capacity for 5,565 vehicles. However, approximately 26,000 vehicles would be subject to evacuation constraints.

The Study concluded that an active management framework will need to be prepared for the development to ensure that the delivery of upgraded infrastructure is tied to the delivery of housing.

Flood evacuation strategies by the proponent

The proponent's Flood Evacuation Strategy (April 2020) (**Attachment A13**) indicates that during the 1% AEP event the proposed flood mitigation measures (cut and fill and the provision of a flood levee) prevents the river from breaching its banks leaving the precinct unaffected from flooding up to the 1% AEP. However, during a PMF event the Moore Point precinct will be inundated and flood evacuation would be necessary to ensure the safety of residents that use/reside in the precinct.

The Strategy advises that in a PMF event there would be sufficient flood warning and evacuation time. During a PMF event, it will take approximately 8.5 hours before the floodwater reaches the flood planning level (1% AEP level plus 0.5m freeboard) and residents would need approximately 4 hours to evacuate. The Strategy proposes the following evacuation measures:

- All new roads are to be used for flood evacuation measures, with a constantly rising grade towards Newbridge Road or towards the major evacuation route within the Moore Point precinct.
- Ensure all the habitable floor levels within the Moore Point precinct have minimum floor levels, including garage floor levels are above the 1% AEP flood level plus freeboard and that vehicular access from the buildings to the local road is above these requirements.
- The proposed pedestrian footbridges connecting the development to the western side of the Georges could be used for early flood evacuation but would not be the primary flood evacuation route for the precinct.

The Proponent's Flood Emergency Response Strategy details the intention for future development to deliver a built form, internal road network and pedestrian routes that allow a phased approach to emergency response management during a flood event. The phased approach includes a combination of the following:

- Evacuation of residents via vehicles to places of refuge outside the PMF.
- Evacuation of a proportion of the residents who do not own a motor vehicle, by foot across one of three (3) pedestrian bridges that link the Site to the Liverpool CBD and Liverpool Railway Station.
- Shelter in place for those who choose not to leave and would prefer to remain at home until floodwaters recede.

The proponent provided the following comments to the Panel regarding Council's Flood Evacuation Analysis:

- Council's analysis assumes the precinct will be delivered in a short period, but the proposal anticipates staging over 30-40 years.
- Does not include any new transport infrastructure identified by the NSW Government.
- Models up to 32,000 vehicles evacuating Moore Point in the event of a flood, but the proposal only estimates 16,500 car spaces.
- Assumes a high vehicle ownership rate.
- Does not consider evacuation as a scalable activity (i.e., phased so that not all residents are evacuating at the same time).

Technical Advisory Group Comments

The TAG notes there is some contention around the assumptions and conclusions in the proponent and Council evacuation analysis. However, the TAG is of the view that the road network does not have the capacity to support the number of evacuating vehicles that would result from this development and raises concerns regarding the necessary network upgrades that would improve the capacity.

The TAG raised concerns about pedestrian evacuation via the pedestrian bridges as this mechanism relies on behavioural strategies that are not validated and may not consider challenges to pedestrians evacuating.

The TAG advised it does not support shelter-in-place as a mitigation measure due to the depth, velocity and duration of flooding in the Moore Point precinct. A shelter-in-place strategy is inconsistent with Recommendation 19 of the Flood Inquiry.

Advisory Panel advice

The Advisory Panel notes there appears to be agreement amongst the key stakeholders that there would not be sufficient capacity in the existing road network to evacuate all 16,500 proposed vehicles in a flood event using the existing road network.

The Advisory Panel agrees that the full capacity of the development will not be realised immediately. Over time, infrastructure improvements will occur that will improve road network capacity and reduce constraints. The Advisory Panel notes the planning proposal should include a staged delivery in alignment with the staging of infrastructure. A staging plan should be compiled in consultation with key agencies prior to proceeding to exhibition. The stages of this plan should be linked to dwelling and vehicles numbers and forecast infrastructure requirements such as road upgrades. A pedestrian bridge should also be delivered in the first stage of the precinct's development.

The Advisory Panel acknowledged the pedestrian evacuation option. However, the current planning proposal does not provide enough information to understand the relationship of the pedestrian bridges with the road network and future buildings. Further flood modelling should inform the access levels and relationships with the road network. Gateway conditions should be provided to ensure pedestrian bridges will meet certain conditions, including at least one bridge being capable of carrying an emergency vehicle.

In regard to the shelter-in-place strategy put forward by the proponent, the Advisory Panel referred to the Department's draft Shelter-in-place Guideline that was publicly exhibited in January and February 2023. The draft Guideline advises shelter-in-place as an appropriate emergency management response when the flood warning time and flood duration are both less than six hours. The Panel notes that TAG does not support shelter-in-place and an extreme flood event for Moore Point would isolate this site from road access for more than 6 hours. However, as a risk mitigation measure, further analysis is warranted.

Department comments

The Department supports the Advisory Panel's advice that the following Gateway conditions be imposed:

- Further consideration of a staged delivery of the development be undertaken, in alignment with infrastructure upgrades that would improve capacity.
- Further details provided on the proposed pedestrian bridges to ensure that all bridges would be located at a level that has been established in consideration of the 1 in 100, 1 in 5000 and PMF events (consistent with Flood Inquiry recommendation 18) and designed with a width that allows emergency vehicle access to the development.
- Future residential building towers be provided with back-up infrastructure above the PMF to ensure essential services are available for the duration of any flood events, and are also provided with communal and gathering areas within buildings above major flood levels.

5.4.4.3 Flood risk mitigation measures

The proponent's Flood Impact and Risk Assessment (July 2022) prepared by Advisian (**Attachment A11**) advises the proposal will involve cut and fill and the provision of a flood levee downstream of the Liverpool Weir to the south of Newbridge Road to increase available floodplain storage and mitigate flood impacts. Proposed earthworks are as follows:

- Fill ranging from 0.5m up to 2.6m is proposed across the site to create a landform above the flood planning level.
- Compensatory flood storage is proposed along the eastern foreshore of the Georges River with cuts ranging between 2 – 3m, with a maximum depth of 4.6m proposed along the foreshore near the north-eastern corner of the precinct.

- The 900mm flood levee seeks to reduce the frequency and severity of the flooding that reaches the precinct. The levee will also protect numerous industrial, commercial and residential properties upstream of Newbridge Road from the impact that the development of this precinct is creating.
- The risk assessment has evaluated and quantified any flood impacts arising as a result of the proposed development for the 5%, 2% and 1% AEP events and for an extreme event understood as the PMF level and includes consideration of the proposed built form and its impacts on flood affectation.

The flood modelling for post development conditions shows the following:

- The proposed development will utilise fill to raise all areas to above the flood planning level and will ensure all building pads are above the 0.2% AEP flood level. The site will remain almost entirely flood free during events up to and including the 1% AEP and the levee proposed upstream will lead to a significant reduction in the flood extent across properties upstream of Newbridge Road.
- The proposed development is predicted to decrease flood levels in some locations or remain unchanged. Where there are predicted increases, these have been determined to be either negligible or within acceptable tolerances. The development is predicted to cause some increases in peak 1% AEP flood level within the precinct east of the weir, the increase is localised, within the boundaries of the precinct and flood impact can be mitigated by design landform.
- Floodwaters are predicted to inundate parts of the developed site at the peak of the 0.2% AEP event. Flooding will be limited to shallow depths of inundation along the west to east aligned roads to typical depths of 0.3m and a maximum of 1.2m.
- The proposed levee will provide added flood protection to commercial and residential properties located along Moorebank Avenue, Heathcote Road and Newbridge Road.

The report concludes that the proposal conforms with all the relevant flood criteria and for some off-site areas, will provide a better flood affectation outcome than under existing conditions. The development is compatible with flood risk at the site and is designed to ensure negligible adverse flood impacts up to and including the 1% AEP event. It has also been shown to have minimal impact on flood characteristics in rarer events up to the 0.2% AEP flood.

Technical Advisory Group Comments

The TAG advised it does not support the proposed flood levee for flood mitigate and raises concerns that the proposed levee is inconsistent with Flood Inquiry Recommendation 20, which favours principles be adopted for floodplain management that let “watercourses largely flow naturally rather than implementing engineering barriers such as flood levees”. The TAG also raised concerns with ownership and ongoing maintenance of a levee.

The TAG noted the levee may result in cumulative impacts to areas upstream of the site, particularly for the 0.2% AEP event and recommended cumulative impacts be considered for a wider range of flood levels.

Advisory Panel advice

The Advisory Panel notes there is general agreement amongst stakeholders that the proposed flood levee would protect the site from flood events up to the 0.2% AEP event. The Panel supports the levee approach in principle but understands the details of the approach are still under consideration. Therefore, Gateway conditions should require further details of the levee to be resolved to Council’s and the Department’s satisfaction.

The Advisory Panel also noted the fill strategy may not address the evacuation constraints and have the potential to cause localised changes to flood characteristics. There are also concerns regarding any future approval of cut and fill in the riparian zone for on-site flood storage. The Panel

suggests Gateway conditions are imposed to determine the appropriate level of fill for the site and resolve road levels to provide an internal road network above the 1% AEP level.

Department comments

The Department is concerned about the likelihood of approval being granted for the proposed cut and fill within the riparian corridor due to impacts on the natural environment. Gaining permission from both Council and private landowners makes it unclear who may be responsible for the ongoing maintenance and safety issues with the flood levee.

The Department also notes the proposed use of above ground parking and requests the proponent seeks to reduce negative urban design impacts, reduced street level activation and loss of passive surveillance, through careful urban design.

The Department supports the Advisory Panel's advice that the following Gateway conditions be imposed:

- Fill strategy, including fill to elevate the building pads to above the 1% AEP level plus 0.5 m freeboard and to provide internal roads at a minimum 1% AEP level with rising egress to the evacuation routes, must be resolved to Council's and the Department's satisfaction.
- Details of the proposed levee to be resolved to Council's and the Department's satisfaction.
- Further details in relation to parking, including confirmation that parking construction is flood-proof, will accommodate potential flood and debris loading to avoid structural failure, and will be constructed in a way that will not compromise public amenity.

5.4.4.4 Consideration of 9.1 Direction 4.1 Flooding

This direction applies as the proposal seeks to alter zones and provisions that affect flood prone land. Under this Direction, the proposal must be consistent with and give effect to the principles of the NSW Flood Prone land Policy, the principles of the Floodplain Development Manual 2005, and the Considering flooding in land use planning guideline 2021 or may be inconsistent where the planning proposal authority can satisfy the Planning Secretary that the proposal is supported by a flood and risk impact assessment accepted by the relevant planning authority and is prepared with the principles of the Floodplain Development Manual 2005 and with the relevant planning authorities requirements.

The proposal's assessment of the proposed consistency with the 9.1 Direction 4.1 Flooding (formerly 4.3 Flood prone land) indicates the site is identified as being partially inundated by mainstream flooding from the Georges River. During significant floods there is potential for floodwaters to 'spill' from the Georges River leading to inundation of low-lying areas of the Moore Point precinct along the western and northern boundaries. During major events such as the 1% AEP flood there is potential for floodwaters to flow through the precinct towards Lake Moore in the east. The site is fully inundated during a PMF event.

The Department's assessment of flooding has found that insufficient information has been provided to understand flood hazard and behaviour, the extent of upstream impacts of proposed earthworks (including cut and fill and flood levee) and relationships between the street network, proposed pedestrian footbridges and future buildings on the site to ensure the safety and evacuation of residents and visitors.

To ensure adequate consideration can be given to this Direction, the Gateway has been conditioned to require further information on the following:

- Modelling for the 1 in 100, 1 in 5000 and PMF events, with a consideration of climate change.
- Details on the proposed pedestrian bridges, early evacuation warning system, future residential building construction and parking.

- Details for the internal road network at a minimum 1% AEP level with rising egress for evacuation routes.
- Details of the proposed cut and fill strategy and flood levee.

5.4.5 Contamination

Historically the subject site has been cleared and the landscape has been raised with fill material (between 2m, 4m and up to 7.5m in thickness) and flattened as part of historical clearing and development. The site is currently zoned IN2 Light Industrial and is historically and currently associated with potentially contaminating industrial uses, such as, farming with potential chemical spraying of herbicides and pesticides, manufacturing of plastic, electrical cable and metal products, the production of polyurethane foam products and mechanical and smash repair businesses.

5.4.5.1 Consideration of 9.1 Direction 4.4 Remediation of Contaminated Land

The objective of this direction is to reduce the risk of harm to human health and the environment by ensuring that contamination and remediation is considered by planning proposal authorities.

This direction applies as the subject site is being or has been used for development identified under the Contaminated Land Planning Guidelines. To ensure consistency with this direction the Planning Proposal Authority must consider whether the land is contaminated and if contaminated, be satisfied that the land is suitable, or will be suitable after remediation, for the proposed land uses and provide a report specifying the findings of a preliminary investigation.

The planning proposal is supported by a Part 1 Contamination, Acid Sulfate Soils and Remedial Strategy, prepared by EIAustralia, in April 2020 (**Attachment A14**) which considers these issues across the landholdings owned by Leamac and Coronation. The Strategy identifies contaminating activities, areas of site contamination and remedial options for the land subject to the planning proposal. The Strategy also identifies data gaps across the whole precinct and recommends further investigation is required for some land. The Strategy did not identify any contaminant levels that would not be able to be remediated.

Council's Environment and Health department advised that the Strategy does not fulfil all requirements of a Stage 1 Preliminary Site Investigation as outlined in the relevant guidelines.

The contamination status of the independent land holdings located within the precinct remains unknown and it is difficult to determine if the past and present uses of these allotments may be contaminated and if is so if the adjoining landholdings would be subject to contamination.

The Strategy recommended further investigation work include:

- The provision of Stage 1 & Stage 2 Environmental Site Assessments for the areas not yet investigated.
- Hazardous materials survey for certain structures.

Consequently, the information provided in relation to contamination is unsatisfactory. The Part 1 Contamination, Acid Sulfate Soils and Remedial Strategy does not meet the requirements of the 9.1 Direction Remediation of Contaminated land as the Strategy does not assess all the land within the precinct for contamination and the Strategy does not fulfil the requirements of a Stage 1 Preliminary Site Investigation as outlined in the relevant guidelines.

To ensure the site is suitable the proposed residential, recreational and education land uses and to ensure compliance with the 9.1 Direction, the Gateway has been conditioned to require:

- All land within the precinct is adequately investigated for contamination, as set out in the 9.1 Direction 4.4 Remediation of Contaminated Land.
- The findings of the investigation must fulfil the requirements of a Stage 1 Preliminary Site Investigation as outlined in the Contaminated Land Planning Guidelines.

- The recommendations in the Part 1 Contamination, Acid Sulfate Soils and Remedial Strategy are undertaken, including the provision of Stage 1 and Stage 2 Environmental Site Assessments and Hazardous Materials Surveys.

5.4.6 Acid Sulfate Soils

The proposal is supported by a Contamination, Acid Sulfate Soils & Remedial Strategy and Preliminary Acid Sulfate Management Plan prepared by EI Australia (9 April 2020).

To ensure acid sulfate soils has been adequately addressed the proposal is required to demonstrate consistency with the 9.1 Direction 4.5 Acid Sulfate Soils which seeks to avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulfate soils.

The site is identified as having Class 5 and Class 3 acid sulfate soil classes under the LLEP 2008. The majority of the site comprises acid sulfate soils class 5, which has a low probability of the occurrence of acid sulfate soils. A portion of the site in the south eastern corner is identified as containing Acid Sulfate Soils class 3, which poses a severe environmental risk if acid sulfate soil materials are disturbed by activities such as shallow drainage, excavation or clearing.

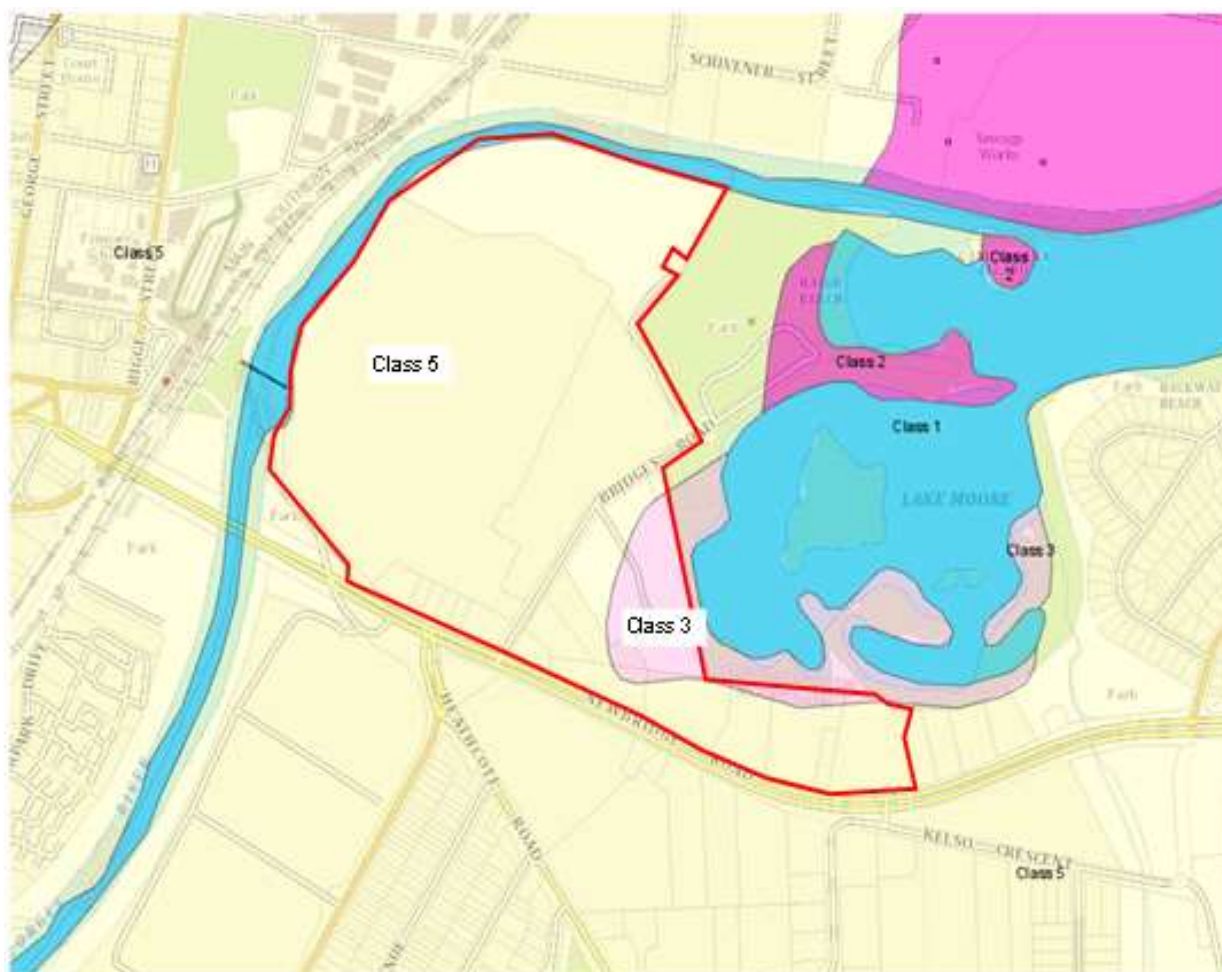


Figure 12. Acid sulfate soils within the Moore Point precinct.

A preliminary Acid Sulfate Soil Management Plan was prepared to identify options to manage scenarios where disturbance of potential and actual acid sulfate soils is unavoidable. Intrusive investigation is needed to establish the extent of any acid sulfate soils within the precinct and any such investigation should result in a more specific Acid Sulfate Soil Management Plan.

With reference to clause 7.7 (6) of the LLEP 2008, it is assumed more than 1 tonne of soil and/or lowering of the water table for the construction of footings and basements. Such works would therefore trigger the need for development consent and an Acid Sulfate Soil Management Plan that identifies the occurrence of actual acid sulfate soils and appropriate remediation options.

The studies did not identify any evidence to preclude the planning proposal from proceeding to facilitate residential/mixed use development.

Department comment

The information provided satisfactorily addresses the objectives of the 9.1 Direction 4.5 Acid Sulfate Soils in that it provides a preliminary assessment of the probability of the site containing acid sulfate soils. The recommendation from the preliminary Acid Sulfate Soil Management Plan regarding further investigation into the extent of any acid sulfate soils within the precinct and the preparation of a more specific Acid Sulfate Soil Management Plan at the development application stage is supported. This will be triggered by the requirements of the LLEP 2008 and State Environmental Planning Policy (Biodiversity and Conservation) 2021.

5.4.7 Odour

Todoroski Air Sciences prepared an Air Quality Assessment, April 2020, to consider air emissions from surrounding industrial operations, the Sydney Water sewerage treatment plant located to 400m north east of the precinct and emissions from road traffic in the general area surrounding the precinct.

The Assessment only assesses the land owned by Leamac and Coronation. The remaining lots within the precinct have not been assessed for odour impacts.

The Assessment found the risk of impacts arising from air pollution at the site was low, as follows:

- The key source of air quality impact at the site would be from the existing water treatment facility, located 400m north east of the site. The site is generally not downwind of the plant for the majority of the time.
- While the 24-hour exceedances of particulate criteria are common, annual PM_{2.5} levels in the vicinity of the site are generally higher than many areas and generally exceed the relevant criteria. The proposal seeks to remove industrial activities and replace them with commercial and residential activities which are likely to lead to a net reduction in particulate levels as industrial activities are removed from the area.
- There are numerous existing air quality sensitive land uses in the locality including residences, schools and health facilities in the area.
- The proposed residential dwellings nearest the appear to have good setback from existing roads in terms of plan and height.
- A detailed assessment of air emissions in the vicinity of the site will be required at the DA stage as part of the normal DA approval process.
- Nothing in the assessment would preclude rezoning of the site.

Sydney Water - Liverpool Water Recycling Plant - Odour Model Description

In July 2019 Sydney Water prepared the Liverpool Water Recycling Plant – Odour Model Description which modelled the odour dispersion zone for the Liverpool Water Recycling Plant (WRP) to assist in understanding major and minor odour sources generated from the plant.

The report found Liverpool WRP is a medium to high odour risk plant. Odour impact is most related to wet weather events and the prevailing winds are from the west-southwest (autumn, winter and spring) or east-northeast (summer). Odour generation also relates to the storage of primary

effluent in the Oxidation Pond. The report identified the 2 odour unit (OU) contour extends beyond the site boundary and into sensitive areas to the north and south of the site.

Department comment

The Sydney Water Report confirms the site is generally not downwind of the plant for the majority of the time, and indicates the site is not impacted by the 5 OU but shows the 2 OU extends into the Moore Point Precinct, refer to **Figure 13**.

The Sydney Water Report and Air Quality Assessment indicate that the risks from air pollution are low and odour is considered to have been satisfactorily addressed for the purposes of issuing a Gateway determination. However, it is noted that further work is likely to be required at the Development Assessment stage.

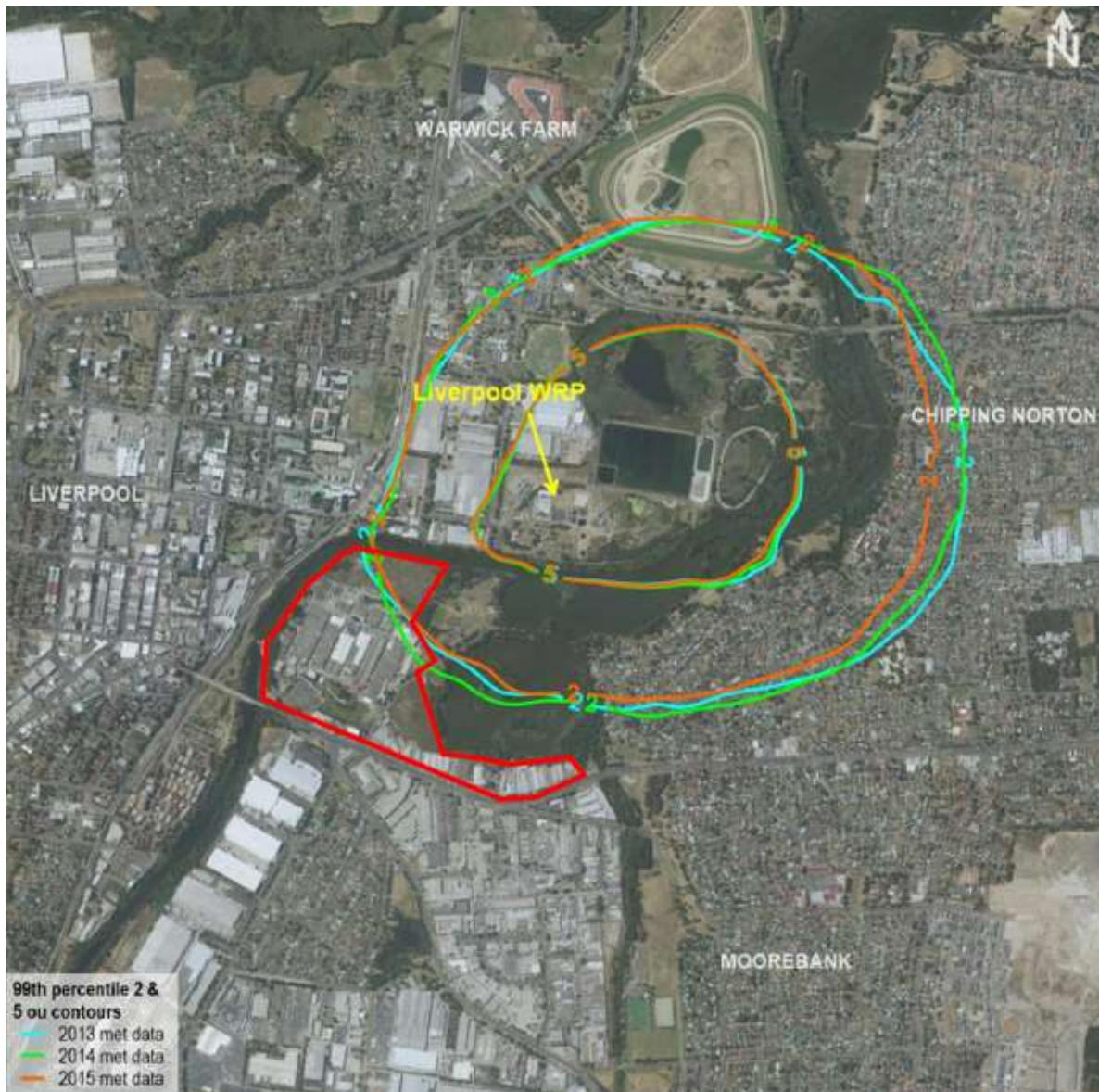


Figure 13. Predicted odour levels at the 99th percentile – Liverpool WRP (source: Sydney Water, Liverpool Recycling Plant, Odour Model Description)

5.4.8 Acoustic

The site is adjoined by a heavy rail corridor to the west and Newbridge Road, a six-lane road, to the south.

The proposal is seeking to rezone the site from IN2 Light Industrial to part RE1 Public Recreation, B4 Mixed Use and B6 Enterprise Corridor and land proposed to be rezoned B6 Enterprise Corridor and will adjoin Newbridge Road, a classified road. Land proposed to be zoned B4 will also be in proximity to the railway line. This land will be separated by the Georges River and the 40m riparian buffer.

Clause 7.22 Development in Zone B6 under the Liverpool LEP 2008 prohibits development for the purposes of a dwelling, unless the dwelling is at least 50m from the boundary of the land that adjoins a classified road, however, under clause 7.22(4) a dwelling may be at least 8 metres from the boundary of land that adjoins the Hume Highway or Elizabeth Drive, identified on the key sites.

The proposal seeks to introduce Newbridge Road to clause 7.22(4) which would permit development within 8m of the sites boundary with Newbridge Road. However, inadequate information has been provided to sufficiently consider the impacts of noise and vibration generated by the road and rail corridors on the proposed development.

Council comment

Council noted that an acoustic study would be required post Gateway to address SEPP (Transport and Infrastructure) 2021 and relevant guidelines including NSW Government's Environment Climate and Water NSW Road Noise Policy.

Department comment

To ensure the impacts of noise and vibration from the adjoining railway corridor and classified road have been adequately considered and addressed the Gateway has been conditioned to require the provision of an acoustic report prepared by a suitably qualified acoustic consultant. This report should address the relevant guidelines and policies.

5.4.9 Bushfire

Based on LLEP 2008 part of the site, largely east of Bridges Road, is identified as containing Bushfire Risk land in Category 1 and Buffer zones. Insufficient information has been provided to complete a throughout assessment of the impact of bushfire on the future development. A condition has been applied to the Gateway asking for further information for this to be addressed.

5.4.10 Heritage

The Planning Proposal is supported by a Historical Heritage Assessment (**Attachment A15**) and an Aboriginal Heritage Assessment (**Attachment A16**), prepared by Eco Logical Australia, April 2020.

To ensure heritage has been adequately addressed the proposal is required to demonstrate consistency with 9.1 Direction 3.2 Heritage Conservation which seeks to ensure the proposal contains provisions that facilitate the conservation of items, areas, objects and places environmental heritage significance and indigenous heritage significance.

It is also noted that the recently exhibited Heritage Bill is seeking to introduce new objectives and definitions to recognise and celebrate Aboriginal cultural heritage and intangible heritage.

5.4.10.1 European Heritage

The subject site comprises one locally listed heritage item under the Liverpool LEP 2008, and adjoins several items of state and local significance, as identified in **Table 11** and **Figure 14**.

Table 11: Heritage items located within and adjacent to the Moore Point Precinct

Significance	Item Number	Item name	Address and Property Description
Heritage items located within the precinct			
Local Item	76	Former MM Cables Factory and Cable Makers Australia Factory Pty Ltd Group, including inter-war administration building, factory and interiors'	3 Bridges Road Lots 200 DP1009044
Heritage items adjoining the precinct			
State	87	Liverpool Weir	Georges River (near Haigh Avenue) Near Lot 700 DP 1073063
State	72	Liverpool Railway Station Group, including station building, goods shed and jib crane	Bigge Street Lot 1 DP 1053994
State	80	Liverpool College (TAFE) site, including Blocks A–G, chimneystack, fences, gatehouses and archaeological features (formerly Liverpool Hospital and Benevolent Asylum)	College Street Lot 1 DP 863491
Local	86	Pylons (former Liverpool railway bridge)	Georges River (near Haigh Avenue) Near Lot 700 DP 1073063
Local	70	Light Horse Park	Atkinson Street Lot 3, 7, 11, and 15 DP 1129945
Local	C01	Bigge Park Conservation Area	Area bounded by and including College, Goulburn, Railway, Scott and Bigge Streets as shown hatched red. Lot 1 DP 234608 Lot 2 DP 579808

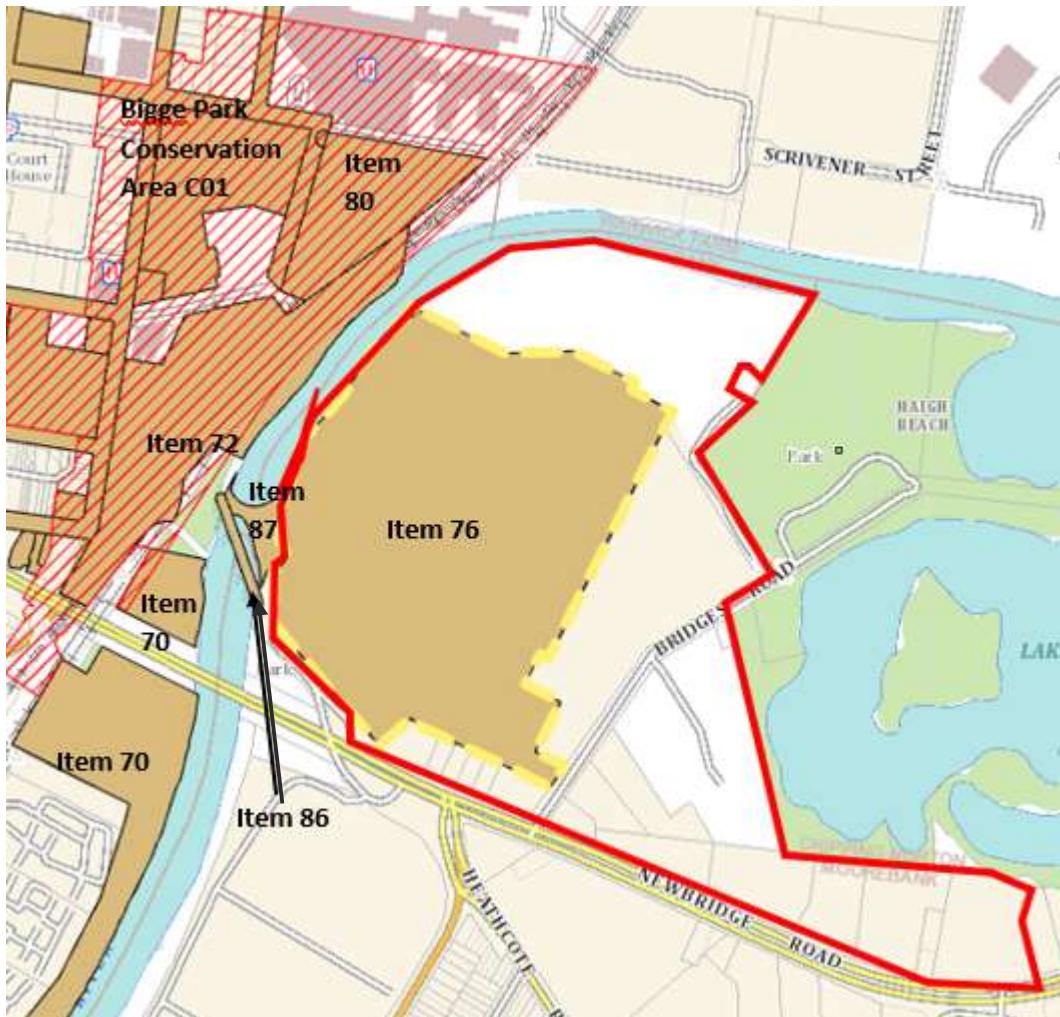


Figure 14: Heritage items and conservation areas within and adjacent to the Moore Point Precinct.

The Heritage Assessment submitted with the proposal addresses the potential impacts the proposed development will have on the locally listed item located within the precinct, the 'Former MM Cables Factory and Cable Makers Australia Factory Pty Ltd Group, including inter-war administration building, factory and interiors' (now known as Prysmian). The impacts of the proposed development on the adjoining items are unknown.

The Prysmian (Pirelli) Cable Factory is a large industrial estate which comprises areas graded from intrusive to exceptional heritage significance as shown in **Figure 15**. The report proposes the following:

- All site features identified as being intrusive or of heritage little significance would require the demolition.
- Areas identified as being of moderate heritage significance may be able to have their demolition justified in the context of the overall development of the site and the necessity for certain elements of the precinct to be developed within the areas these items occupy.
- The buildings identified as having high heritage significance are to be retained.

The items possessing high significance within the Prysmian site are as follows:

- Two saw tooth factory buildings, known as Factory 1, and Factory 2.
 - These were originally constructed in the 1940s, have not been subject to significant modifications and retain their original fabric
 - The buildings have been subject to numerous additions which have partially impacted upon their heritage significance

- These factories are still in use
- Sections of existing Factory 1 are proposed to be readapted into a retail marketplace
- The façade of Factory 2 is proposed to be retained.
- The front façade of the original Administration building:
 - The Administration building is vacant due to water damage and lack of maintenance
 - The rear section of the building is a more recent addition
 - The Administration building is also proposed to be retained and adapted for re-use.

Advice from the Heritage Council of NSW stated that neither the Administration building, or the Factories are of State Significance but are likely to be significant at a local level and encouraged the adaptive reuse and incorporation of the buildings within the new development.



Figure 15. Heritage significance grading of buildings on the Prysmian Factory site (source: Historical Heritage Assessment).



Figure 16. Extract from the illustrative masterplan (Source: Urban Design Study, SJB Oct 2020)

Department comment

In considering the proposed development and its potential impacts, the following concerns have been identified:

- There are inconsistencies between the Urban Design Study and the proposed adaptive reuse outlined in the Historical Heritage Assessment. The illustrative masterplan from the Urban Design Study indicates that one of the two Factory buildings will be fully retained (**Figure 16**), however it appears only the facade of the second building is identified as being retained, which is inconsistent with the report's findings that both these buildings are to be retained. This should be addressed in detail in any future heritage assessments.
- It is unclear if the proposed green spine running east/west through the precinct will run from the Lake Moore to the River or if the green spine will run from Lake Moore to the Factory Buildings. If the green spine is to extend through to the river, the Heritage Assessment will need to be updated to discuss the removal of part of the Factory Buildings to accommodate the green spine and any potential impacts this would have on the heritage significance of the saw tooth factory buildings.
- The Heritage Assessment advised the heavily vegetated banks of the Georges River prevent views to or from the site and that the heritage item is not visible at all without actually entering the factory grounds. However, the Urban Design Report shows that the

riverfront treatment will significantly change to be green open space and will include structures that extend out over the water, which may open up view lines.

- The Heritage Assessment has not considered the impacts of the proposed development, including building heights, overshadowing, and views and vistas on the adjoining heritage items.
- The Heritage Assessment does not consider the impacts of the proposed pedestrian bridges to State heritage item Liverpool Train Station and to the Bigge Park Conservation Area.

Consequently, the proposal and the accompanying Heritage Assessment provide insufficient detail to adequately assess the impacts of proposed developments on the buildings of high heritage significance located within the precinct or on the adjoining State and Local heritage items. To ensure the proposal can demonstrate compliance with the 9.1 Direction 3.2 Heritage Conservation, the Gateway has been conditioned to require the heritage report be updated to address the following:

- A thorough assessment of the items of high and moderate heritage values within the site.
- Sufficient justification to warrant the removal of items of moderate or high heritage values.
- A thorough assessment of the impacts of the proposed development on the adjoining heritage items, including consideration of the proposed bulk and scale, views and vistas, and overshadowing.
- If part of Factory 1 & Factory 2 are proposed to be removed to accommodate the green link, a detailed heritage report on the factories is to be provided. The report must address:
 - The heritage attributes of the factories
 - The impacts removing part of the building/s for the green link will have on the heritage fabric of the two buildings/site
 - Whether the retention the façade of one of the factories (as show in the masterplan) is suitable
- A detailed assessment of the impacts of the proposed pedestrian bridges on State Heritage Listed Liverpool Station and the heritage conservation area.

5.4.10.2 Aboriginal Heritage

An Aboriginal Heritage Due Diligence Assessment was prepared (**Attachment A16**) to identify if the presence of Aboriginal sites is likely to be located within the area of the proposed works, and is so, whether the proposed works will have the potential to harm those objects.

The Report noted almost all areas of the site have been significantly disturbed by past land use and identified one registered Aboriginal heritage site within one km of the study area, located on the opposite side of the Georges River. No registered AHIMS sites are located within the study area. The report has also reviewed past Aboriginal archaeological studies within and nearby the study area, which have demonstrated the Georges River as an area of high archaeological potential and a focal point of Aboriginal activity in Western Sydney in the past.

Consequently, a site survey was undertaken to assess the archaeological potential of the site and to identify Aboriginal objects, if present. Overall, the study found the site has been heavily disturbed by farming, placement of underground infrastructure and the provision of fill to create flat land to enable the construction of factories and roadways. The survey found the riparian corridor in the north western part of the site has moderate archaeological potential due to its proximity of the Georges River and lack of development. It is noted that development is not proposed in this area as it will be used for a planned riparian corridor.

Aboriginal Cultural Heritage

The Liverpool Local Planning Panel identified that Aboriginal heritage considerations appear to be limited to Aboriginal objects and that it is unclear whether the Gandangara Local Aboriginal Land Council (LALC) has been approached in relation to this proposal to consider Aboriginal

cultural values. Engagement with the LALC and the local Aboriginal community is identified as being pertinent at this stage of the planning proposal.

Heritage NSW

To assist in the assessment of the proposal, the proposal and accompanying heritage studies were provided to the Heritage NSW for comments. In relation to Aboriginal heritage, Heritage NSW provided the following comments:

- The presence of recorded site 45-5-2540 at the Liverpool Weir (immediately adjacent to the planning proposal area) indicates the potential for stone artefacts to be present along the Georges River.
- The area of moderate archaeological potential identified by EcoLogical should be mapped in relation to the proposed development areas. We note that this is a predicted area of potential only. Archaeological test excavation would be needed to determine the nature and extent of any archaeological deposits.
- A Due Diligence Assessment is not considered sufficient assessment to inform a Planning Proposal:
 - The Department that Heritage NSW does not consider an assessment under the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (2010) to be an archaeological assessment or an appropriate substitute for a comprehensive Aboriginal Cultural Heritage Assessment Report (ACHAR)
 - The due diligence process does not adequately assess the impacts of this planning proposal on Aboriginal cultural heritage as required by Local Planning Direction 3.2 – Heritage Conservation, particularly because without Aboriginal community consultation the extent of the impacts on Aboriginal heritage values through the planning proposal and future development are unknown.
- An Aboriginal Cultural Heritage Assessment Report should inform the Planning Proposal:
 - The preparation of a comprehensive ACHAR, that includes Aboriginal community consultation, is recommended to inform this planning proposal. Early assessment provides the best opportunity to identify and protect Aboriginal cultural heritage values. It also provides certainty to all parties about any future Aboriginal cultural heritage management requirements
 - The ACHAR should be prepared in accordance with Heritage NSW guidelines, which are available on the Heritage NSW website: heritage.nsw.gov.au/applications/aboriginal-objects-and-places/before-you-apply/
- General comments on Aboriginal Heritage:
 - We note that the Local Planning Panel recommended engagement with Gandangara Local Aboriginal Land Council. This is supported.

Department comment

The Due Diligence Assessment provided does adequately assess the impacts of the proposal on Aboriginal Cultural Heritage or assess the site as an Aboriginal area, place or landscape of cultural heritage and no engagement with Aboriginal Stakeholders appears to have been undertaken. Consequently, the proposal and the accompanying Aboriginal Heritage Report provide do not satisfy the 9.1 Direction 3.2 Heritage Conservation.

To ensure the proposal adequately addresses Aboriginal cultural heritage and satisfies the objective of the 9.1 Direction 3.2 Heritage conservation, the Gateway has been conditioned to require the following:

- Consultation with relevant Aboriginal stakeholders.
- An Aboriginal Cultural Heritage Assessment is to be prepared, in accordance with Heritage NSW guidelines and must include Aboriginal community consultation.
- The area of moderate archaeological potential identified by EcoLogical should be mapped in relation to the proposed development areas.

- Section 1.1 of both the Heritage Assessment and the Aboriginal Heritage Report refers to 'this Biodiversity Report'. This should be updated to reflect the respective report i.e. Heritage Assessment or Aboriginal Heritage Report for accuracy and to avoid confusion.

5.5 Social and economic

5.5.1 Economic Impact Assessment

The proposal seeks to accommodate 23,000 additional jobs, and states that the purpose of developing the Moore Point Precinct is to accommodate job opportunities that are complementary to and not in competition with Liverpool CBD. However, it is unclear how the proposal will deliver 23,000 jobs and further clarification and studies are required. Furthermore, this number may come down once some required changes are undertaken.

The analysis also found the employment GFA is competing for residential GFA

The strategic transport infrastructure assessment identified Liverpool CBD as the retail and commercial development in a mixed use centre and identified Moore Point as high amenity mixed use precinct complementing the city centre and health and education

5.5.2 Social Infrastructure

A Community Benefit Analysis by Cred Consulting (2020) has been submitted which lists a wide range of social infrastructure that is needed and generated by this development, however the mechanism of delivery of social infrastructure has not been adequately addressed.

The following social infrastructure community benefits could be delivered with the precinct:

- Multipurpose community centre.
- Local community centre.
- Library.
- Primary School.
- Early childhood education and care.
- Health.
- Affordable housing.

5.5.1 Affordable Housing

The Greater Cities Commission's (formerly the Greater Sydney Commission) Greater Sydney Region Plan, A Metropolis of Three Cities, The Community Benefits Analysis (Cred Consulting, 2020) indicates the site could deliver at least 5-10% affordable housing for key workers and for very low and low income households.

Moore Point is ideally located near to public transport and employment opportunities for key workers, including Liverpool Hospital, and has been identified as an appropriate location for affordable housing. In particular, the subject site is located within 2km of Liverpool Hospital, and 25% of Liverpool Hospital staff live within 5 km and 47% within 10 kilometres of the hospital.

However, the report does not state the mechanism of delivery of affordable housing. A condition is imposed on the Gateway that requires the proponent to outline mechanism of delivery of affordable housing.

5.6 Infrastructure

5.6.1 Traffic and Transport

The road network surrounding Moore Point is well connected. Newbridge Road runs east-west along the southern boundary of the site and adjoins the Hume Highway to the west. The Hume Highway runs north south and provides access to the major road corridors of the M5 and M7.

The precinct adjoins Liverpool Train Station and there are direct routes to Parramatta and Leppington, Richmond via Blacktown and Central via Bankstown. A train journey to Parramatta takes approximately 24 minutes and a trip to the CBD takes approximately 1 hour. The existing bus network connects Liverpool to Campbelltown, Oran Park, Parramatta, Cabramatta, Fairfield and the Sydney CBD.

5.6.1.1 Transport Infrastructure Working Group (TWIG)

Due to the size and scale of the proposed development a traffic assessment that considered traffic and transport capacity in isolation would not be considered suitable as it was unlikely to accurately reflect the overall demand for transport infrastructure in Liverpool. As a result, Council and TfNSW established a Transport Infrastructure Working Group (TWIG) to ensure the proposal aligns with the overarching Place Strategy for Liverpool and future planned transport network. The TWIG comprised key stakeholder groups including: TfNSW, Liverpool Council, the Greater Sydney Commission, the Department of Planning and Environment and the Moore Point Joint Landowner Group. The TWIG agreed that transport infrastructure will be addressed through a two-stage approach, as follows:

- Stage 1 – the provision of a Preferred Land Use and Transport Infrastructure Scenario for Moore Point and the wider collaboration area, high level costing of key infrastructure requirements and an agreed funding mechanism.
- Stage 2 – the provision of a detailed transport and traffic assessment.

5.6.1.2 Stage 1 - Liverpool Collaboration Area – Strategic Transport Infrastructure Assessment

Liverpool Collaboration Area – Strategic Transport Infrastructure Assessment was prepared by Aurecon in July 2021 (**Attachment A17**) to detail transport infrastructure required to support growth in the Liverpool Collaboration Area.

Under this Stage the TWIG agreed on inputs and assumptions, timelines for testing, development staging and agreed on a preferred scenario and staging plan, and a high-level cost estimation for key infrastructure was also undertaken. This scenario was presented to the TWIG for endorsement to proceed to Stage 2.

The agreed growth projections for the precinct, up to 2056, is 13,778 dwellings and 4,036 jobs for a total population of 30,292 residents. The report identified the existing conditions would not be capable of accommodating growth, however it advised that a high growth scenario could be supported with significant infrastructure improvements.

It is noted that the high growth scenario under Liverpool Collaboration Area – Strategic Transport Infrastructure Assessment Moore Point is identified to deliver 4,036 jobs and the proposal is seeking to deliver a total of 23,000 jobs or an additional 18,964 jobs within the precinct. This is likely to have implications of traffic and transport infrastructure and is inconsistent with the growth targets identified and agreed to by the TWIG, including the Moore Point Joint Landowner Group.

A Gateway condition has been imposed to provide further information as to where the jobs derived from and the feasibility of this being delivered.

5.6.1.3 Liverpool Collaboration Area - Strategic Transport Impact Assessment

A Strategic Transport Infrastructure Assessment was prepared by Aurecon in April 2020 (**Attachment A18**) to assess strategic transport alignment in relation to the Moore Point planning proposal.

This assessment is high level and is not the detailed transport and traffic assessment identified as Stage 2 under the TWIG terms of conditions. The planning proposal advises the Stage 2 work is still being undertaken and consequently has not been provided to support the proposal.

This Assessment indicates the following work will be required:

- Bridges Road the main access to the development will require upgrading at the intersection with Newbridge Road. Details to be provided on completion of the Transport Impact Assessment.
- A bus interchange is proposed within the precinct, via Bridges Road and an internal ring road.
- The development will leverage of its proximity to Liverpool Station and proposes to provide a pedestrian and active transport connection to the station over the river.
- The proposal intends to leverage of the proposed Sydney Metro West line and the development has made allowance for the potential inclusion of a metro station at the bus interchange.
- A detailed transport and traffic assessment largely in the context of a Transport Management and Accessibility Plan (TMAP) will be required to identify the infrastructure and service requirements and determine transport infrastructure and services required to support the land use changes. Findings of Stage 2 TIA will provide a sound basis for the preparation of a suitable funding mechanism for the entire precinct (SIC, LIC, TIC, VPAs and the like).

5.6.1.4 Consideration of 9.1 Direction 5.1 Integrated Land Use and Transport

The objective of this direction is to improve access to housing, jobs and services by walking, cycling and public transport and to reduce dependence on cars. This direction applies as the proposal seeks to alter zones and provisions relating to urban land.

The proposal seeks to locate housing, jobs and services in proximity to public transport. The master plan suggests a well connected and integrated cycle and walking network throughout the precinct. As discussed in other parts of this report, further studies are required to address the impact of the development on the current road network and if any upgrades are required. A condition has been imposed on the Gateway to address this in further detail.

5.6.2 Schools

The Urban Design Report accompanying the Planning Proposal states that a primary school will be delivered as part of the development to service the population growth. School Infrastructure has advised that it wishes to be consulted as part of this process and work with the proponent and Council in delivering a school site.

The school site is shown adjacent to Haigh Park – no major issues are identified with the location if flooding can be addressed, however reliance on Haigh Park as the open space for students would not be supported. It would need to be proposed within the site or adjacent to the school which could serve as a dual function park (for the school and future community).

The final number of primary/secondary schools, location and functionality shall be agreed upon, in consultation. with SINSW. The Gateway requires consultation with SINSW as part of exhibition of the proposal.

5.6.3 Servicing

The proposal is supported by a Services Infrastructure Report prepared by ADW Johnson, April 2020 (**Attachment A19**). The assessment only assesses the land owned by Leamac and Coronation. The remaining lots within the precinct have not been considered in the proponent's report for services infrastructure.

The proponent sought advice from utility authorities to determine whether the existing trunk network can accommodate the proposed development. The advice is summarised in the table below.

Table 12. Summary of existing utility services infrastructure and upgrades required.

Utility Service	Utility authority contacted	Can the proposed overall development be serviced by existing trunk network?	Are there trunk upgrade works required to service the development?
Potable water supply	Sydney Water Corporation	Up to 2,000 dwellings	Yes
Sewerage infrastructure	Sydney Water Corporation	No	Yes
Electricity infrastructure	Endeavour Energy	No	Yes
Telecommunications infrastructure	NBN Co	No	Developer to connect nodes to each dwelling
Gas infrastructure	Jemena	Yes	Yes

Department comment

The assessment concludes that the existing utility services can either, in their current state or be upgraded to service the proposed development. Further consultation with relevant service providers is recommended.

5.6.4 Contributions

Local infrastructure

The proponent has submitted an Interim Letter of Offer (**Attachment A20**) to enter into a voluntary planning agreement with Council.

The Department anticipates that the public benefits will be largely delivered through a Section 7.11 Contributions Plan (s.7.11 Plan) for the broader precinct and may include a Voluntary Planning Agreement (VPA), where a s.7.11 Plan is not considered suitable.

5.6.5 Staging

An indicative staging plan for the Coronation and Leamac land has been provided as part of the Urban Design Report. However, the staging plan does not identify what infrastructure is to be delivered under each stage and does not address the 16 independently owned allotments.

Council's 25 November 2020 report stated that the proposal should include clear staging which limits the ability to obtain development consent for later stages to ensure development is appropriately sequenced and supported by infrastructure.

A detailed funding and delivery framework for developer contributions funding and staging of public infrastructure is to be developed prior to public exhibition. An adaptive management framework shall also be prepared to address flooding, evacuation and infrastructure concerns. School Infrastructure have requested the school site be identified for delivery in Stage 1 and programming and staging should ensure that early release developments have adequate access to open space.

6 Consultation

6.1 Community

Council proposes a community consultation period of 28 days.

The exhibition period proposed is considered appropriate, and forms to the conditions of the Gateway determination.

6.2 Agencies

It is recommended the following agencies be consulted on the planning proposal and given 28 days to comment:

- Transport for NSW
- School Infrastructure NSW
- Department of Education
- Infrastructure NSW
- NSW State Emergency Services
- NSW Office of Water
- NSW Rural Fire Service
- Fire and Rescue NSW;
- NSW Environment and Heritage
- Natural Resources Access Regulator (NRAR)
- NSW Environment Protection Authority
- Sydney Water Corporation
- Jemena
- NBN Co
- Endeavour Energy
- Gandangara Local Aboriginal Land Council
- NSW Health – Western Sydney Local Health District
- Department of Primary Industries – Fisheries
- Bankstown Airport

7 Timeframe

Council proposes a 13 month time frame to complete the LEP.

The Department recommends a time frame of 12 months to ensure it is completed in line with its commitment to reduce processing times. It is recommended that if the gateway is supported it also includes conditions requiring council to exhibit and report on the proposal by specified milestone dates.

A condition to the above effect is recommended in the Gateway determination.

8 Local plan-making authority

Council does not request delegation to be the Local Plan-Making authority and has requested the Department to take an active role in the planning process and be the Local Plan-Making authority.

As the planning proposal is significant in size, complexity and strategic importance the Department recommends that the Department be authorised to be the local plan-making authority for this proposal.

9 Assessment summary

The planning proposal is supported to proceed with conditions for the following reasons:

- Provides housing and jobs in proximity to the jobs, services, facilities and public transport available in the Liverpool CBD.
- Gives effect to the District Plans priorities to deliver a liveable, productive and sustainable Western Parkland City.
- Will assist to strengthen Liverpool CBD as a strategic centre and would give effect to the 30-minute city aspiration.
- The proposal is broadly consistent with the priorities under the Liverpool Collaboration Area Place Strategy.

Based on the assessment outlined in this report, the proposal must be updated before consultation to include:

- Further flood modelling and an Evacuation Plan to satisfy 9.1 Direction 4.3 Flood Prone Land.
- A new Master Plan and a revised Urban Design study using update flood modelling.
- Amendments to the Riparian Strategy to demonstrate compliance with the *Water Management Act 2000*.
- Revisions to the Biodiversity Assessment to address impacts on the waterways, flora and fauna.
- Open Space Needs Assessment to address open space requirements to support the new population.
- A detailed Heritage Assessment report to address impacts on the heritage item on site.
- Revisions to the Economic Impact Assessment to justify delivering jobs in the precinct and impacts on the Liverpool CBD.
- An infrastructure schedule including mechanisms for the delivery of all required infrastructure, road upgrades and any staging.
- Public Domain Strategy and an Ownership Strategy.
- An indicative affordable housing mechanism.

Based on the assessment outlined in this report, the proposal must be updated after consultation to include:

- A Hazardous Material Survey to satisfy 9.1 Direction 2.6 Remediation of Contaminated Land.
- Acid Sulfate Soil assessment to satisfy 9.1 Direction 4.1 Acid Sulfate Soils.
- Traffic Study and modelling to satisfy 9.1 Direction 3.4 Integrating Land Use and Transport.
- A site-specific Development Control Plan.
- A Coastal Study that identifies the land requiring coastal protections.
- A Bushfire Report that demonstrates compliance with relevant standards.
- A Landscape report and Landscape Plan.

This gateway does not approve any proposed dwelling or job numbers. As outlines above further studies and investigations are required to be undertaken to provide further clarity on the capacity of

the precinct. Yields achievable on the site (dwelling, jobs, vehicles) will be determined once the information above has been finalised and assessed.

10 Recommendation

It is recommended the delegate of the Secretary:

- Agree that any inconsistencies with section 9.1 Directions 4.4 Remediation of Contaminated Land and 5.3 Development Near Regulated Airports and Defence Airfields are minor or justified.
- Note that the consistency with section 9.1 Directions 3.1 Conservation zones, 3.2 Heritage Conservation, 4.1 Flooding, 4.2 Coastal Management, 4.3 Planning for Bushfire and 5.1 Integrating Land Use and Transport are unresolved and will require justification.

It is recommended the delegate of the Minister determine that the planning proposal should proceed subject to the following conditions:

Amendments prior to public exhibition

1. The planning proposal, reports and studies are to be updated to:
 - a. include the whole Moore Point precinct (as defined in the planning proposal);
 - b. have consistent dwelling and job numbers;
 - c. refer to the same Master Plan;
 - d. remove references to the Metro station;
 - e. reflect the Employment Zone Reform terminology for Business zones;
 - f. update mapping to;
 - i. Amend the Height of Buildings Map to show building heights in meters;
 - ii. Amend the FSR map in accordance with the findings of the Urban Design study referred to below;
 - iii. Amend the zoning map to show the RE1 applicable to riparian zones to be at least 40m wide, and other open spaces as appropriate zones;
 - iv. Propose any amendments to the heritage map;
 - v. Propose a key sites map showing the location of any school sites.
2. To satisfy:
 - section 9.1 Direction 4.3 Flood Prone Land,
 - the recommendations of the 2022 NSW Flood Inquiry, and
 - recommendations made by the Flood Planning Advice Panel,

the following must be undertaken, and the planning proposal updated as necessary to reflect the outcomes of:

- Further modelling and hazard mapping for the 1 in 100, 1 in 5000 and PMF events which must consider climate change impacts and be calibrated with the most recent flood events.
 - i. the modelling must support an updated Urban Design Report and revised master plan for the site, including the proposed location of any public space and the evacuation plan discussed below.
- Provide an amended Evacuation Plan. The Evacuation Plan is to identify critical infrastructure upgrades required for evacuation purposes, and provide a detailed staging and delivery plan, including dwelling thresholds for the delivery of

infrastructure. At least one pedestrian bridge and the levee are to form part of Stage 1.

- i. the Evacuation Plan, must determine (in consultation with the Department and agencies) the flood level for the three pedestrian bridges and demonstrate how the residents will evacuate, and the site be accessed where required in a 1 in 100 event, , 1 in 5000 event and in a PMF event.
 - ii. The Evacuation Plan must provide a strategy for emergency vehicle access to at least one of the proposed bridges.
 - iii. Evidence that the proposed pedestrian bridges required for the purpose of evacuation can be secured at the appropriate stage of development, the funding and delivery strategy, including the identification the owners of land where the bridges are located and in principle support from those landowners.
- Provide further detail how critical infrastructure will be provided above the PMF for all residents (including if wider network upgrades are required);
 - Provide further detail on the proposed levee including:
 - i. a plan showing its exact location,
 - ii. size,
 - iii. material,
 - iv. mechanism of delivery,
 - v. evidence of Council's support and consent for the levee (as owners of the proposed site),
 - vi. a maintenance plan and
 - vii. how safety will be addressed;
 - Provide a bulk earthworks/cut and fill plan and a fill strategy to demonstrate the elevation of all building pads will be above the 1 in 100 level plus 0.5m freeboard. The internal roads must be above the 1 in 100 level with rising egress to the evacuation routes;
 - Sections at various locations along the river to show levels (current and proposed) and relationships between river, embankment and future buildings; and
 - The modelling and evacuation strategy must submitted to the Department to enable an independent peer reviewed.

3. An updated Master Plan and an Urban Design Report must be prepared, for endorsement by the Department prior to exhibition, to address the following:

- The Master Plan must include,
 - i. Ground and building levels in RLs and height in metres
 - ii. New ground levels, and levels on adjoining land
 - iii. Development envelopes / massing and building heights in metres and storeys
 - iv. Open space and public domain
 - v. Street layout with block measurements
 - vi. Land use, including indicative car parking entry, design and levels
 - vii. An accompanying GFA schedule by building and stage, that shows dwelling numbers, and includes assumptions for the calculation of GFA dwelling size and mix.
- The Master Plan must demonstrate that:
 - i. Residential floors be above PMF level and all other uses to be above 1% AEP (plus 0.5m freeboard)
 - ii. All streets to be at least above the 1% AEP.
 - iii. Bridges, streets, building, and car parking is consistent with the recommendations of the updated Evacuation Plan.

- The Urban Design Report is to address the requirements of the Local Environmental Plan Making Guideline September 2022 – Attachment C for Urban Design - Urban setting /urban renewal sites/ infill site – Complex.
- The Urban Design Report is also to include:
 - i. Justification for proposed height and FSR.
 - ii. Propose a transition of FSR/height controls to minimise impact on heritage items, Georges River, Moore Lake and existing and proposed open spaces.
 - iii. A public domain strategy, with levels, areas, use, and that is consistent with the Evacuation Plan (refer to Condition 2(b) above and Open Space Needs Assessment (referred to in Condition 6 below).
 - iv. Ability to comply with SEPP 65 and the ADG, particularly, solar access.
 - v. Detailed shadow diagrams are to be provided which demonstrate the impact on existing parks and waterway as well as proposed parks, schools and residential units;
 - vi. A bulk earthworks/cut and fill plan, that demonstrates compliance with the Evacuation Plan
 - vii. Section plans, including sections at various locations along the river to show levels (current and proposed) and relationships between river, embankment and future buildings.
 - viii. Recommendations for detailed design controls required to be included in the DCP.
 - ix. High level Crime Prevention Through Environmental Design analysis
 - x. High level waste and servicing strategy
 - xi. Provide further information regarding the design of car parking to ensure it is flood proof and can withstand flood and debris loading to avoid structural failure. Car parking, along with street activation, needs to be designed in a way that does not compromise public amenity.

4. Amend the Riparian Strategy to address the following:

- Demonstrate compliance with the *Water Management Act 2000*; and
- Include plans showing inner and outer riparian corridors and all structures that encroach into this area. Certain buildings or structures may be proposed to be located on a riparian corridor consistent with relevant guidelines.

5. The Biodiversity Assessment must be updated to:

- Identify land comprising coastal protections, and the attributes and sensitivities of this site
- Address the impacts on the water quality, river flows, bushland and sensitive environments such as wetlands, freshwater and estuarine ecosystems;
- Reflect all current legislation, guidelines and assessment criteria;
- Identify which order stream the Georges River is and update the report accordingly;
- Ensure all species references and credit species references are correct;
- Identify the biodiversity values and consider the impact of the proposed development on the land identified to be zoned RE1 within the Precinct, including any indirect impacts to Haigh Park, The Georges River and Lake Moore. This should also include consideration of the impacts of any development proposed within these areas such as upgrades to Haigh Park, the installation of pathways, lighting and overshadowing;
- Adequately justify any impact to threatened ecological communities;
- Update the Biodiversity Assessment Report to include a discussion on how the existing biodiversity values informed the land zoning and development footprint.

- Review and address NSW Environment and Heritage Group (EHG) comments in regard to:
 - i. exclusions of ecosystems credits and;
 - ii. undertake target surveys in the correct times of the year.
6. Provide an Open Space Needs Assessment that addresses:
 - The quantum, size, locations and type of open space required to support the new population. Consideration should be given to the location of a significant portion of the open above the 1% AEP, clarifying how much open space is proposed to be located on flood prone land.
 - Demonstrate that the active recreation needs of the future population can be accommodated.
 - Update the plans to identify a minimum 40m width of the river foreshore for public use;
 - Identify the location of a park in the southern end of the precinct to ensure all residential development is located within 200m of public open space and ensure it is at least 0.5ha in size;
 - Provide options to accommodate the additional 1.5ha open area adjacent Haigh Park and provide at least one district level sports field within this area;
 - Ensure 50% of every park receives a minimum of 4 hours solar access between 9am to 3pm on the 21 of June and 20% of each park is protected from direct sunlight on 21 December, private and publicly accessible, private open space; and
 - Provide a dedication plan of all public spaces.
 7. A heritage assessment report which addresses any impact on heritage items on site, as well as adjoining heritage items to the precinct. The report must investigate adaptive reuse options which would allow for the buildings to be retained.
 8. A revised Economic Impact Assessment to address the ability and justification of delivering jobs in the precinct and demonstrate that the CBD will not be undermined;
 9. Provide a public domain strategy and an ownership strategy;
 10. Provide for the provision of affordable housing;
 11. The updated planning proposal and all supporting documentation noted above must be submitted to the Department for review.

Public exhibition

12. Public exhibition is required under section 3.34(2)(c) and clause 4 of Schedule 1 to the Act as follows:
 - (a) the planning proposal is categorised as complex 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 **28 days**; and
 - (b) 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).
 - (c) Exhibition must commence before the end of September 2023.

13. 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:

- Transport for NSW
- School Infrastructure NSW
- Department of Education
- NSW Office of Water
- Infrastructure NSW
- NSW State Emergency Services
- NSW Rural Fire Service
- Fire and Rescue NSW;
- NSW Environment and Heritage
- Natural Resources Access Regulator (NRAR)
- NSW Environment Protection Authority
- Sydney Water Corporation
- Jemena
- NBN Co
- Endeavour Energy
- Gandangara Local Aboriginal Land Council
- NSW Health – Western Sydney Local Health District
- Department of Primary Industries - Fisheries
- Bankstown Airport

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 21 days to comment on the proposal.

14. 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 (for example, in response to a submission or if reclassifying land).

Prior to finalisation

15. To satisfy section 9.1 Direction 2.6 Remediation of Contaminated Land, a Stage 2 Contamination Report and Hazardous Material Survey is required.
16. To satisfy section 9.1 Direction 3.4 Integrating Land Use and Transport, a detailed Traffic Study and modelling to demonstrate impacts on the existing road network and compliance with the Liverpool Collaboration Area – Strategic Transport Infrastructure Assessment.
17. A site-specific Development Control Plan to implement the updated Master Plan and Urban Design Report must be prepared and exhibited.
18. Post exhibition, the applicant must provide:
- A bushfire report that demonstrates compliance with relevant standards;
 - An acoustic report; and
 - A landscape report and landscape plan;
19. The Council as planning proposal authority is not authorised to exercise the functions of the local plan-making authority under section 3.36(2) of the EP&A Act

20. The LEP should be completed on or before 31 March 2024.

 (Signature)

3 April 2023 (Date)

Monica Gibson

A/Deputy Secretary, Planning & Land Use Strategy



31/03/2023

Catherine Van Laeren

Executive Director



31 March 2023

Adrian Hohenzollern

Director, Western