Department of Planning and Environment

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Westmead Integrated Mental Health Complex

State Significant Development Assessment Report (SSD-44034342)

December 2023

Acknowledgement of Country

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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Preface

This assessment report provides a record of the Department of Planning and Environment's (the Department) assessment and evaluation of the State significant development (SSD) application for the Westmead Integrated Mental Health Complex located at Westmead Hospital, lodged by Health Administration Corporation. The report includes:

- an explanation of why the project is declared SSD and who the consent authority is.
- an assessment of the project against government policy and statutory requirements, including mandatory considerations.
- a demonstration of how matters raised by the community and other stakeholders have been considered.
- an explanation of any changes made to the project during the assessment process.
- an assessment of the likely environmental, social and economic impacts of the project.
- an evaluation which weighs up the likely impacts and benefits of the project, having regard to the proposed mitigations, offsets, community views and expert advice; and provides a view on whether the impacts are on balance, acceptable.
- a recommendation to the decision-maker, along with the reasons for the recommendation, to assist them in making an informed decision about whether development consent for the project should be granted and any conditions that should be imposed.

Executive Summary

This report details the Department's assessment of State significant development application SSD-44034342 for the Westmead Integrated Mental Health Complex.

This report will be provided to the delegate of the Minister for Planning and Public Spaces (the Minister) for their consideration when deciding whether to grant consent to the SSD.

Project

Health Infrastructure, on behalf of Health Administration Corporation (the Applicant), proposes to construct and operate a 10 storey Integrated Mental Health Complex (IMHC) within the Westmead Hospital campus. The project is located at the corner of Hawkesbury Road and Darcy Road, Westmead within the City of Parramatta local government area (LGA).

The project has a capital investment value exceeding $30 million and is expected to generate 606 construction jobs and 291 operational jobs. If approved, construction of the project is proposed to commence in 2024 and be completed by 2025.

Strategic context

The Department considers the development is consistent with the principal aims of key relevant strategies including the NSW Premier's State Priorities, the Greater Sydney Region Plan and Central City District Plan, Transport for NSW's Future Transport Strategy 2056, Infrastructure NSW's State Infrastructure Strategy 2022-2042, the City of Parramatta Local Strategic Planning Statement and Government's response to the NSW Flood Inquiry.

Statutory context

The project is classified as State significant development (SSD) under section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it is for the purposes of a hospital and has a CIV greater than $30 million pursuant to clause 14 of Schedule 1 of *State Environmental Planning Policy (Planning Systems) 2021*. Consequently, the Minister is the consent authority for the project under section 4.5A of the EP&A Act.

The application is permissible with consent.

Engagement

The Department exhibited the environmental impact statement (EIS) from 25 May 2023 until 21 June 2023. During the exhibition period, the Department received:

- two submissions from the public (general comment from two individuals) raising concerns with the capacity of the existing carpark, environmental sustainability, building aesthetics and a lack of landscaping integration within the building.
- a submission from the City of Parramatta Council (Council), commenting on the project.
- advice from the following ten government agencies:
  - Endeavor Energy
  - Sydney Water
  - Fire and Rescue NSW
  - NSW SES
  - Civil Aviation Safety Authority (CASA)
  - DPE Water
  - DPE Crown Lands
  - DPE Environment and Heritage Group (EHG)
  - Heritage NSW (Aboriginal Cultural Heritage)
  - Transport for NSW (TfNSW).

Key concerns raised in the Council and government agency comments related to flooding, flood emergency response, on-site car parking, traffic modelling, urban design and tree loss.

The Applicant submitted a submissions report on 30 August 2023 to address the issues raised in submissions and agency advice.

The Applicant provided further information on 11 October 2023 to address concerns raised by Council, the Environment and Heritage Group (EHG) and the NSW SES.

Assessment

Traffic, transport and parking

The Department has undertaken a thorough assessment of the proposal against the relevant traffic, access, and parking considerations.

Operational traffic was analysed regarding existing and post-development scenarios. The IMHC is expected to generate approximately 167 and 129 vehicle trips (staff and visitors) respectively in the AM and PM peak hour periods, resulting in minor impacts on the performance of surrounding intersections. On balance, the Department has determined that the IMHC would not lead to significant traffic issues, and no additional traffic mitigation measures were recommended by TfNSW or the Department.

Construction traffic was also considered, with up to 120 trucks per day estimated to access the site during peak construction activities. Construction vehicle site access is proposed Dragonfly Drive (via Mons Road / Darcy Road).

Parking facilities were found to be sufficient, with 349 staff spaces allocated to the IMHC in existing Car Park 23 and 28 short-stay visitor parking spaces proposed in the new IMHC short-stay carpark. The proposal complies with numeric visitor parking requirements, and the existing parking facilities are expected to have surplus capacity following the IMHC's completion.

Overall, the Department concurs with the findings of the Applicant's Transport Impact Assessment (TIA) and determined that the IMHC development would not result in unacceptable traffic impacts or safety concerns on the local road network, subject to specific conditions and standards to ensure pedestrian safety.

Noise and vibration

For construction noise and vibration impacts, the loudest activities were identified as piling and excavation with hydraulic hammers. The NVIA concluded that with the implementation of noise mitigation measures, construction noise levels at surrounding residential receivers would not exceed relevant guidelines.

Regarding operational noise and vibration impacts, mechanical plant noise, including cooling towers and air handling units, was identified as the primary source. The installation of rooftop cooling towers required noise mitigation measures, such as operating units at reduced speed at night and using barriers or acoustic louvres. The NVIA determined that compliance with noise level criteria would be achieved with recommended controls.

Traffic noise impacts were assessed using the NSW EPA Road Noise Policy, concluding that the proposed development's additional traffic would have an insignificant impact.

The NVIA provided various mitigation recommendations, such as quieter construction methods, noise management plans, and consultation with childcare facility staff regarding scheduling of high-impact works. The Department concurs with these recommendations and proposed conditions, including the preparation of a Construction Noise and Vibration Management Plan (CNVMP) and a detailed acoustic review of plant items during the equipment selection and duct layout design stage.

Built form, urban design and landscaping

The Department considers the bulk and scale of the IMHC to be sympathetic to its context, with an average height lower than adjoining buildings, including the Central Acute Services Building (CASB) and the future Paediatric Services Building (PSB). The design strategy includes stepped landscape terraces, differing façade treatments, and materials to reduce the perceived bulk and scale. The State Design Review Panel (SDRP) found no concerns with the proposed height and massing of the peninsula wings.

The landscaping design focuses on various areas, including streetscape elements along Redbank Road, a public open space to the north, staff courtyards, and courtyards on different levels. The proposal includes a substantial increase in tree canopy.

Overall, the Department is satisfied with the design and landscaping of the proposed IMHC, taking into consideration the recommendations of the SDRP and the responses to concerns raised during the review process.

Flooding

The development site is subject to potential flooding from both riverine and overland flow sources. The site experiences inundation, with depths of up to 0.2m at the 1% Annual Exceedance Probability (AEP) overland flood event through to 0.5m at the Probable Maximum Flood (PMF) overland flood event. Riverine flooding, on the other hand, results in inundation depths exceeding four metres at the PMF event, however the site remains unaffected during the 1% and 0.05% AEP riverine flood events.

The Flood Impact Assessment (FIA) conducted as part of the EIS determined that the proposed building's lowest finished habitable floor level (17.9m AHD) would be unaffected by both 1% AEP and 0.05% AEP flood levels, with ample freeboard. Essential facilities within the building would be placed at 21.9m AHD, well above the PMF flood level.

Noting that all clinical facilities would be situated above the PMF flood level, all structures are designed to withstand floods and flood impacts on nearby buildings would remain generally consistent with existing flood scenarios, the Department considers the flood risk to be acceptable.

Regarding the Applicant’s flood response, the Applicant developed a Site Flood Emergency Response Plan (SFERP), which included a shelter-in-place strategy for isolated PMF events. The Department considers this strategy acceptable due to the development’s design, the short duration of isolation during PMF event, as well as the Westmead hospital wide approach to managing flood led by the Westmead Hospital Disaster Controller. The Department recommends the finalisation of an operational flood emergency management plan (FEMP) as part of the overall Westmead hospital

precinct's Westmead Hospital Emergency Management Supporting Plan to manage flood impacts during operation.

In summary, the Department finds the proposed project and associated risks to vulnerable people to be acceptable subject to conditions, appropriate flood management and flood response strategies being in place.

Conclusion

Overall, the Department's assessment concludes the project would:

- provide benefit for the community by delivering improved and expanded health facilities.
- be consistent with government strategy
- provide economic benefits, generating approximately 606 construction jobs and 291 operational jobs through investment in health infrastructure.

Additionally, the Department has applied a risk-based approach to the assessment of the flood-affected proposal and has concluded that flood related risks would be appropriately managed, subject to conditions.

As such, the Department considers the benefits outweigh the costs, that the project is in the public interest and is recommended for approval, subject to conditions.

Contents

1 Introduction

1.1 The proposal

Health Administration Corporation (the Applicant) on behalf of Health Infrastructure NSW, proposes the construction and operation of a 10 storey Integrated Mental Health Complex (IMHC), with key supporting elements including:

- site establishment.
- site preparation including earthworks, tree removal, cut and fill and building foundation works.
- construction of internal road and carpark alterations and upgrades.
- inground building services works and utility adjustments, including service diversions.
- link bridge connection to the existing central acute services building.
- signage, including wayfinding.
- landscaping.

The project description and mitigation measures provided in **Section 3** and **Appendix B** of the environmental impact statement (EIS) are the subject of this report and will form part of the development consent if the project is approved.

An overview of the proposed development as amended is provided in **Section 2**.

1.2 Project location

The proposed Integrated Mental Health Complex (IMHC) is located within the existing Westmead Hospital campus. The hospital campus is located at the corner of Hawkesbury Road and Darcy Rd, Westmead in the City of Parramatta local government area (LGA) and within the Greater Sydney region of NSW (see **Figure 1**).

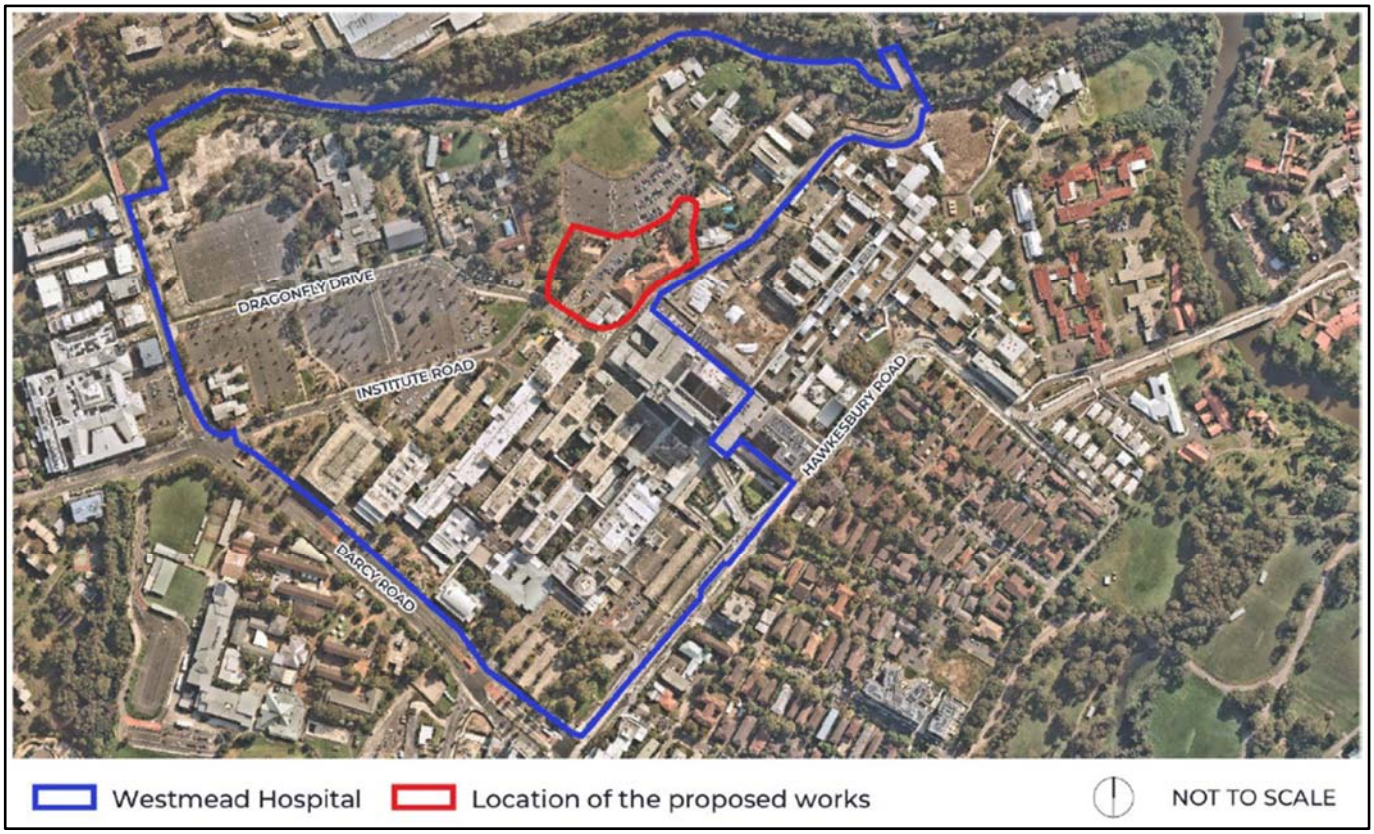

Figure 1 | Local context map (Source: EIS)

The hospital campus is legally described as Lot 1 DP1194390 and Lot 4 DP 1077852. The proposed works would be carried out within the central part of the hospital campus, located within a 1.15ha portion of Lot 1 DP 1194390, known as the 'site' (shown in **Figure 1**).

The development site is generally flat, with a slope down to the north and east towards Toongabbie Creek and Parramatta River. The current site elevation within the project boundary ranges from 16m AHD to 20m AHD.

Existing development on the IMHC site includes the Brain Injury Rehabilitation Unit (BIRS) building, Casuarina Lodge, office buildings and associated at-grade car parking and open space areas. The IMHC site also comprises vegetation in the form of garden beds, planted vegetation, grassland, and a series of native, exotic and ornamental trees (see **Figure 2**).

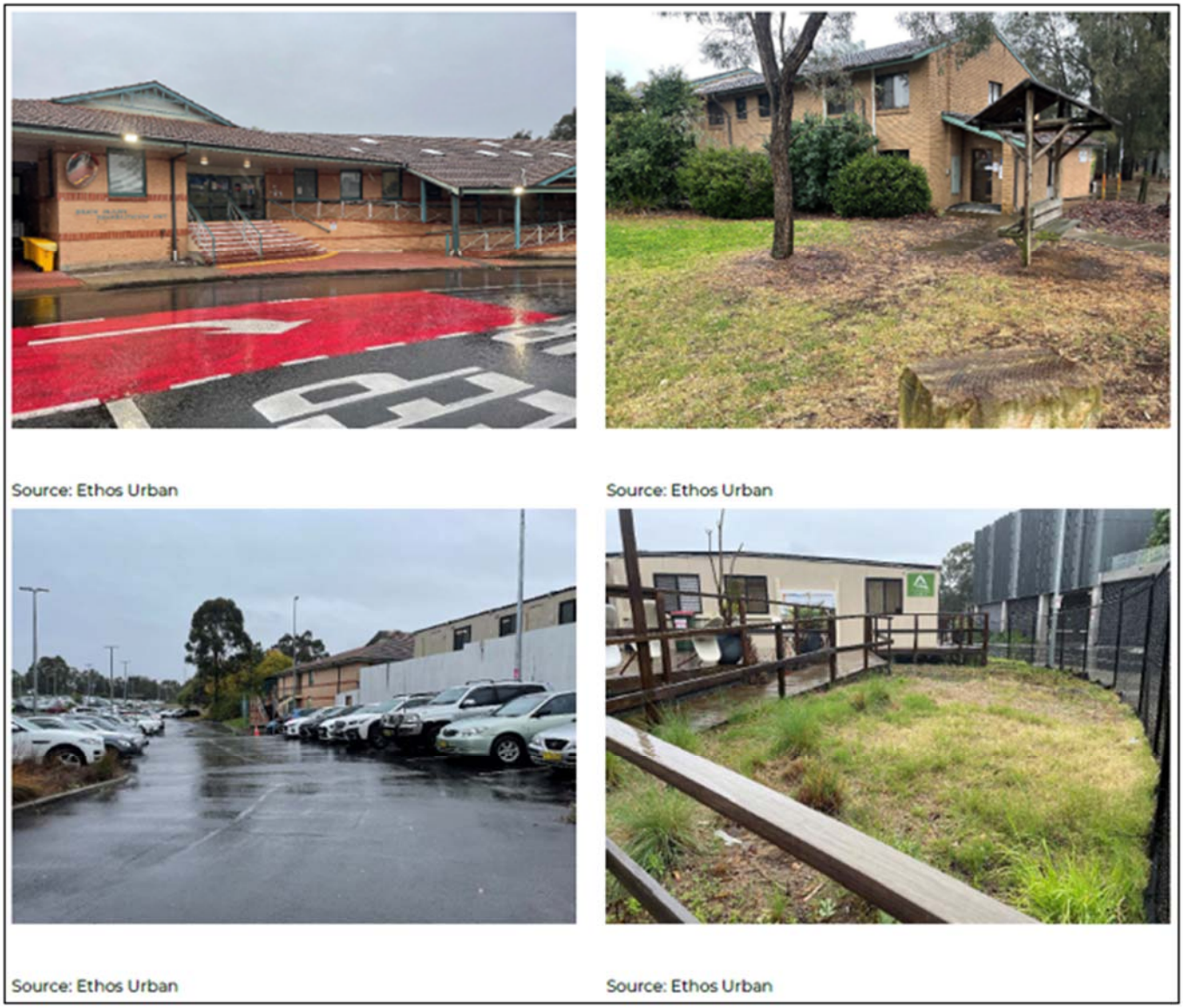

Figure 2 I Existing development in vicinity (Source: EIS)

The proposed IMHC is predominantly surrounded by buildings and infrastructure associated with the Westmead Health Precinct (see **Figure 3**). Specifically:

- North: directly north of the proposed IMHC is an at-grade carpark which provides parking for staff at Westmead Children's Hospital. Beyond this, the area is characterised by industrial development in Northmead.
- East: to the east of the site are two childcare centres and Westmead Children's Hospital. The Cumberland Hospital campus is located further east of the site.
- South: buildings associated with Westmead Hospital are located to the south of the site, with the Central Acute Services Building (CASB) located directly adjacent to the proposed IMHC. Beyond this, the local area is characterised by low density residential development and the University of Western Sydney Westmead Campus.

- West: the proposed IMHC would be directly adjacent to Redbank School, which caters to students experiencing acute mental illness and ongoing significant mental health related difficulties. Further west is a number of at-grade carparks for staff at Westmead Hospital.

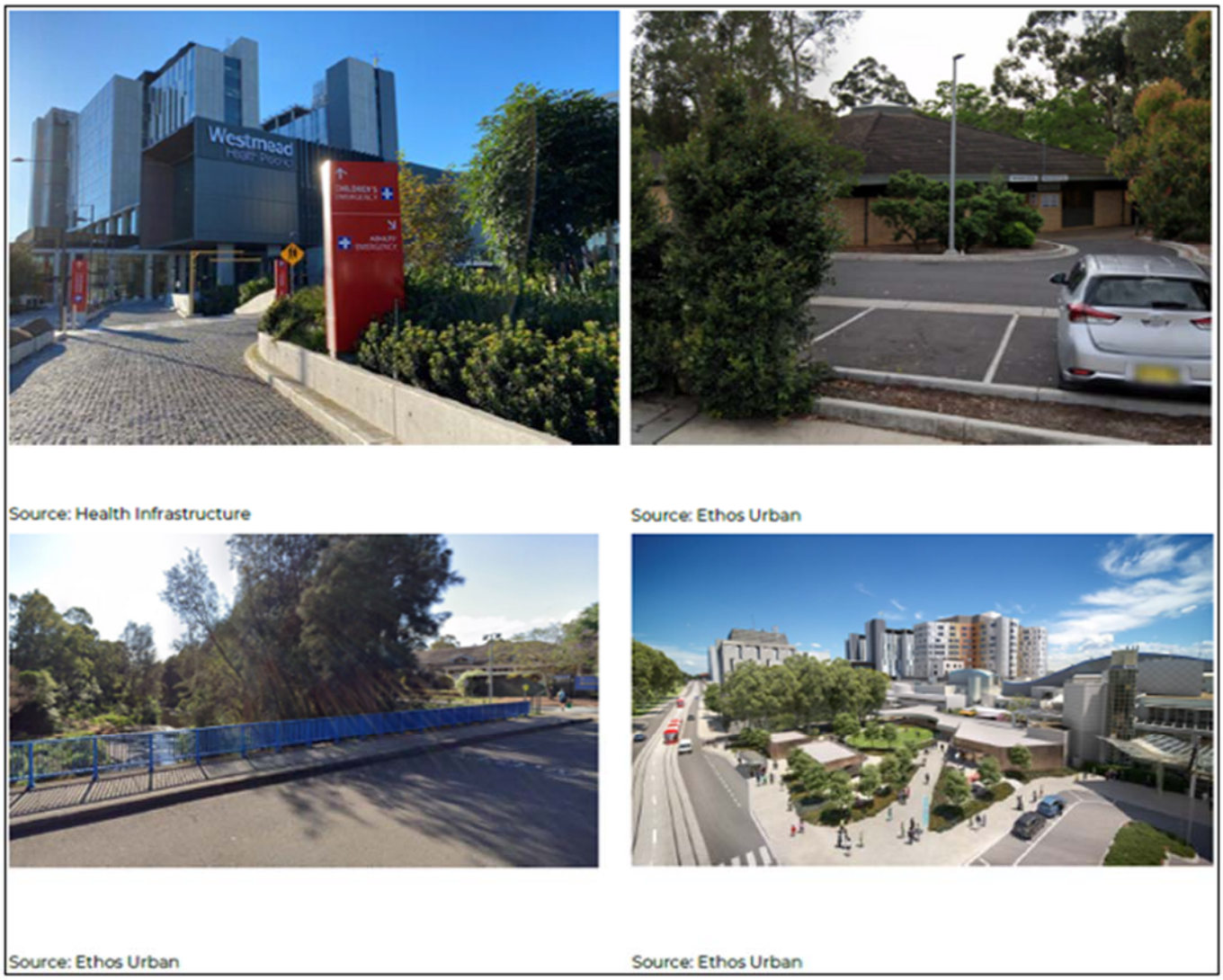

Figure 3 I Surrounding development within Westmead Hospital campus (Source: EIS)

The site is not identified as being located on land that is bush fire prone. There are no heritage items located on the site or within the vicinity of the site.

Site Context

Westmead Hospital is located approximately 1.5km north-west of the Parramatta Central Business District (CBD), the primary metropolitan centre of Western Sydney (see **Figure 4**).

Westmead Hospital is located within the wider Westmead Health, Research, Education and Innovation Precinct. The Precinct spans approximately 75 hectares and comprises over 400,000sqm of health-related developments including four major hospitals, four world-leading medical research institutes, two university campuses and the largest research-intensive pathology service in NSW.

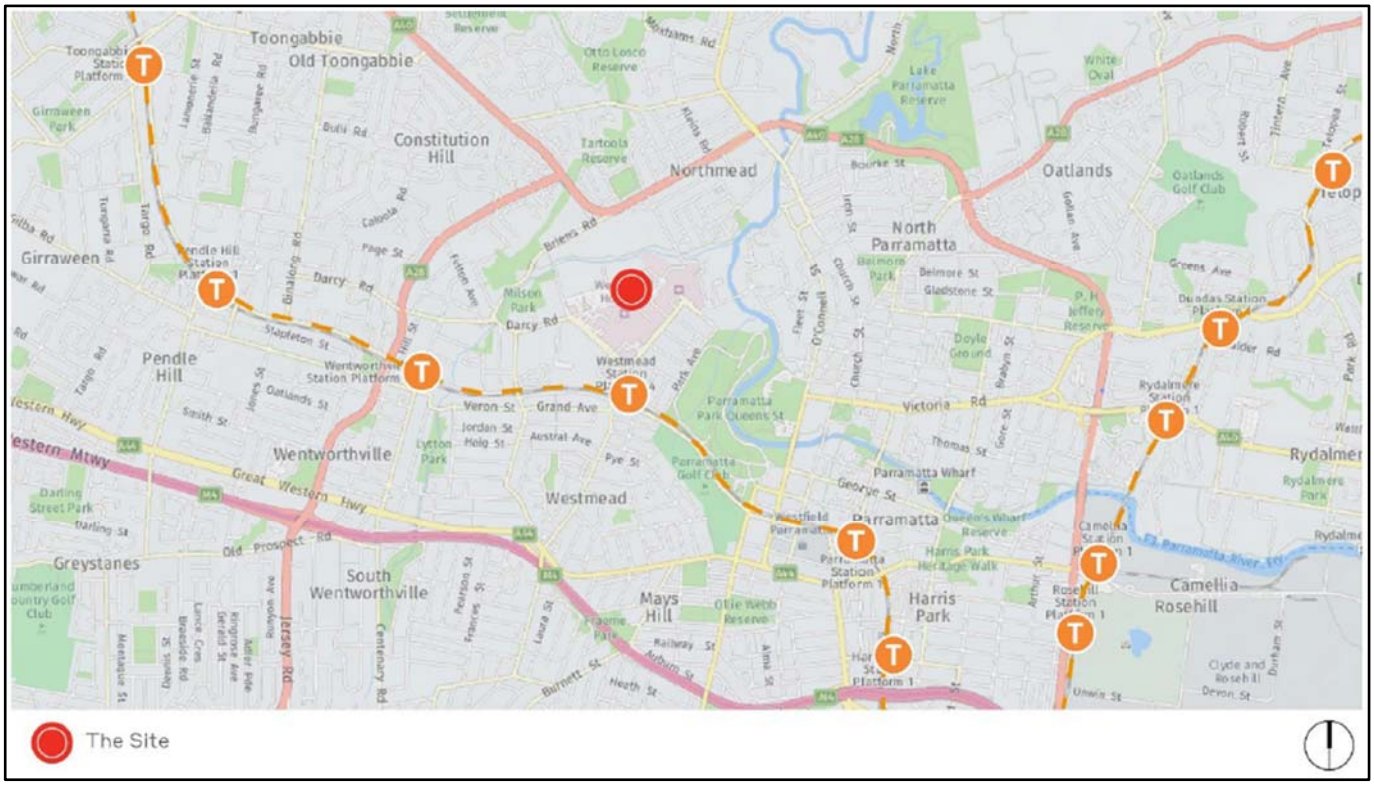

Figure 4 | Regional context map (Source: EIS)

Transport and Accessibility

Access to Westmead Hospital is provided from Hawkesbury Road, Darcy Road, Institute Road, Redbank Road and Dragonfly Drive. Access is provided to car parking areas, front-of-house, emergency department drop off areas, ambulance bays, loading dock and waste collection areas via the internal road network.

Several car parking facilities are provided on the hospital campus for hospital staff and consumers. Carparks P14 and P23 are the most relevant to the proposal and respectively provide 422 and 479 car parking spaces for staff only (see **Figure 5**).

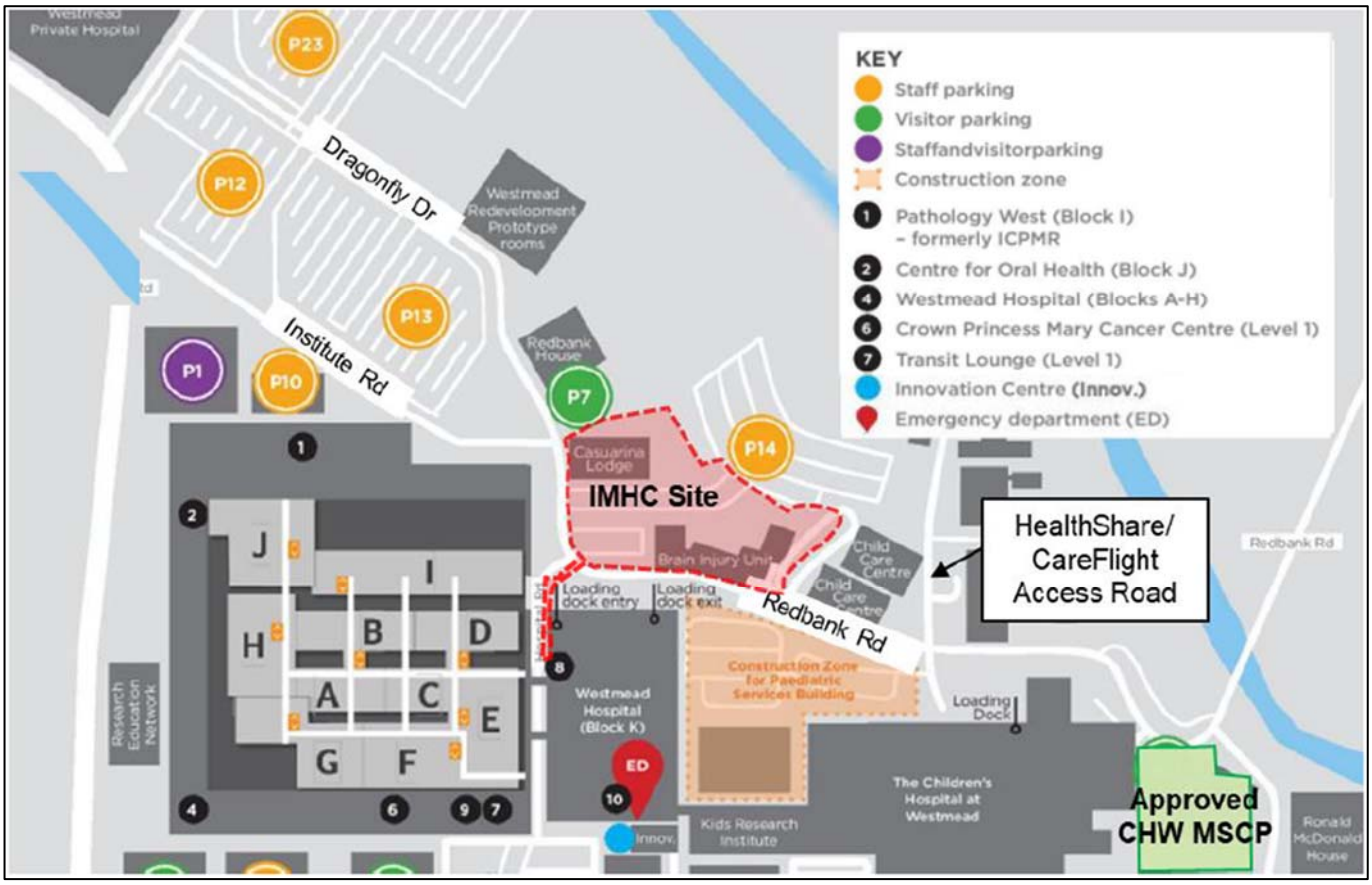

Figure 5 I Carpark locations (Source: Transport Impact Assessment)

The site is surrounded by key pedestrian infrastructure, including footpaths and refuge islands provided on the surrounding roads. The main pedestrian access points to the hospital campus are located off Darcy Road and Hawksbury Road.

The campus is well connected to several existing and future public transport services, including train (Westmead Railway Station), bus (North-West T-Way), light rail (future Parramatta Light Rail Stage 1) and metro services (to be located south of Westmead Railway Station).

Vegetation

The majority of the campus comprises existing buildings, roads and car parking areas, with a spread of vegetation throughout. Within the boundaries of the IMHC site, garden beds, planted vegetation, grassland, and a range of native, exotic and ornamental trees can be found.

Flooding

Directly north of the site exists a watercourse referred to as Toongabbie Creek, a tributary of Parramatta River. Due to the proximity of this watercourse to the development site (approximately 115m), the subject land is currently affected by riverine flooding. The site if also affected by overland flooding.

Contamination

The site has historically been used for agricultural purposes prior to the use of the site as a hospital commencing in the 1970's. Several contaminants have been identified on-site, including asbestos and heavy metals. Remediation is already occurring within the hospital grounds in accordance with a recent development consent (SSD-10349252).

1.3 Project background

In May 2022, the NSW Government announced the investment of $460 million into the development of a new Integrated Mental Health Complex at Westmead, intended to transform the delivery of mental health services across Western Sydney and provide improved care for patients in line with state and national mental health reforms. The Integrated Mental Health Complex would replace the existing mental health facilities at Cumberland Hospital.

The Westmead Health Core Masterplan was prepared in 2020 for the Westmead Health Precinct. The Masterplan is not a statutory document. Instead, it establishes a series of design principles and a structure plan to guide future development. Key outcomes of the Masterplan include:

- providing greater connectivity within the site to green space and other developments.
- parking at the perimeter of the Westmead Health Core to minimise through traffic.
- vehicle and pedestrian separation.

1.4 Related projects and works

The release of the Westmead Health Core Masterplan has resulted in recent renewal and expansion of the health service facilities within the Westmead Health Precinct. The following projects have recently been completed or are currently under construction:

- SSD-7642: Central Acute Services Building (CASB), providing a new and expanded Children's Emergency Department, short-stay unit, additional operating theatres and shared medical imaging services. Completed and operating.
- SSD-10434896: Multi-storey Carpark, providing 997 car parking spaces for Westmead Children's Hospital staff. Under construction.
- SSD-10349252: Paediatric Services Building (PSB) at Westmead Children's Hospital, providing additional surgery, inpatient and critical care services. Under construction.

A range of separate infrastructure improvement works are occurring across the hospital campus under a separate application via Part 5 of the EP&A Act and as Development Without Consent under *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP). The infrastructure

improvement works were approved by Health Infrastructure on 3 May 2023, and are required for efficient sequencing of works and to ensure the ongoing operation of the hospital. These works are separate to the subject SSD works and include:

- the demolition of structures within the subject site.
- installation and augmentation of services.
- tree removal.
- realignment of internal roads.
- internal refurbishment, landscaping and remediation works.

2 Project

2.1 Project overview

The key aspects of the project are provided in detail in Chapter 3 of the EIS and are outlined in Table 1.

Table 1 | Key aspects of the project

Aspect	Description
Project summary	Construction and operation of a 10 storey Integrated Mental Health Complex located within the Westmead Hospital campus.
Physical layout and design	A 10-storey building that incorporates a rectangular shaped base component (comprising building entries and support areas) which breaks into five peninsular wings (used for patient accommodation and courtyards). The building would also include connection to the CASB via a bridge at Level 2 and Level 3. An at-grade carpark would be constructed and would provide 28 car parking spaces for IMHC visitors. Additional works to be undertaken as part of this proposal include landscaping and public domain works which comprise addition tree planting, provision of vegetation and installation of furniture.
Proposed SSDA site preparation activities	Earthworks, tree removal, remediation and services infrastructure (noting that these activities are in addition to the site preparation activities approved under REF Approval No. 10/2023 and 10/2023/A).
Gross Floor Area (GFA)	38,000sqm
Maximum height	RL66.20 (48.9m)
Storeys	10 storeys
Car spaces	• 28 additional car parking spaces are proposed within the childcare carpark to the eastern side of the IMHC for use by IMHC visitors only. • Allocation of 349 existing spaces in Car Park 23 for use by IMHC staff.
Bicycle spaces	30 bicycle spaces to be provided within the public domain adjoining the short-term carpark

Aspect	Description
Signage	13 building/business identification signs have been proposed, comprising: • two illuminated business identification signs affixed to the façade of the IMHC building (east and west elevations). • 11 wayfinding pylon signs to the perimeter of the IMHC site.
Proposed tree removal	34 trees and 15 Palm Trees
Proposed tree canopy	Overall tree canopy of 3,364sqm, equating to an 280sqm increase in tree canopy
Ancillary Use	Retail space is proposed on Level 0 and would be ancillary to the hospital use, such as a kiosk-type food and drink premises.
Operational hours	24 hours a day, seven days a week
Construction hours	• 7am to 6pm, Monday to Friday. • 8am to 1pm on Saturday. • No work on Sunday or public holidays.
Staging	The works proposed under this SSDA will be carried out as a single stage. The construction works are anticipated to commence in 2024 and will be completed in Q1 2025.

2.2 Physical layout and design

The proposed IMHC building would be situated in the central part of the Westmead Hospital campus and would be fully integrated with the existing facilities and adjacent buildings. The proposal comprises a 10-storey building that will have a maximum height of 48.9m (RL66.20) when measured from the ground (including plant). The building would have a total GFA of 38,000sqm.

The design and massing of the building is based on an 'open hand' concept aligning with Connecting to Country principles. It would comprise a base component (the palm) and peninsula wings (the fingers). The base component is generally rectangular in shape and would include all support spaces and building entries to the IMHC. The IMHC would also include a pedestrian connection to the adjoining CASB via a skybridge at Level 2 and Level 3 (see **Figure 6**).

On the northern side, the building mass breaks into five peninsula wings which include patient accommodation and would open out to secure patient courtyards. The peninsula wings would be suspended above the ground to provide clearance for vehicular access to the loading dock and pedestrian access to the staff courtyard.

The building has been designed to ensure that no clinical facilities or essential plant are located below 21.5m AHD, being the PMF flood level.

The project has been assessed by the SDRP, which is discussed in detail under **Section 6** of this report.

Figure 6 | Site layout (Source: Architectural Plans)

Hospital entrance and drop-off

Entry to the IMHC would be provided from at Level 0 and is accessed from the drop-off area on Redbank Road or from the car parking area located to the east of the building. The main entry includes public lifts and open communication stairs which provide access to the public realm on Level 1 and the reception area on Level 2.

General access to the building would also be provided from Level 2 via a proposed pedestrian skybridge, which connects to the CASB.

Car parking

The application proposes the construction of 28 additional car parking spaces within the childcare carpark (i.e. IMHC short-stay carpark) to the eastern side of the IMHC for use by IMHC visitors only.

The remaining 27 car parking spaces within this carpark would be allocated to the existing childcare centre.

While the application does not propose the construction of additional car parking facilities to accommodate IMHC staff, it is proposed to allocate 349 car parking spaces to IMHC staff within existing Car Park 23 (P23) (shown on **Figure 5**). The submitted TIA indicates that this allocation strategy is possible due to P23 becoming vacant following the opening of the new Childrens Hospital at Westmead (CHW) Multi-Storey Carpark (MSCP), with all CHW staff currently parking in P23 to relocate into the new MSCP. As P23 will no longer be required to accommodate CHW parking demands, all parking demand generated by IMHC can be accommodated in this carpark.

Ancillary retail

Retail space is proposed on Level 0 and would be orientated to both the street and the internal spaces. This retail will be ancillary to the hospital use, such as a kiosk-type food and drink premises that will cater to the needs of the hospital and its users.

Pedestrian sky bridge

A pedestrian sky bridge link is proposed to connect the IMHC and the existing CASB across Redbank Road. This will be located on Level 2 and Level 3 of both buildings and would achieve a height of 4.6m above ground level. It would provide a seamless connection for all users and logistics between the main Westmead Hospital entrance and car parking areas located on Hawksbury Road to the IMHC via the CASB.

Landscaping

The application proposes the removal of 34 trees and 15 Palm Trees to facilitate the proposed development.

The landscape design concentrates its focus on streetscape elements along Redbank Road, a 'park-like' public open space to the north, staff courtyard, the eastern entry, loading dock and within the courtyards (Levels 1 to 9). The proposed landscaping scheme would result in an increase in canopy cover from 1,116sqm to 2,906sqm.

2.3 Uses and activities

The proposed works would enable the continued use of the site as a hospital.

The IMHC would provide between 250-300 in-patient beds for mental health services and brain injury rehabilitation. Several treatment spaces will also be provided within the IMHC, including an electroconvulsive therapy procedure room and various meeting rooms for private and group therapy.

The proposed development would operate as an in-patient facility 24 hours a day for seven days a week. Visiting hours will be established prior to the commencement of operation and will vary based on the type of in-patient care being provided.

The proposed development would generate approximately 291 FTE (full time equivalent) jobs during the operational phase. Staff at the IMHC will comprise a series of nurses, doctors, allied health professionals, corporate and support staff, and ancillary roles such as retail assistants.

2.4 Timing and sequencing

The SSDA works are anticipated to commence in Q4 2023 and will be completed in Q1 2026. Operation of the IMHC will commence in Q1 2026.

Construction staging and phases are not proposed.

Prior to the commencement of the proposed SSDA works, a series of separate but related infrastructure improvement works will occur on site to ensure the ongoing operation of the hospital. These works (discussed in **Section 1.4**) will be carried out between Q 2022 and Q2 2023 and form part of a separate planning approval.

3 Strategic context

3.1 Key strategic issues

The project is largely consistent with the strategies, plans and policies outlined in **Table 2** below, and therefore the Department considers it appropriate for the site.

Table 2 | Summary of government strategies, plans and policies

Strategy, plan or policy	Consistency	Comments
NSW State and Premier's Priorities	Consistent	The proposal will deliver on key state priorities, including: • building infrastructure. • improving service levels in hospitals. • better access to community mental health services. • providing community health and public health services. • jobs closer to home. • improving outpatient and community care. The proposal will deliver health infrastructure that will reduce waiting times by improving capacity, allowing for greater integration of services, and creating greater efficiencies by incorporating state of the art facilities and equipment. The proposal will create job opportunities in manufacturing, construction and construction management during the project's construction phase of works, and job opportunities in health and administration at the project's completion.
Greater Sydney Region Plan & Central City District Plan	Consistent	The proposed Integrated Mental Health Complex within the Westmead Health Precinct will support the vision of boosting Greater Sydney's liveability, productivity and sustainability. In a general sense, the proposal will closely align with the key priorities and vision identified in the District and Region Plan by: • integrating and targeting delivery of services and infrastructure to support population growth and respond to the needs of different population groups. • delivering key infrastructure that will reduce the strain on existing hospital services and capacity.

Strategy, plan or policy	Consistency	Comments
		• integrating a diverse range of services on site to deliver an efficient and effective model of health care. • providing additional employment opportunities within the Central City District to assist in achieve the 30-minute city vision. • specifically, the redevelopment of Westmead health and education precinct has been earmarked by the NSW Government to provide up to 50,000 jobs and to transform the precinct into a world-class health city.
Parramatta Local Strategic Planning Statement	Consistent	The Parramatta Local Strategic Planning Statement (LSPS) was prepared to guide Council's land use planning for the next 20 years, implements priorities from Council adopted strategies and gives effect to State Government strategic directions for the LGA. The LSPS does not identify any specific strategic vision for the site. Notwithstanding, the proposal aligns with the planning priorities of the LSPS in that it will: • utilise best practice design and construction methodology in flood prone areas to reduce risk to persons from flooding. • provide necessary infrastructure to support the needs of the current and future population. • promote connectivity and accessibility by providing critical health infrastructure that is close to residential development and public transport services. • encourage walking and cycling through the provision of bicycle racks, end of trip facilities and through existing pedestrian and bicycle infrastructure within the vicinity of the site. • provide an attractive, sustainable, well-designed and efficient hospital campus. • protect and enhance the Connection to Country through inclusion of several culturally significant locations on the site. • stimulate job growth through the provision of 606 jobs during construction and 291 additional jobs during operation.
2022 Flood Inquiry	Consistent	In March 2022, the NSW Government commissioned an independent expert inquiry into the preparation for, causes of, response to and recovery from the 2022 catastrophic flood event

Strategy, plan or policy	Consistency	Comments
		across the state of NSW. The Inquiry makes 28 recommendations for change, which are intended to provide practical, proactive and sustained mechanisms to ensure readiness for and resilience to flooding. In particular, Recommendation 28 aims to *"minimise disruption to medical services, aged care services and the police, Government ensure hospitals, medical centres, nursing homes, aged care facilities and police stations are situated above the probable maximum flood level".* In relation to Recommendation 28, Government did not respond directly to the recommendation that hospitals be located above the PMF, but responded that it "*will ensure future essential services infrastructure development occurs above the flood planning level, where appropriate. Consideration will be given to how to encourage private sector essential infrastructure developers to take the same approach.* " The Applicant has considered these recommendations and Government's response and has incorporated them into the location of clinical services into the building design and its flood free link to the CASB. Further detail is provided in **Section 6.4.**
Shelter in Place Guideline	Generally consistent	The Department is preparing a Shelter-In-Place Guideline which, once finalised, will provide clear and consistent guidance for the community, councils, and consent authorities about when shelter-in-place can be considered as an alternative to evacuation off-site/out of the floodplain. The public exhibition of the draft Guideline ended on 28 February 2023. The draft Guideline outlines that evacuation prior to major flood events is the preferred response to flooding emergencies, but is not always possible in all locations, especially during flash flooding. At the time of the writing of this report, the draft Guideline has completed its exhibition and is still under consideration. The Department has had regard to the draft Guideline in its assessment of the proposal and matters of public interest with respect to flooding and managing risk to hospital occupants, in **Section 6.4**.

Strategy, plan or policy	Consistency	Comments
		Given its status, only limited statutory weight can be given to the draft Guideline.
NSW Flood Risk Management Manual 2023	Generally consistent	The policy and manual for the management of flood liable land was released by the Department in July 2023. The manual acknowledges that flooding results in significant risk to many communities across NSW. This policy as outlined in this document sets the direction for flood risk management in NSW. This manual (including the policy) replaces the Floodplain Development Manual (2005) as the NSW Government's manual relating to the management of flood liable land in accordance with section 733 of the *Local Government Act 1993*. This provides Councils, statutory authorities, and State agencies and their staff, with indemnity for decisions they make and information they provide in accordance with the manual. The Department notes that this policy was not in force when the application was lodged in May 2023 and does not apply to applications lodged, but not determined, when the policy came into force on 10 November 2023. The Applicant's Flood Impact Assessment (FIA) and Site Flood Emergency Response Plan (SFERP) have had regard to the NSW Flood Manual Guideline which was in force at the time of lodgement. Notwithstanding, the Department has had regard to the following matters under the new Manual. *Flood risk* The manual adopts a risk-based approach and recommends that the Applicant and/or consent authorities consider the risk associated with a full range of flood behaviours. Additionally, the manual also requires that the existing risk, future risk, and the continuing risk after implementing management/mitigation measures be considered prior to progressing with a development. It then recommends that the consequences of the floods be assessed, including: • between floods of different magnitudes • due to differences in exposure of the community to flooding • due to differences in flood constraints

Strategy, plan or policy	Consistency	Comments
		• how flooding may impact on the community due to the differences in vulnerability of people, the community and the built environment to flooding. In **Section** Error! Reference source not found. the Department considered the application in detail having regard to flood risks in arrange of scenarios. The Department also considered comments provided by EHG and SES regarding flood impacts and management. The Department's assessment concludes that the site is subject to flood risks in various flood events. The proposed development (subject to conditions) on the site would have sufficient mitigation/management measures to address risks to vulnerable occupants, those responsible for their care as well as the broader community who may visit the site from time to time. The Department is satisfied that the proposed development in its current form minimises and appropriately manages risk to all occupants. Consequently, based on the flood related risks, the Department supports this application.

4 Statutory context

4.1 Permissibility and assessment pathway

Details of the legal pathway under which consent is sought and the permissibility of the project are provided in **Table 3** below.

Table 3 | Permissibility and assessment pathway

Consideration	Description
Assessment pathway	State significant development • The project is declared SSD under section 4.36 of the EP&A Act as it satisfies the criteria under section 2.6(1) of the Planning Systems SEPP, pursuant to clause 14 of Schedule 1, as a development is for the purposes of a hospital with a CIV greater than $30 million. The proposed development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and the proposed development is specified in section 14 of Schedule 1 of the Planning Systems SEPP.
Consent authority/Approval authority	Minister for Planning and Public Spaces • The Minister is the consent authority under section 4.5(a) of the EP&A Act.
Decision-maker	Delegate position • In accordance with the Minister for Planning delegation to determine applications, signed on 9 March 2022, the Director, Social and Infrastructure Assessments may determine the application as: – the relevant Council has not made an objection to the application. – there are less than 15 public submissions objecting to the application. – a political disclosure statement has not been made for the application.

Consideration	Description
Permissibility	**Permissible with consent** • Parramatta Local Environmental Plan 2023 (PLEP) identifies the site as being located within the SP2 Infrastructure (Health Services Facility) zone. Development for the purpose shown on the SP2 Infrastructure Land Zoning Map (such as a health services facility – which includes hospitals) is permitted with consent under PLEP 2023. • the proposed development is permissible with consent under PLEP 2023.

4.2 Other approvals and authorisations

The project will not require an environment protection licence issued by the NSW Environment Protection Authority under section 42 of the *Protection of the Environment Operations Act 1997*.

Under section 4.41 of the EP&A Act, several other authorisations required under other Acts are not required for SSD. This is because all relevant issues are considered during the assessment of the SSD application.

Under section 4.42 of the EP&A Act, certain approvals cannot be refused if they are necessary to carry out the SSD (e.g. approvals for any road works under the *Roads Act 1993*). These authorisations must be substantially consistent with any SSD development consent approval for the project.

The Department has consulted with and considered the advice of the relevant government agencies responsible for these other authorisations in its assessment of the project (see **Section 5** and **Section 6**). Suitable conditions have been included in the recommended conditions of consent (see **Appendix C**).

4.3 Planning Secretary's environmental assessment requirements

The Department's review determined that the EIS addresses each matter set out in the Planning Secretary's environmental assessment requirements (SEARs) issued on 6 June 2022 and is sufficient to enable an adequate consideration and assessment of the project for determination purposes.

4.4 Mandatory matters for consideration

4.4.1 Matters of consideration required by the EP&A Act

Section 4.15 of the EP&A Act sets out matters to be considered by a consent authority when determining a development application. The Department's consideration of these matters is shown in **Table 4** below.

Table 4 | Matters for consideration

Matter for consideration	Department's assessment
Environmental planning instruments, proposed instruments, development control plans & planning agreements	The Department's consideration of the relevant EPIs, proposed instruments, and DCPs is provided in **0.**
EP&A Regulation	The application satisfactorily meets the relevant requirements of the EP&A Regulation. Further discussion is provided in **0.**
Likely impacts	Likely impacts would be appropriately mitigated or conditioned (See **Section 6** – Assessment)
Suitability of the site	The site is suitable for the development as discussed in **Section 1.3** - Project background, **Section 3** - Strategic Context and **Section 6** - Assessment
Public submissions	Refer to **Section 5** - Engagement & **Section 6** - Assessment
Public interest	Refer to **Section 5** - Engagement, **Section 6** - Assessment & **Section 7** - Evaluation

4.4.2 Objects of the EP&A Act

In determining the application, the consent authority should consider whether the project is consistent with the relevant objects of the EP&A Act (s 1.3) including the principles of ecologically sustainable development. Consideration of those factors is described in **0**.

As a result of the analyses in **0**, the Department is satisfied that the development is consistent with the objectives of the EP&A Act and the principles of ecologically sustainable development (ESD).

4.4.3 Biodiversity development assessment report

Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) requires all SSD applications to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the project is not likely to have any significant impact on biodiversity values (as identified in the BC Act and in the *Biodiversity Conservation Regulation 2017*.

A BDAR waiver request was submitted to the Department on 30 August 2022. The Environment Agency Head and the Director Social Infrastructure Assessments as delegate of the Planning Secretary, both determined that the development is not likely to have any significant impact on biodiversity values. A BDAR waiver was granted on 16 November 2022.

Subsequent to the Applicant's plan amendments which would result in the removal of 15 previously unaccounted native trees (*Livistona australis* trees (Cabbage Tree Palm)), an updated BDAR waiver request was submitted by the Applicant to address the additional tree impacts. An updated BDAR waiver was granted on 12 September 2023.

5 Engagement

5.1 Exhibition of the EIS

5.1.1 Public exhibition of the EIS

After accepting the development application and EIS, the Department:

- publicly exhibited the project from 25 May 2023 until 21 June 2023 on the NSW planning portal.
- notified occupiers and landowners in the vicinity of the site about the public exhibition.
- notified and invited comment from relevant government agencies and the City of Parramatta Council (Council).

During the public exhibition period the Department undertook a site visit.

5.1.2 Summary of advice received from government agencies

The Department received advice from 10 government agencies on the EIS.

A summary of the agency advice is provided in **Table 5.** A link to the full copy of the advice is provided in **Appendix A.**

Table 5 | Summary of agency advice

Agency	Advice summary
NSW State Emergency Service (NSW SES)	NSW SES raised several concerns with the proposal and its interaction with the adjoining floodplain. The issues raised can be summarised as follows: • concerns are raised regarding the isolation of the building as a result of flooding and direct flood impacts to the building (particularly Level 0). In particular, concern is raised to the "five fingers" elements of the building as these extend further into the floodplain. • recommended longer duration storm modelling and additional consideration of the time of flood onset. • the architectural plans should be amended to take into consideration flood impacts on the wings of the proposed building. • recommend that the proposed pharmacy be relocated above the Probable Maximum Flood (PMF) level to reduce the burden on evacuation during a flood event. • the proposed development seeks to rely upon a 'shelter-in-place' strategy during a flood event, which is not an NSW SES endorsed strategy. Recommend that evacuation be considered as a flood management strategy. • any additional parking should be above ground level to facilitate safe and effective vehicular evacuation.
Civil Aviation Safety Authority (CASA)	CASA advised that aviation safety would not be compromised and raised no concerns with the proposed development. CASA has recommended that a condition be imposed on any potential consent requiring the installation of appropriate obstacle lighting and markings on construction cranes.
DPE Water	DPE Water reviewed the development application and raise no concerns with the proposed development, subject to the imposition of recommended conditions relating to groundwater take, licencing and dewatering.

Agency	Advice summary
Environment and Heritage Group (EHG)	EHG raised concerns with the proposed development, generally on flooding grounds. The issues raised can be summarised as follows: • recommend use of the flood model from the draft Parramatta River Flood Study for analysis due to its recency and accuracy. The model used by the Applicant in the EIS is considered to be less accurate. • a portion of the proposed IMHC building footprint would be located within the PMF extent. • assumptions for tailwater conditions and coincidence of events need justification in the Flood Report when modelling overland flow. • the proposal should be amended to ensure avoidance of adverse flood impacts on the adjoining childcare building during a 10% AEP flood event. • the proposal in its current form causes flood impacts at the Redbank House and school during a 1% AEP flood event and requires mitigation. • hazardous materials within the pharmacy should be protected from flooding and located above the PMF level. • the SFERP needs significant improvements to address emergency response adequately. • the proposed removal of a *Livistona Australis* (cabbage-tree palm) for the CASB link bridge was not assessed in the Biodiversity Development Assessment Waiver Request Report, thus requiring an amended BDAR waiver request.
Transport for NSW (TfNSW)	TfNSW requested the provision of the following additional information: • appropriate SIDRA NETWORK modelling is requested, particularly for the AM post-development scenario. • amendments to the Traffic Report are required to address on-site car parking, specifically whether the approved Multi-storey Carpark (MSCP) (approved under SSD-1043896) would be operational at the time of completion of the proposed IMHC. Also request that an alternative option for offsite car parking be provided in the instance that the MSCP is not constructed in time. • with regard to traffic generation, information should be provided on whether the existing mental health building will be repurposed or remain operational post IMHC, for the use of other services. • recommended conditions requiring that a detailed Construction Traffic and Pedestrian Management Plan (CTMP) be prepared prior to the commencement of construction works and the preparation of a detailed Operational Traffic Management Plan (OTMP) and Green Travel Plan (GTP) prior to occupancy.

Agency	Advice summary
Endeavour Energy	No concerns are raised to the proposed development subject to the imposition of standard conditions.
Sydney Water	Supports the proposal in its current form and notes that: • the site is located within Mt Dorothy water supply zone and the network would require augmentation to service the proposed development. • wastewater for the development would be serviced via private sewer and connected to the Sydney water DN750 main and SP0103 system. The main and system have capacity to service the development. Sydney Water has recommended several standard conditions, including the issuing of a Section 73 Compliance Certificate, trade wastewater, backflow prevention water efficiency and contingency plan requirements.

The following agencies raised no concerns or provided no comment:

- NSW Fire & Rescue (FRNSW).
- DPE Crown Lands.
- Heritage NSW (Aboriginal Cultural Heritage).

5.1.3 Summary of Council submission

Council provided comments on the project. A summary of the issues raised by Council is provided in **Table 6** below and a link to all submissions in full is provided in **Appendix A.**

Table 6 | Summary of issues raised by Council

Council	Submission summary
City of Parramatta	**Trees and Landscaping** • concerns are raised about the design not considering the existing landscape, especially trees. • 100 trees would be removed, including 30 mature trees. The Arboricultural Impact Assessment (AIA) excluded 43 trees from assessment which were assessed separately under a Review of Environmental Factors (REF). The AIA be amended to reflect this.

Council	Submission summary
	• recommend the retention of additional significant trees (particularly tree Nos. 10, 40, 49, 50, 52 and 53) and that the number of replacement trees is equal or greater than the 100 trees to be removed. • amendments to the submitted AIA are requested regarding appropriate tree planting locations and the inclusion of other relevant technical details in the report.
	Traffic and Transport • minimal traffic impact is anticipated as a result of the proposed development. • the Traffic Report is to be amended to elaborate on how the 349 staff parking spaces and 27 short stay spaces were found to be an acceptable number to service the IMHC. • recommend that the plans be amended to include standard driveways with layback for entrances and exits, along with *Australian Standard* (*AS 1742.10 and AS 1158.4*) compliant pedestrian crossings. • a sight lines assessment for the proposed pedestrian refuge island is requested to be provided. • suggest that the shared path be continued along Dragonfly Drive and Institute Road into Redbank Road along the project frontage. • the proposed crossing points along Redbank Road should be replaced with zebra crossings, green lanes or an alternative that gives pedestrians and cyclists priority over traffic.
	Urban Design • general support is provided for the peninsular wing design of the IMHC building but recommend a reduction in the height of the wings for improved solar access and aesthetics. • recommend the relocation of the fire stairs away from the end of each wing peninsula to ensure views to Toongabbie Creek are optimised. • the façade should adopt a complementary design approach for the base of the building and the upper levels, with masonry elements for the base and softer design elements at the upper levels.

Council	Submission summary
	Flooding • it is acknowledged that the application has reasonably addressed the applicable in-force NSW and Council LEP and DCP flooding requirements. • recommend that conditions be imposed on any future consent requiring compliance with the flood assessment, SFERP, integrated water management plan, and for the preparation of a Construction Environmental Management System and Plan (CEMP).

5.1.4 Summary of public submissions

The Department received two submissions[1] during the public exhibition period of the EIS. The two submissions provided general comment on the project. A link to all submissions in full is provided in **Appendix A.**

The two submissions expressed general support for the proposal and identified mental health as an important societal issue. The submissions also raised concerns with the capacity of the existing carpark within the hospital grounds, environmental sustainability, building aesthetics and a lack of landscaping integration within the building.

5.2 Response to submissions (RtS)

Following the public exhibition period, the Department asked the Applicant to respond to the issues raised in submissions and the advice received from government agencies. The Department also identified additional matters required to be addressed in the RtS, including:

- detailing the number of new trees (including a planting schedule) and demonstrating how the new planting and canopy coverage would address the cumulative impact of recent tree removal associated with the site demolition (separately approved).
- provision of a copy of the parking demand study referenced in the TIA.
- amendments to the Social Impact Assessment (SIA) to:
  - identify the social locality.

[1] Each petition or submission that contains the same or substantially the same text is counted as one submission in accordance with section 2.7(6) of the Planning System SEPP.

  - demonstrate that the primary data provides a comprehensive understanding of the social impacts on those most affected and that the assessment or mitigations address those most affected.
  - ensure mitigation measures are better aligned with anticipated construction and operational impacts.
  - provide a monitoring and management framework that is consistent with the Department's SIA guidelines.
- updates to the Noise and Vibration Impact Assessment to indicate the predicted construction noise levels at the nearest sensitive uses (childcare and school), including any reduction in predicted noise levels from the implementation of mitigation measures.

The Applicant provided a submissions report to the Department on 30 August 2023 (see **Appendix A**). The Department published the submissions report on the NSW planning portal and forwarded the submissions report to relevant government agencies and Council for comment on 31 August 2023.

5.2.1 Council and agency advice on the RtS

Council and three government agencies commented on the RtS. A summary of their advice is provided in **Table 7** below.

Table 7 | Summary of Council and agency advice on the RtS.

Council/agency	Summary of advice
City of Parramatta Council	Council's comments in relation to the RtS is summarised as follows: • Council emphasised the importance of retaining and protecting trees 49, 52, and 53. • the arborist report lacks detailed discussion or alternative options for tree retention. • Council requests that all trees proposed to be removed should be replaced with suitable species on-site. Advanced replacement tree stock is preferred by Council. • Council acknowledges improvements in the car parking information provided by the Applicant. • the proposed access points for the loading dock and carpark are deemed poor for pedestrian safety, and the absence of a raised pedestrian crossing/driveway entry treatment is noted as a concern. • clarification is sought regarding the pedestrian refuge island on Redbank Road and the potential submission of a sight line assessment.

Council/agency	Summary of advice
	• Council has requested confirmation of the future development potential for extending the shared path. • the height of the proposed peninsular wings is recommended to be reduced to enhance solar access, amenity and 'openness' and to be in accordance with 'Connection with Country' design principles. • Council suggests a more sympathetic façade treatment for the fire stairs. In addition, Council recommends an alternative treatment and composition of the façade facing Toongabbie Creek, reflecting the building's function as a place of healing.
NSW SES	The NSW SES provided comments in relation to the RtS, summarised as follows: • recommend updating the Flood Emergency Management Plan, alternatively termed SFERP, trigger due to the absence of flood warnings from NSW SES and Bureau of Meteorology. • cautioned against relying on a private warning system for flood risk management but acknowledge its benefits for alerting the community. • suggest relocating the proposed pharmacy from level 0, aligning with concerns raised by DPE EHG. • recommend relocating the generator fuel tank above the PMF to reduce floodwater contamination risk. • recommend finer resolution flood modelling for smaller columns in the H5 flood hazard zone to assess emergency management risks. • the FEMP currently contradicts the *Draft Shelter-in-place Guideline (2022)* by claiming all points are met. NSW SES state that this is untrue as the site faces a H5 flood hazard. • mention risks to various facility services during PMF flooding, including power, heating/cooling, and medical gas. NSW SES request that this is addressed. • raise concerns about basement carparks' flood risks and the importance of a potential basement design changes to prevent flooding. • mention frequent flooding of local roads and carparks, affecting access and egress.

Council/agency	Summary of advice
EHG	EHG's comments in relation to the RtS can be summarised as follows: • Council exhibited a new peer-reviewed flood study on 18 September 2023. EHG recommends the Applicant consider the new Council flood model for setting floor levels due to its accuracy. • EHG suggests using a 5% AEP tailwater level or preferably the 1% AEP tailwater level per Council's latest modelling for the overland flow assessment. • EHG agrees with the Applicant 's RtS response that small structures such as columns may be omitted from flood models if there is no cumulative impact. • flood impacts to the childcare and Redbank House and School resulting from the overland PMF is deemed minimal. • consideration is recommended for raising power outlets, generators, heating, cooling services, and extending water supply in a PMF. • future design stages should consider flood-related structural damage risks. • consideration should be given to modelling the PMF assuming a blockage. • further consideration should be given to extending the water supply in a PMF event beyond 3 hours due to the risk of extended periods of external service interruption. Similarly, further consideration could be given to raising the back-up generator fuel tank and pumps above the PMF level. • the revised SFERP is supported.
TfNSW	TfNSW raised no concerns to the nett traffic generated during operation of the proposed IMHC and is satisfied that it is unlikely to adversely affect the state classified road network. TfNSW have recommended conditions of consent requiring the submission of a Green Travel Plan (GTP) prior to commencement of occupation.

5.3 Request for further information

On 21 and 22 September 2023 the Department requested the Applicant to provide further information to address the issues raised in the Council and agency advice on the RtS, relating to tree preservation and replacement stock, urban design, civil works, flood evacuation; and flood modelling and risks.

On 11 October 2023, the Applicant submitted a response (RFI response) to the Department, comprising:

- amended landscape plans and landscape report to address Council's tree replacement comments.
- additional and amended flood information including updated flood modelling, mapping and an amended FIA to address concerns raised by EHG and SES.
- amended Site Flood Emergency Response Plan addressing comments provided by SES.
- a tabulated response to the comments raised by the Department, SES, EHG and Council.

6 Assessment

The Department has considered the Applicant's EIS, issues raised in submissions and agency advice, the RtS and supplementary information in its assessment of the proposal. The Department considers the key issues associated with the proposal are:

- traffic, parking and access.
- noise and vibration.
- built form, urban design and landscaping.
- flooding.

6.1 Traffic, parking and access

The application has been supported by a Transport Impact Assessment (TIA) and a preliminary Construction Traffic Management Plan (CTMP).

6.1.1 Operational traffic

Traffic generation rates

The submitted TIA has calculated traffic generation rates for the proposed IMHC development. The TIA estimates that IMHC staff vehicle movements to and from Car Park 23 would generate:

- 157 vehicle trips in the AM peak period.
- 120 vehicle trips in the PM peak period.

In terms of visitor vehicle movements, the short stay parking area (including drop-off / pick-up) is expected to generate up to 10 vehicle movements during the road network peak hours.

Accordingly, the IMHC is expected to generate approximately 167 and 129 vehicle trips (staff and visitors) respectively in the AM and PM peak periods.

Traffic distribution

The submitted TIA has calculated the variance to traffic volumes surrounding the site resulting from the proposed IMHC, in combination with existing hospital buildings and buildings currently under construction. **Table 7** below summarises these variances for the three main intersections in the vicinity of the development site.

Table 7 Variance to traffic volumes surrounding site (Source: TIA)

Intersection	AM Peak	PM Peak
Briens Rd / Redbank Rd	+ 5 vehicles	+ 5 vehicles
Darcy Rd / Institute Rd / Mons Rd	+ 107 vehicles	+ 83 vehicles
Darcy Rd / Hawkesbury Rd	- 9 vehicles	- 7 vehicles

As shown, the development would result in:

- a minor uplift in vehicular traffic at the Briens Road / Redbank Road intersection, given the vehicles from the Cumberland West campus currently use this intersection with access provided via Labyrinth Way.
- a reduction to traffic at the Darcy Road / Hawkesbury Road intersection.
- an increase to traffic at the Darcy Road / Institute Road / Mons Road intersection, given this intersection provides a key link to IMHC staff carpark.

Traffic impacts

Based on the predicted traffic generation, the TIA includes a SIDRA analysis of key intersections for the 2030 scenario, comparing 'with' and 'without' development scenarios. The intersections are shown in Figure 7, and SIDRA modelling results in Table 8.

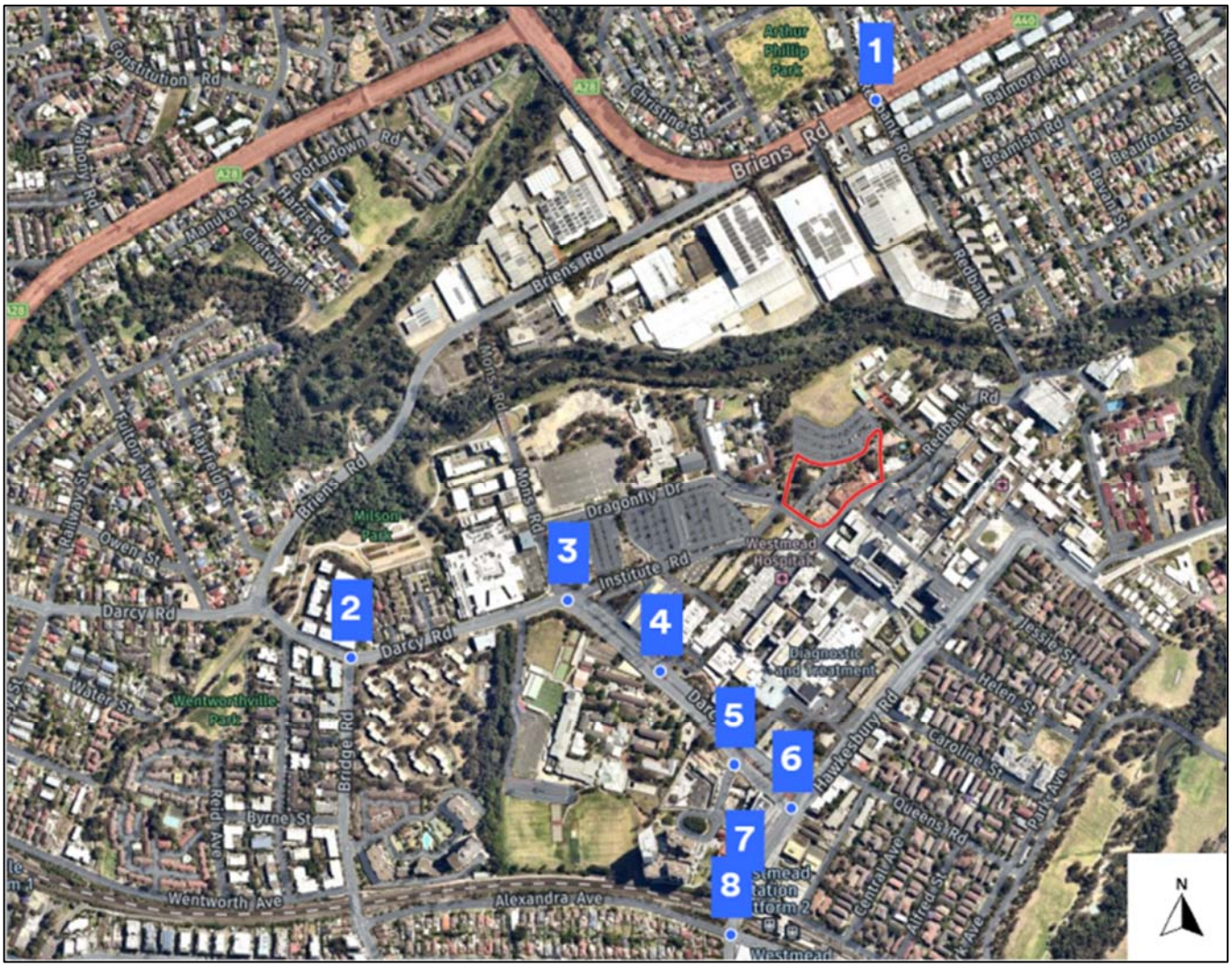

Figure 7 | Intersections assessed in the SIDRA analysis (source: Nearmap)

Table 8 | Intersection performance, Level of Service (LoS) (Source: TIA)

			Without development		With development	
Intersection No.	Intersection	Peak	Average delay (sec)	Level of service (LoS)	Average delay (sec)	Level of service (LoS)
1	Briens Rd/ Redbank Rd	AM	55	D	54	D
		PM	31	C	31	C
2	Bridge Rd/ Darcy Rd	AM	105	F	115	F
		PM	31	C	32	C
3	Darcy Rd/Institute Rd/ Mons Rd	AM	38	C	43	D
		PM	419	F	412	F
4		AM	10	A	10	A

			Without development		With development	
	Dental Hospital/ Marist High School/ Darcy Rd	PM	5	A	4	A
5	Hospital Access/ WSU/ Darcy Rd	AM	13	A	13	A
		PM	215	F	208	F
6	Darcy Rd/ Hawkesbury Rd	AM	31	C	30	C
		PM	46	D	52	D
7	Railway Pde/ Hawkesbury Rd	AM	15	B	13	A
		PM	30	C	28	B
8	Alexandra Ave/ Hawkesbury Rd	AM	159	F	118	F
		PM	37	C	40	C

Table 8 indicates that following development of the IMHC, the surrounding intersections are expected to continue operating with a similar level of service to that expected under the without development scenario, with an average reduction in delay of four seconds and one second respectively in the AM and PM peak periods.

Of note, the Darcy Road / Mons Road / Institute Road intersection (Intersection No. 3) is expected to operate with a similar level of service to that expected under the without development scenario, with an increase to average delays of around four seconds in the AM peak period and a reduction of seven seconds in the PM peak period. During the PM peak, 55 less vehicles (10 per cent of total vehicles) are expected to approach the Hawkesbury Road / Darcy Road intersection (Intersection No. 6) east approach post development due to the decommissioning of the Cumberland West campus, improving performance along this corridor and contributing to the improved performance at Darcy Road / Mons Road / Institute Road intersection (Intersection No. 3).

The Redbank Road / Briens Road intersection (Intersection No. 1) is expected to operate with a similar level of service to that expected under the without development condition, with a minor change to average delays including a reduction of one second and increase of one second respectively, in the AM and PM peak periods.

The Department acknowledges that four intersections would operate at a 'LoS F' in the 'with development' scenario, namely intersection Nos. 2 (AM), 3 (PM), 5 (PM), 8 (AM). Notwithstanding, it is noted that the abovementioned intersections would also operate at a 'LoS F' in the 'without development' scenario, with intersection Nos. 3, 5 and 8 all expected to experience improved performance by 2030. Improved network performance in the vicinity can be attributed to the implementation of the Department's Westmead Place-based Transport Strategy, which includes

initiatives focusing on supporting non-car based travel mode share, provision of additional bus services to key staff / worker locations, trialling night time on demand transport, as well as improvements to the Parramatta Outer Ring Road and upgrades at the Darcy Road / Bridge Road intersection, among others.

As such, the submitted TIA has forecast that the IMHC development is expected to have a minor impact to intersection performance in the surrounding road network and has not recommended any intersection improvements or other traffic mitigation measures. Council and TfNSW have not raised any concerns with the traffic generated by the proposed development and impacts to intersection performance in the vicinity.

The Department concurs with the findings of the TIA and considers the proposed development would not result in unacceptable traffic impacts on the local road network.

6.1.2 Construction traffic

The submitted preliminary Construction Traffic Management Plan (CTMP) indicates that traffic generated by the proposed development would comprise light vehicles (vans, utes etc.) associated with construction workers and smaller deliveries, together with heavy vehicles for the delivery and removal of materials, including plant and equipment (vehicles up to 19m semi-trailers).

The CTMP estimates that up to 120 trucks per day or 15 trucks per hour would access the site during peak activities. The CTMP proposes that all construction vehicles would be wholly contained within the subject site and that construction vehicle site access will be via Dragonfly Drive (via Mons Road/ Darcy Road).

The proposed construction vehicle access routes are shown in **Figure 8** and includes an alternate access route from Briens Road to Redbank Road. These are consistent with the construction vehicle routes used for the CASB construction. The CTMP stipulates that the alternate route would only be utilised upon consultation with, and the approval of, relevant stakeholders.

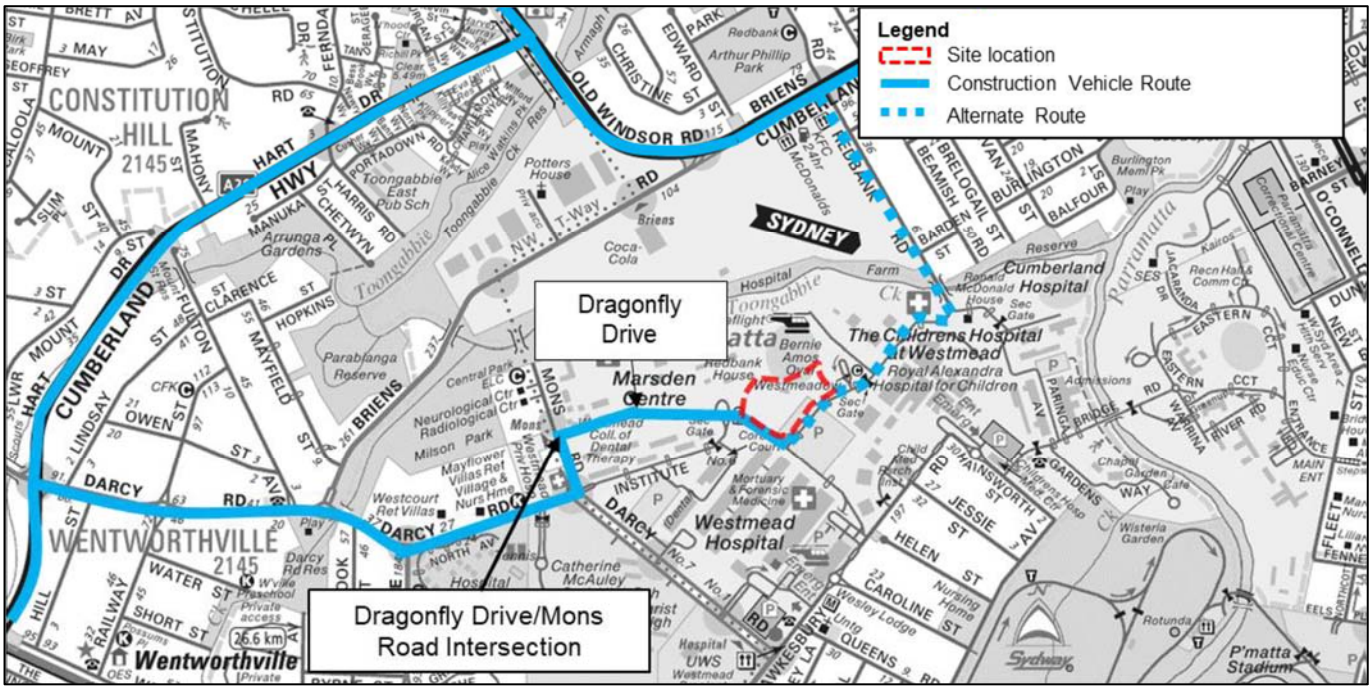

Figure 8 | Construction vehicle routes (Source: CTMP)

Based on the above information, the Department is satisfied that the construction traffic expected from the proposal poses minimal impacts and will be managed through recommended conditions, requiring appropriate construction worker modes of transport and the implementation of a final CTMP during construction.

6.1.3 Parking

On-site parking

Significant car parking facilities are provided across the hospital campus, servicing the various components of the Westmead Health Precinct. Existing car parking is distributed across the precinct to support separate access arrangements for staff and visitors, as shown in **Figure 9**.

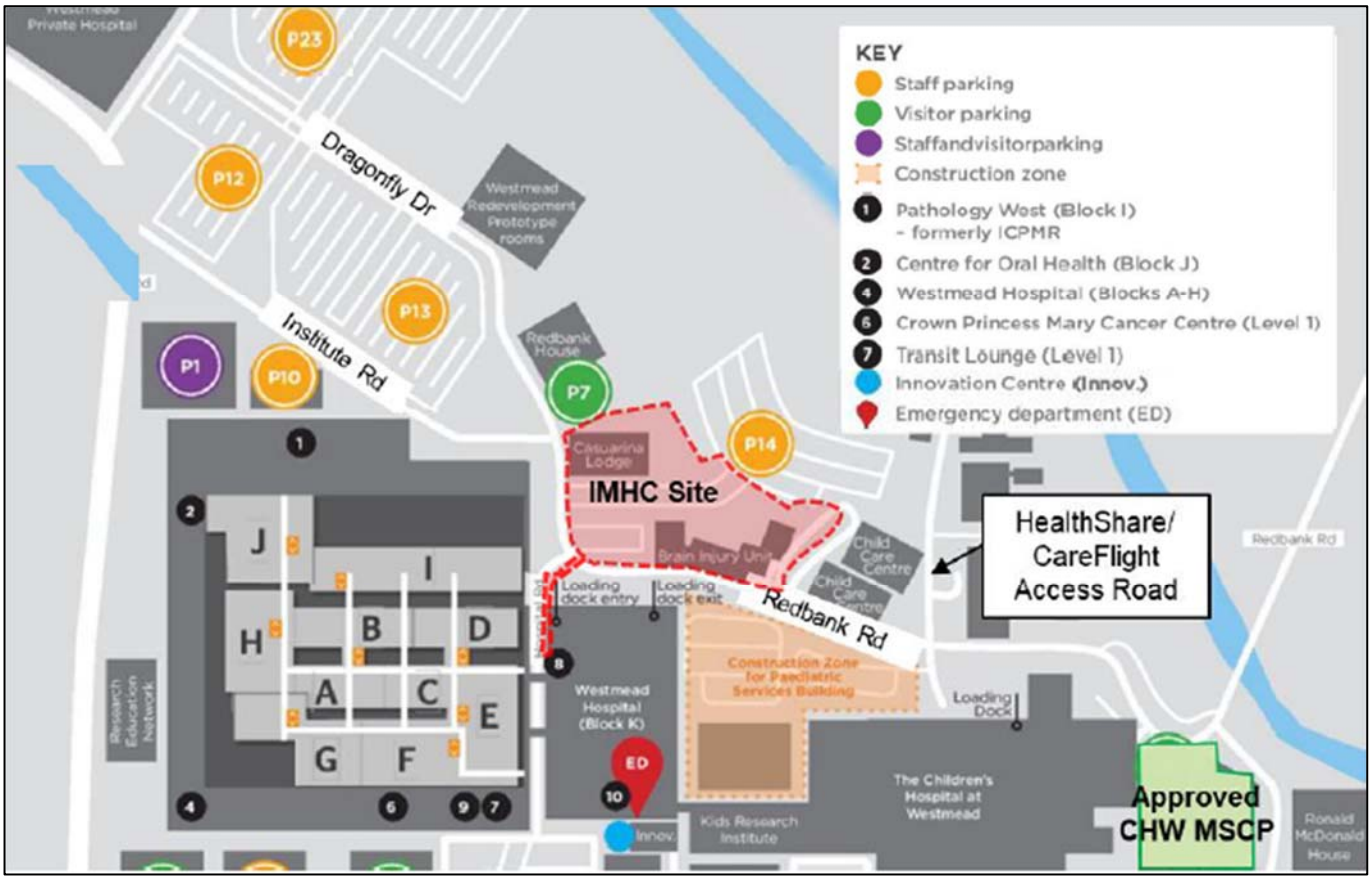

Figure 9 | Staff and visitor parking within campus (Source: TIA)

A parking demand study was prepared by the Applicant to understand the parking requirements of the IMHC, resulting in the following car parking demand:

- 349 staff spaces.
- a minimum of 27 short stay visitor parking spaces.

The application proposes the construction of 28 additional car parking spaces within the area of the existing childcare carpark (i.e. IMHC short-stay carpark) to the eastern side of the IMHC for use by IMHC visitors only. The remaining 27 car parking spaces within this carpark would be allocated to the existing childcare centre. The existing childcare carpark and the proposed childcare / IMHC visitor short-stay carpark is shown side-by-side in **Figure 10** below.

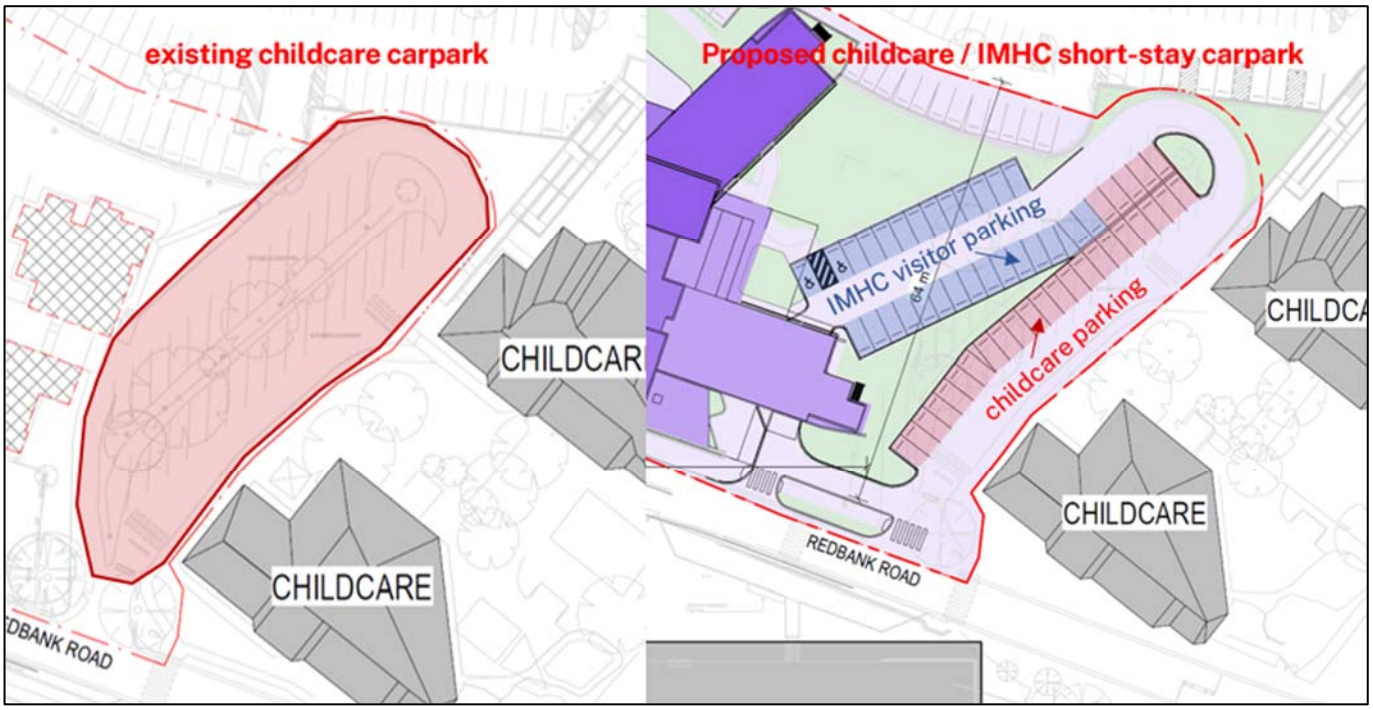

Figure 10 | Comparison of existing childcare carpark and proposed reconfigured childcare / IMHC visitor short-stay carpark (base source: Architectural Plans)

The Department is satisfied that the short-stay carpark would provide convenient and accessible parking for IMHC visitors, and the Department notes that the proposal complies with the numeric visitor car parking requirements of the development. A condition has been recommended requiring that a minimum of 27 short-stay visitor car parking spaces be provided adjacent to the IMHC building.

The application does not propose the construction of additional car parking facilities to accommodate IMHC staff, but it is proposed that 349 car parking spaces be allocated to IMHC staff within existing Car Park P23 (which has total capacity of 479 spaces). The submitted TIA indicates that this allocation strategy is possible due to P23 becoming largely vacant following the opening of the new Childrens Hospital at Westmead (CHW) Multi-Storey Carpark (MSCP), with all CHW staff currently parking in P23 to relocate into the new MSCP. As P23 will no longer be required to accommodate CHW parking demands, all parking demand generated by IMHC can be accommodated in this carpark. **Table 9** below summarises the existing and proposed car park occupancy and allocations for the campus:

Table 9 | Carpark occupancy and supply (Source: TIA)

Scenario	Carpark	Supply	Occupancy	Unallocated Spaces	User
Existing	Childcare	27	27	0	Childcare
	P23	479	479	0	CHW staff
	P14	422	422	0	CHW staff

Scenario	Carpark	Supply	Occupancy	Unallocated Spaces	User
	CHW MSCP	0	N/A	N/A	N/A
Future (Prior to IMHC)	Childcare	27	27	0	childcare
	P23	479	0	479	N/A
	P14	422	422	0	CHW staff
	CHW MSCP	996	712 (Day 1)	87 spaces (remaining spaces are growth associated with approved PSB)	CHW staff
Future (Post IMHC)	Childcare / IMHC short-stay	55	55	0	Childcare
	P23	479	360	119	**349 IMHC staff** and 11 BIRS staff
	P14	357	357	0	CHW and 22 HealthShare / CareFlight staff
	CHW MSCP	996	799 (Day 1)	Nil (remaining spaces are growth associated with approved PSB)	CHW staff, including 87 relocated from P14

As shown in **Table 9**, P23 would have capacity to accommodate IMHC staff parking demand and is expected to operate with spare capacity (119 spaces) following completion of the IMHC. Further, all parking displaced from P14 can be sufficiently accommodated within the approved CHW MSCP.

Subsequent to the submission of revised and additional information as part of the RtS package, Council and TfNSW raised no issues with the assumptions used regarding the calculations for car parking demand by the proposal or the provision of additional car parking for the future growth of the hospital.

Given the above, the Department is satisfied that adequate parking would be available to the IMHC development within the proposed short-stay carpark and the existing Car Park P23, and the proposal would not have a detrimental impact on the locality in terms of any demand for on-street car parking spaces.

Parking for construction workers

The submitted CTMP anticipates that there will be up to a maximum of approximately 200 workers on-site at any given time during main construction activities and recommends that the existing contractor parking area, shown in **Figure 11**, be utilised for construction worker parking. The CTMP

proposes that workers only be permitted to park within the designated area within the Westmead Health Precinct.

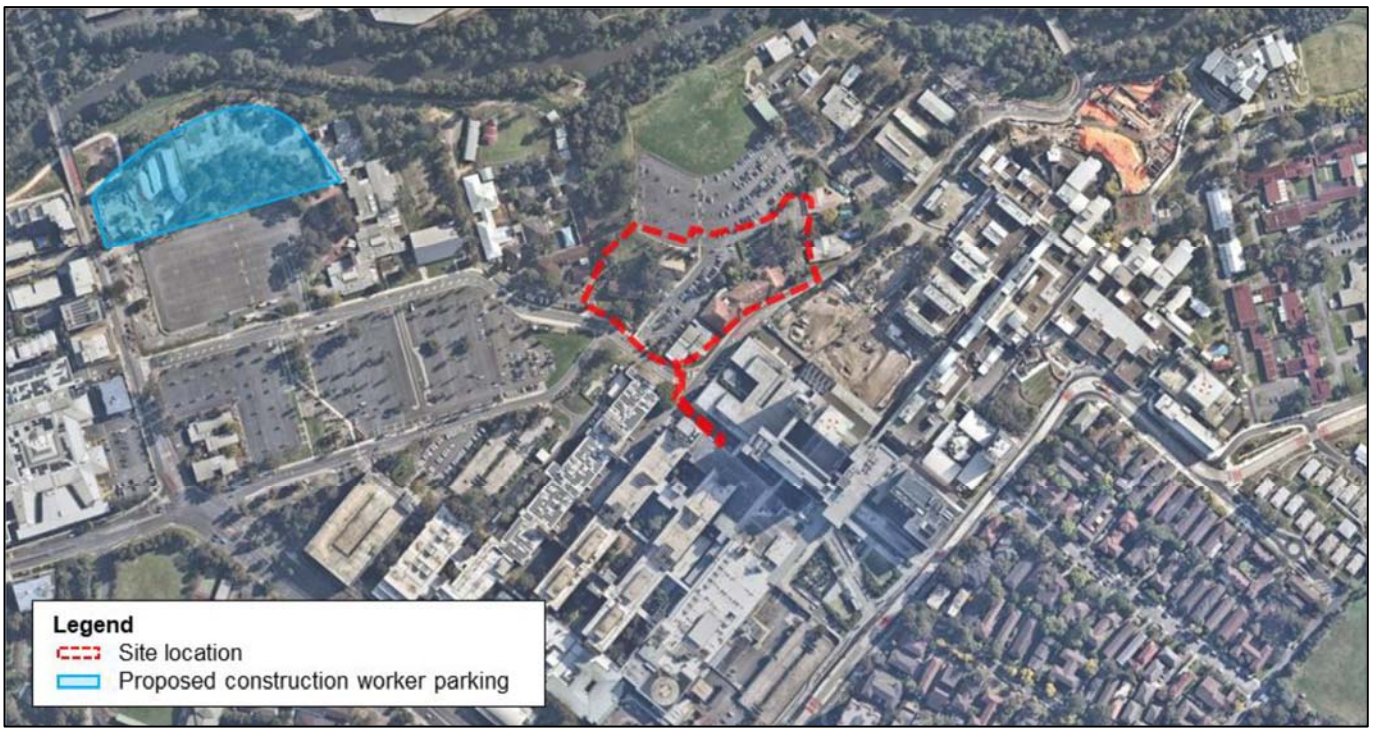

Figure 11 | Construction worker parking (Source: CTMP)

The Department notes that the informal construction worker parking area shown in **Figure 11** has been utilised by construction workers during previous projects on the campus and is setback at a significant distance from customer-facing areas within the hospital grounds. Accordingly, the Department considers it appropriate that the designated construction worker parking area be maintained for use during the IMHC project by construction workers.

Parking design and layout

The TIA has undertaken an assessment of the design of the proposed short-stay carpark, loading dock, access and pick-up / drop-off bays. The assessment has considered bay and aisle widths, turning areas, circulation roads and ramps, grades, height clearances, pick-up/ set-down areas, accessible parking, motorcycle parking, pedestrian circulation and wayfinding and boom gate locations.

The TIA identifies that the design of the abovementioned elements is expected to operate satisfactorily and is generally in accordance with the relevant standards and guidelines, namely:

- Australian Standard for Off Street Car Parking (AS/NZS2890.1:2004, AS/NZS2890.2:2018 and AS/NZS2890.6:2009).

- Sustainable Hospital Car Park Investment Program Volume 3, Hospital Car Park Design Guidelines V1.2, Health Infrastructure, May 2019.

The Department has recommended appropriate conditions requiring the design of the proposed short-stay car park, loading dock, access and pick-up / drop-off bays be in keeping with the above Australian Standards and guidelines.

6.1.4 Access, servicing and pedestrian safety

Access

The Westmead Health Precinct is accessed via several key traffic routes with key access points located along Mons Road, Hawkesbury Road and Redbank Road.

Access to the proposed short-stay visitor parking area is proposed to be provided via Redbank Road, including access to the primary drop-off / pick up area (with two bays) and revised childcare centre parking. The Redbank Road frontage includes an urgent drop off / pick up area with capacity for three bays. Access to the on-site loading dock and secure entry would be provided via the existing Car Park 14 (P14) access road from Dragonfly Drive. Due to noise emissions from staff vehicles traveling to / from P14, the existing access road from Dragonfly Drive is proposed to be closed to staff, with modified access via the HealthShare / CareFlight access road.

A secure entry is proposed to the western frontage of the IMHC, providing direct access to Level 1. The secure entry provides one internal ambulance parking bay suitable for unloading / loading, as well as two stacked ambulance parking spaces and two stacked police / community vehicle parking spaces external to the building. A turning area is provided with intercom access to open the loading bay. All ambulances will use the turning area to access the intercom and reverse into the loading bay.

The Department raises no concerns to the proposed access arrangements and recommends the imposition of a condition requiring that operational and service vehicle access complies with Australian Standard AS 2890.

Servicing and loading and pedestrian links

A loading dock is proposed on-site, with access from the existing P14 access road from Dragonfly Drive proposed to be closed to staff and is to form a dedicated service road for the IMHC. Loading demands for the site would be accommodated within both the new loading dock, as well as the recently constructed CASB loading dock located immediately south of the site along Redbank Road. The submitted TIA estimates that the loading requirements for the IMHC would result in an increase

in loading / servicing activity of up to five vehicles during peak periods. This delivery activity would predominantly occur on weekdays between 7am and 5pm.

A two-level pedestrian link bridge is proposed above Redbank Road between CASB and the IMHC. The lower level of the bridge would provide an at-grade pedestrian connection from Hawkesbury Road / CASB main entry through to Level 2 of the IMHC. The upper level of the link bridge would facilitate the movement of patients between CASB and IMHC, and movement of goods from the CASB loading dock.

The footpath along the Redbank Road frontage is proposed to be reconstructed, connecting west to the existing Dragonfly Drive shared path and the pedestrian crossing to Hospital Boulevarde. To the east, the footpath would connect to the new IMHC eastern entry plaza and to the Redbank Road footpath adjacent to the childcare centres.

Council raised concerns with the proposed access points for the loading dock and carpark on pedestrian safety grounds. Council's comments have been summarised as follows:

- the proposed access points for the loading dock and carpark are a poor outcome from a pedestrian safety viewpoint.
- the proposed access point treatment is consistent with the existing designs of the internal roads in other sections; however, it should be noted that under current NSW legislation, cyclists are not permitted to ride across pedestrian crossings. As such, the pedestrian crossing should be retained in such a way that allows cyclists to legally cross without dismounting.
- the proposed arrangement would encourage illegal behaviour from cyclists.
- the absence of a raised pedestrian crossing/driveway entry treatment means that there is no vertical deflection to keep vehicle speeds low and there is no setback at the pedestrian crossing point. These factors ultimately increase the chance of a conflict.
- In relation to the levels (RLs) of the development, Council notes that there appears to be sufficient space to correct the levels between the driveway treatment / raised pedestrian crossing and the building. Council requests that the Department impose a condition of consent, requiring that all pedestrian crossings be installed in accordance with the relevant Australian Standards.

In response to Council's comments, the Applicant provided a written response seeking to justify the proposed access point arrangement. The justification can be summarised as follows:

- the proposal seeks to minimise pedestrian and vehicle conflict through pedestrian crossings at all vehicle access points. This includes all existing and retained pedestrian crossings, and specifically the existing pedestrian crossings at the loading dock (current P14 car park access) and the childcare centre carpark.

- the design of the proposed car parking area includes a loop road to direct all vehicles in one direction. Roads within the hospital campus have a speed limit of 20km/h.
- given the site falls away and with the need to maintain existing levels at the childcare centres as well as deal with levels at IMHC building, there is not sufficient opportunity to maintain compliant geometrical car park and access design whilst incorporating the raised crossing. The shared path ends prior to the car park access and transitions to the existing footpath adjacent to the childcare centres.
- cyclists will be required to dismount at the car park access until the shared path is continued further along Redbank Road along Redbank. As such, the zebra crossing proposed remains an appropriate treatment and is consistent with the other Dragonfly Drive access points.
- the loading dock access along Dragonfly Drive is an existing intersection, providing access to a key staff car park with notable vehicle movements per day. Post development, the loading dock access also provides access to the secure entry and therefore accommodates ambulance movements. Given this is an ambulance access route, the pedestrian crossing should not be raised as this would impact ambulance entry movements and would require re-grading of the existing car park access roadway.
- the Applicant agrees to a condition of consent which requires all new pedestrian crossings to be installed in accordance with the relevant Australian Standards.
- cyclists must dismount when crossing over a pedestrian crossing. The only way to avoid cyclists to have to dismount is by signalising the crossing which will permit cyclists to ride across it. Signalising the existing crossing is not reasonable, practical and an unnecessary expense in this case given this is a small internal roadway and not one that is intensively utilised by cyclists.

The Department acknowledges that the proposed treatment is consistent with the existing designs of the internal roads in other sections and notes the pedestrian / cyclist / vehicle conflict concerns raised by Council. The Department concurs with the Applicant that cyclists will be required to dismount at the carpark access until the shared path is continued further along Redbank Road and that signalising the existing crossing is not a reasonable or practical means of preventing cyclists from riding across the crossing, given the minimal use this internal road would have. Further, the Department agrees with the Applicant that the pedestrian crossing should not be raised as this would impact ambulance entry movements and would require re-grading of the existing carpark access road.

On balance, the Department considers that the proposal achieves an acceptable level of cyclist/pedestrian safety whilst achieving the operational requirements of the hospital. A condition of consent has been recommended requiring pedestrian crossings be installed in accordance with the relevant design standards and warrants of the relevant road authority.

6.2 Built form, urban design and landscaping

The proposal comprises a 10-storey building that would have a maximum height of 48.9m (RL66.20) when measured from existing natural ground (including plant). The building would have a total GFA of 38,000sqm. The site is not subject to a building height or floor space ratio (FSR) development standard under the PLEP 2023. In the absence of any height and FSR controls, the Department has undertaken a merit assessment of the height and massing of the proposal.

The proposal has been the subject of a robust review process by the SDRP throughout the development of the proposed design. That process guided the resulting built form, and its interaction with the adjoining buildings and public domain.

Architectural design concept

The design and massing of the building is based on an 'open hand' concept aligning with Connecting to Country principles.

The floorplan of each level typically contains a pair of inpatient units (IPUs), which includes overnight patient accommodation, shared space for a broad range of patient activities and clinical staff areas. The building form would comprise a main spine forming the entry, and support spaces with residential 'fingers' creating open ended courtyards oriented to the northwest towards Toongabbie Creek. The Applicant's Architectural Design Statement indicates that the intent of the proposed design is to provide amenity to consumers and staff and to take advantage of northern sunlight and views of Toongabbie Creek. Further, elevated courtyards have been proposed in a staggered arrangement with the intention of minimising overshadowing.

During exhibition of the EIS, Council provided comment and recommended the relocation of the fire stairs away from the peninsula ends to ensure views to Toongabbie Creek are optimised. The Applicant submitted additional information as part of the RtS, comprising a written statement within the Submissions Report addressing Council's concerns. Of note, the Applicant argued that:

- due to the geometry of the floor plate and egress compliance requirements, the provision of fire stairs at the end of each tower plate is most functional / appropriate location.
- views to natural landscapes and Toongabbie Creek north of the site would be achieved through the placement of a lounge area at the end of each peninsula wing.
- a range of material finishes, textures and detailed articulation has been incorporated into the design of the peninsular wings to minimise the appearance of the fire stairs and create a high degree of architectural expression.

Council provided comment on the RtS and supported the Applicant's response on the basis that the Applicant explore an alternate façade treatment for the fire stairs that is more sympathetic to its surroundings and the 'Connection with Country' narrative.

No concerns were raised to the location of the fire stairs or the proposed façade design and fenestration by the SDRP or the GANSW.

The Department acknowledges that views to Toongabbie Creek from the IMHC building should be a focal point of the design, particularly given the benefits it would provide the consumers of the mental health complex. As views to Toongabbie Creek would be achieved through the placement of a lounge area at the end of each peninsula wing, the Department is satisfied that the proposed location of the fire stairs would not prevent views to Toongabbie Creek from key vantage points within the IMHC building.

Bulk and scale

The submitted Architectural Design Statement contends that the bulk and scale of the IMHC building would be sympathetic to its context and built environment context, as it would achieve an average height that is nine metres lower than the adjoining CASB and the future PSB (shown in Figure 12). The Applicant maintains that the IMHC building form would provide both the CASB and the PSB with visual connection and site lines to the 'green wedge' and Toongabbie Creek.

Figure 12 | Height of IMHC building and adjoining context (Source: Design Report)

During exhibition of the EIS and in response to the RtS package, Council provided comment on the proposal and recommended a reduction in the height of the IMHC peninsula wings to improve solar access and building aesthetics. The Applicant submitted additional information to address Council's comments. As part of the response, the Applicant reiterated that the IMHC building mass would be viewed as a series of splayed towers at varied heights, angles and stepped landscape terraces and that the building would be articulated with differing façade treatments and materials to reduce the bulk and scale of the IMHC when viewed from the public domain. Additionally, the Applicant maintains that the peninsula design would increase access to natural light and views through the considered placement of patient windows and open spaces.

Again, no concerns were raised to the proposed height and massing of the peninsula wings by the SDRP or GANSW, and they noted that the 'helping hand' architectural concept resulted in

"increasing the capability of rooms, corridors, and shared gathering spaces to receive natural light, ventilation and outlook".

The Department has assessed the bulk and scale of the proposed IMHC and has determined that building is sympathetic to its context and built environment. The IMHC would achieve an average height that is lower than the adjoining CASB and the future PSB (shown in **Figure 12**). Its perceived bulk and scale would be minimised as a result of the natural fall of the land towards Toongabbie Creek. Further, the Department is satisfied that the recommendations made through the SDRP process have been appropriately met as part of the design.

Façade design

The proposed primary cladding material is a solid colour anodised aluminium panel or 'shingle'. The Architectural Design Statement argues that the 600mm x 600mm diagonal shingles provide a unique and appealing articulation to the façade, creating visual interest that softens the impact of the building's mass. Individual shingles are proposed to be a single colour from a colour palette of five colours, with the colour strength diminishing in intensity upwards in a fragmented design (see **Figure 13**).

Figure 13 | Façade and cladding design (Source: Design Report)

The Architectural Design Statement identifies that the proposed façade colours and materials relate to the Aboriginal narrative as follows:

- Water: the graded blue colours and fade pattern are an abstraction of the movement and reflection of river water on Country. The folded brown fascia to the lower connector form on Redbank Road also represent the three rivers that are close to the Westmead Hospital campus.
- Earth: the perimeter of building consists of a mixture of recycled and new bricks sourced from the greater Sydney area to relate to the materials from the 'Earth'. The off-white and brown terrace courtyard screens relate to the geology of the clays, sand, and rock of the local river basin.
- Fire: the dark grey profiled metal cladding relates to the use of fire for ceremonies and land management on Country.

In its comments on the EIS, Council suggested that the Applicant adopt a complementary design for the base and upper levels, with masonry elements for the base and softer design elements at the upper levels. The Applicant responded in the RtS that the proposal strategy seeks to achieve articulation, while also differentiating each building element. As a result, the façade treatments have been designed to be distinct but cohesive.

Noting that the SDRP supported the proposed façade treatment and materials, the Department considers the proposed building facades would contribute to the achievement of a high standard of architectural design and in keeping with Connecting with Country principles.

Landscaping

The landscape design concentrates its focus on streetscape elements along Redbank Road, a 'park-like' public open space to the north, staff courtyard, the eastern entry, loading dock and within the courtyards (Levels 1 to 9) (see **Figure 14**). The proposal would result in an overall tree canopy of 3,364sqm, being an increase of 280sqm of tree canopy.

Figure 14 | Site Landscaping (Source: Landscape Plans)

The application proposes to retain existing trees wherever possible (See **Section 6.5**), providing shading and a green setting. Proposed planting would be predominately native species with an

emphasis on locally endemic Swamp Oak Forest Cumberland Plain community. Species which have food, medicinal, and cultural significance have been proposed in accordance with Connecting with Country principles.

The Department acknowledges that the expansive 'open landscape' area proposed to the north (rear) of the IMHC would provide a generous park-like setting for use by occupants and the broader hospital community. The proposed landscape scheme is considered a significant improvement over the existing landscape arrangement and would result in the enhancement of the quality and quantity of trees and groundcovers in the vicinity.

Further, the Department deems the proposed landscaped staff terrace a highly valuable and functional space for staff retreat and includes a range of areas for social events, group meetings and individual respite. Planting and screening provide separation between the publicly accessible open space and the loading dock to the west.

During the exhibition of the EIS, a submission was received from a member of the public commenting on the lack of landscaping features from Level 3 upwards. In the RtS, the Applicant confirmed that landscape terraces would be located on each level within the peninsular wings, including soft landscaping and outdoor seating.

The Department has determined the upper-level landscape elements to be sufficient and would provide substantial amenity to the terraces.

In summary, the Department has determined the proposed landscape scheme to be a substantial improvement over the existing scheme. The proposed landscaping would be functional and appropriately scaled to the IMHC building and its use.

6.3 Noise and vibration

The application was accompanied by a Noise and Vibration Impact Assessment (NVIA) that assessed the operational and construction noise and vibration impacts associated with the development at nearby sensitive receivers including those within the hospital campus, residential properties to the west, east south and south, a commercial receiver to the north and an education receiver to the south-west (see **Figure 15**).

Figure 15 I Surrounding receivers and monitoring location (Source: NVIA)

Following concerns raised by the Department, the Applicant's NVIA was amended as part of the RtS to indicate the predicted construction noise levels at the nearest sensitive uses (childcare and school), including any reduction in predicted noise levels from the implementation of mitigation measures. In preparing the NVIA, the Applicant undertook an unattended noise survey to establish the ambient and background noise levels of the site and surrounds in accordance with the NSW Noise Policy for Industry (NPfI). The survey was conducted at an off-site location to the west of the site, adjoining sensitive residential receivers across Mons Road.

6.3.1 Construction noise and vibration impacts

The NVIA has categorised construction noise generating activities into three distinct classes, namely excavation/ground works, structure and fit-out, and landscaping and external finishing works. Noise impacts from these construction activities on the amenity of the surrounding sensitive receivers have been outlined in the NVIA and are provided in **Table 10** below.

Table 10 I Predicted Construction Noise Levels (Source: NVIA)

Receiver	Predicted Construction Noise Level (Leq (15min))					Noise Affected Management Level (NAML) (Leq(15min))	Highly Noise Affected Management Level (HNAML) (Leq(15min))
	Excavator / Concrete Saw	Hydraulic Hammer	Bobcat	CFA Piling	Trailers		
R1 (medical / residential)	<42	<52	<40	<40	<40	55	75
R2 (residential)	<42	<52	<40	<40	<40	52	75
R4 (residential)	<42	<52	<40	<40	<40	53	75
R3 (educational)	<40 (internal)	<40 (internal)	<40 (internal)	<40 (internal)	<40 (internal)	45 (internal)	N/A
R5 (industrial)	<55	<62	<55	<55	<55	75 / 65	N/A
H1 (Redbank House and School)	48-68 (external) 33-53 (internal, windows closed)	59-79 (external) 44-64 (internal, windows closed)	43-63 (external) 27-47 (internal, windows closed)	45-65 (external) 30-50 (internal, windows closed)	38-58 (external) <30-43 (internal, windows closed)	45 (internal)	N/A
H2 (two childcare centres)	43-63 (external) <30-48 (internal, windows closed)	54-74 (external) 39-59 (internal, windows closed)	38-58 (external) <45 (internal, windows closed)	40-60 (external) <30-45 (internal, windows closed)	33-53 (external) <45 (internal, windows closed)	45 (internal)	N/A
H3 (Westmead CASB & PSB)	-	-	-	-	-	45 (internal)	N/A
H4 (Westmead ICPMR & Pathology building)	-	-	-	-	-	45 (internal)	N/A

Construction noise

The NVIA has determined the greatest potential for noise impact would occur during the initial phases of the project, which involve excavation and site works. The submitted NVIA has undertaken an analysis of the anticipated construction activities, summarised as follows:

- the loudest activity is likely to be pilling and the excavation of rock using excavator mounted hydraulic hammers (sound power levels of approximately 120dB(A)$_{Leq,15min}$. Given that rock breaking and other high noise producing activities will be undertaken at lower levels, there will be significant screening benefits provided by the surrounding hospital structures, except to the west.
- tower cranes (sound power levels of approximately 1 05dB(A)$_{Leq,15min}$ will not have the benefit of screening to surrounding residential receivers. Notwithstanding, noise emitted from their use is predicted to be below the NAML at all locations.

In accordance with the NSW EPA – 'Interim Construction Noise Guideline', the submitted NVIA has concluded that noise levels exceeding EPA "Noise Management" levels are unlikely to occur when assessed at surrounding residential receivers, subject to the implementation of noise mitigation measures (discussed under Section Error! Reference source not found. below).

For noise receivers within the hospital site, the submitted NVIA has concluded the following:

- given the proximity of H1 (Redbank House and School) and H2 (childcare centres) receivers, all construction activities have potential to exceed internal noise management levels with windows open. Management levels for educational and childcare receivers are specified as an internal noise level.
- with windows closed and providing the recommendations under Section Error! Reference source not found. are adopted, construction noise impacts would generally be below EPA noise management levels for H1 & H2.

Construction vibration

Where high vibration activities such as piling and rock breaking are required near the H1 and H2 site boundaries, the NVIA has recommended monitoring be undertaken to ensure vibration criteria are not exceeded (refer to Section Error! Reference source not found. of this report). Having regard to the H3 and H4 receivers (Westmead CASB, PSB, ICPMR & Pathology buildings), the submitted NVIA has concluded that:

- due to the distance of receivers H3 and H4 from the site and their low structural sensitivity, it is predicted the EPA Guidelines would not be exceeded.

- it is anticipated that vibrations from construction of the IMHC site would not pose an adverse impact on hospital operations.
- construction of the CASB link bridge is required to be considered as part of a separate assessment and managed internally.

Given the distance between the site and the nearest residential buildings and other receivers, the submitted NVIA has determined that construction vibrations would not exceed the limits specified in the NSW EPA – 'Interim Construction Noise Guideline'.

Mitigation measures

The submitted NVIA provides a range of project specific and general recommendations to mitigate construction noise and vibration impacts to comply with requirements of the relevant NSW EPA guidelines. The recommended project specific mitigation measures can be summarised as follows:

- the use of quieter ground work methods should be adopted, where practicable.
- the use of vibratory rollers is not advised.
- static plant is to be located away from site boundaries where practicable.
- trucks and bobcats to use a non-tonal reversing beacon).
- vehicular access to site is to be located away from the H2 receiver boundary.
- childcare facility staff to be consulted regarding scheduling of high impact works (i.e. piling, rock breaking).
- solid/imperforate hoarding is to be installed at H1 and H2 boundaries.
- complaint handling and the applicable construction management plan should be adopted (outlined in Sections 11.9 and 11.10 of the NVIA).
- a detailed noise management plan should be developed by the main contractor that describes in detail the construction phases, programme, processes, and equipment used, noise impact assessment and proposed mitigation and management.

Further, the NVIA also recommends the preparation of a detailed construction noise and vibration management plan to review plant selections, activities and staging to ensure reasonable and feasible measures are taken to reduce impacts to surrounding residences, along with the preparation of a detailed acoustic review of all plant items following equipment selection and duct layout design.

The Department concurs with the recommendations of the NVIA and recommends the imposition of conditions requiring the preparation of a Construction Noise and Vibration Management Plan (CNVMP) outlining management and mitigation measures generally in accordance with the Applicant's NVIA, and the preparation of a detailed acoustic review of plant items following

equipment selection and duct layout design. With the appropriate mitigation measures in place the Department is satisfied that the anticipated construction noise and vibration impacts can be managed.

6.3.2 Operational noise impacts

Operational noise emissions from the IMHC site to surrounding receivers are required to comply with the requirements of the NSW EPA - 'Noise Policy for Industry' (NPfI) 2017.

The assessment objectives vary depending on the potentially affected receivers, the time of day, and the type of noise source. The NPfI has two requirements, both of which would need to be complied with, namely an amenity criterion and an intrusiveness criterion. The intrusiveness criterion is intended to limit the audibility of noise emissions at residential receivers and requires that noise emissions not exceed the background noise level by more than 5 dB(A), while the amenity criterion is intended to limit the absolute noise level from all noise sources to a level that is consistent with the general environment.

An assessment of operational noise emissions to nearby receivers is presented in **Table 11** below:

Table 11 | NPfI noise emission criteria and Project Trigger Noise Levels

Receiver	Time period	Rating Background Noise Level dB(A)L_{90}	Project Amenity Criteria dB(A)$L_{eq(15min)}$	Intrusiveness Criteria $L_{eq(15min)}$	NPfI Criteria for Sleep Disturbance	Project Trigger Noise Levels dB(A) $L_{eq(15min)}$
R1 - Mons Road (residential/medical)	Day	45	53 (residential) 43 (medical)	50	N/A	43
	Evening	45	43	50	N/A	43
	Night	45	38	50	50 dB(A)$L_{eq(15min)}$ 60 dB(A)L_{Fmax}	38 60 dB(A)L_{Fmax}
R2 - Hawkesbury Road (residential)	Day	42	53	47	N/A	47
	Evening	42	43	47	N/A	43
	Night	39	38	44	44 dB(A)$L_{eq(15min)}$ 54 dB(A)L_{Fmax}	38 54 dB(A)L_{Fmax}
R4 – (residential)	Day	43	53	48	N/A	48
	Evening	43	38	48	N/A	38
	Night	42	33	42	47 dB(A)$L_{eq(15min)}$ 57 dB(A)L_{Fmax}	33 57 dB(A)L_{Fmax}

Receiver	Time period	Rating Background Noise Level dB(A)L_{90}	Project Amenity Criteria dB(A)$L_{eq(15min)}$	Intrusiveness Criteria $L_{eq(15min)}$	NPfI Criteria for Sleep Disturbance	Project Trigger Noise Levels dB(A) $L_{eq(15min)}$
R3 - Darcy Road - (educational)	Noisiest 1hr when in use	N/A	43 (external)	N/A	N/A	43 (external)
R5 – industrial receivers	When in use	N/A	68	N/A	N/A	68
R5 - active recreation areas	When in use	N/A	53	N/A	N/A	53
H1 & H2 - Redbank School and childcare centres	Noisiest 1hr when in use	N/A	43 (external)	N/A	N/A	43 (external)
H3 &H4 - Westmead Hospital buildings	Noisiest 1hr	N/A	33 (internal)	N/A	N/A	33 (internal)

Note: the NPfI defines:

- *'Day' as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays.*
- *'Evening' as the period from 6pm to 10pm.*
- *'Night' as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.*

Note: The project noise trigger level provides a benchmark or objective for assessing a proposal or site, and if exceeded, would indicate a potential noise impact on the community, and so 'trigger' a management response. The project noise trigger level is the lower (that is, the more stringent) value of the project intrusiveness noise level and project amenity noise level.

Mechanical plant noise has been identified in the NVIA as the main potential source of operational noise emissions, including cooling towers, air handling plant, pumps and chillers. A detailed acoustic review of the preliminary plant selections would be undertaken once plant and mechanical layouts are finalised.

The application proposes the installation of two rooftop cooling towers at roof level, which would require the implementation of noise mitigation measures to satisfy the project noise trigger levels at all surrounding receivers. The primary mitigation measure involves operating both units together at

reduced speed at night, combined with the implementation of one of the following secondary measures:

- the provision of a solid barrier extending above the height of the cooling tower units, or
- acoustic louvres, or
- the selection of quieter cooling tower unit options, or
- barriers would be required to the northern, eastern and southern sides of the cooling tower plant.

Plant rooms are proposed to be screened from the residences to the east and south by buildings on the hospital site. Notwithstanding, the NVIA has determined that where residents or sensitive hospital receivers have direct line of sight to the plant rooms, the necessary noise reduction can readily be achieved by acoustic louvres or discharge attenuators at façade openings or internally lined plenums.

The NVIA concludes that compliance with the project trigger noise level criteria (as set out in **Table 11**) would be achieved when adopting the recommended controls and treatments.

The Department concurs with the conclusions of the NVIA and is satisfied that operational noise impacts generated by the development can be adequately managed and mitigated, subject to the verification of noise attenuation measures during the detailed design stage and verification of operating conditions upon commencement of operations.

6.3.3 Traffic noise impacts

Additional traffic on the surrounding road system generated by the proposed development has been assessed based on the assessment guidelines contained in the NSW EPA Road Noise Policy, which states that for existing residences and other sensitive land uses affected by additional traffic on existing roads generated by land use developments, any increase in the total traffic noise level should be limited to 2dB above that of the corresponding 'no build option'.

A 2dB increase corresponds to a 60 per cent increase in traffic. The additional movements associated with the development would be significantly lower than this threshold and would have an insignificant impact on traffic noise. The Department is therefore satisfied that the proposal therefore complies with the traffic noise requirements of the NSW EPA Road Noise Policy.

6.4 Flooding

6.4.1 Flood impact assessment

Existing flood conditions and Applicant's FIA

The site is subject to both riverine and overland flow flooding (see **Figures 16** to **19**). It is subject to inundation of up to 0.2m during the 1% AEP, 0.25m during the 0.05%AEP and 0.5m depth during the PMF events for overland flooding. During riverine flooding, the site is subject to inundation from Toongabbie Creek of over four metres (18.1-18.8m AHD) depth during the PMF event, but is not inundated during the 1% AEP and 0.05% AEP events.

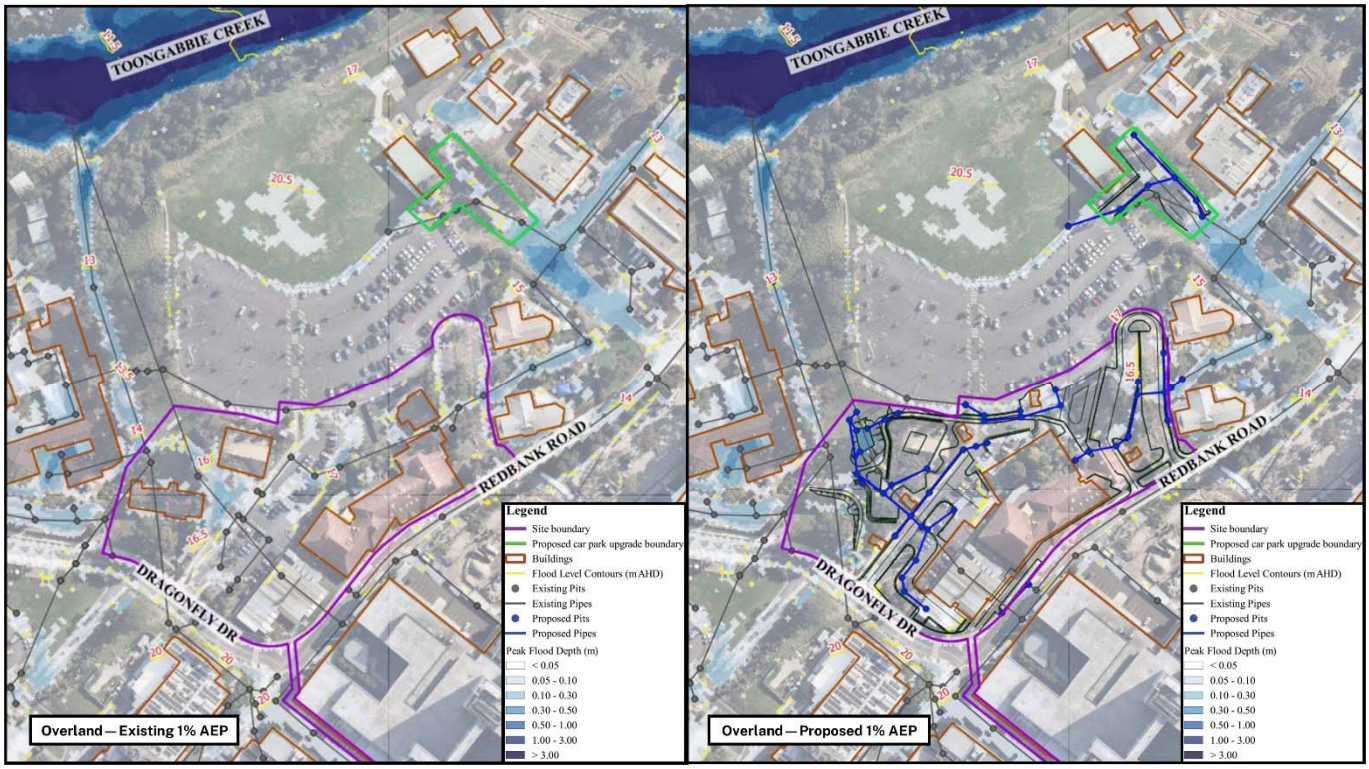

Figure 16 | Existing and proposed overland flow flood conditions during 1%AEP event at the site and surrounding area (Base source: FIA)

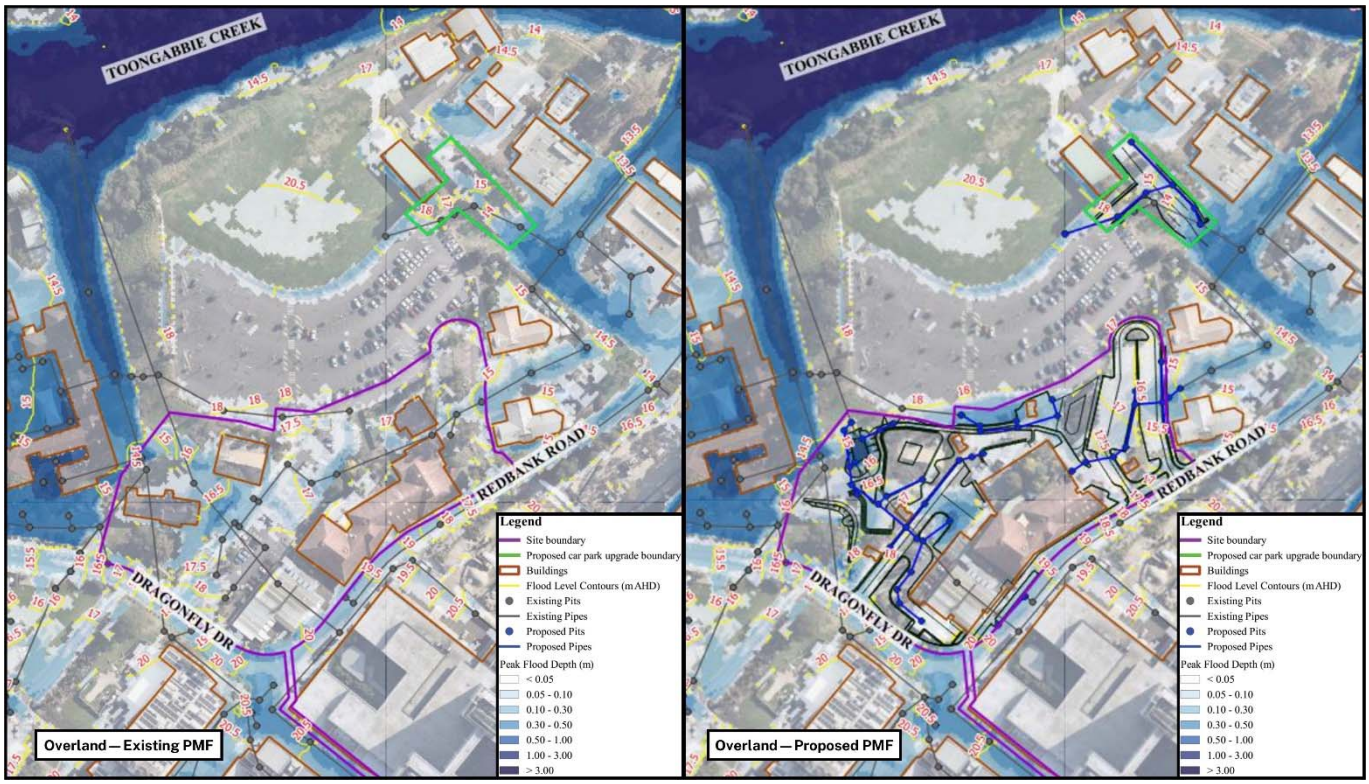

Figure 17 | Existing and proposed overland flow flood conditions during PMF event at the site and surrounding area (Base source: FIA)

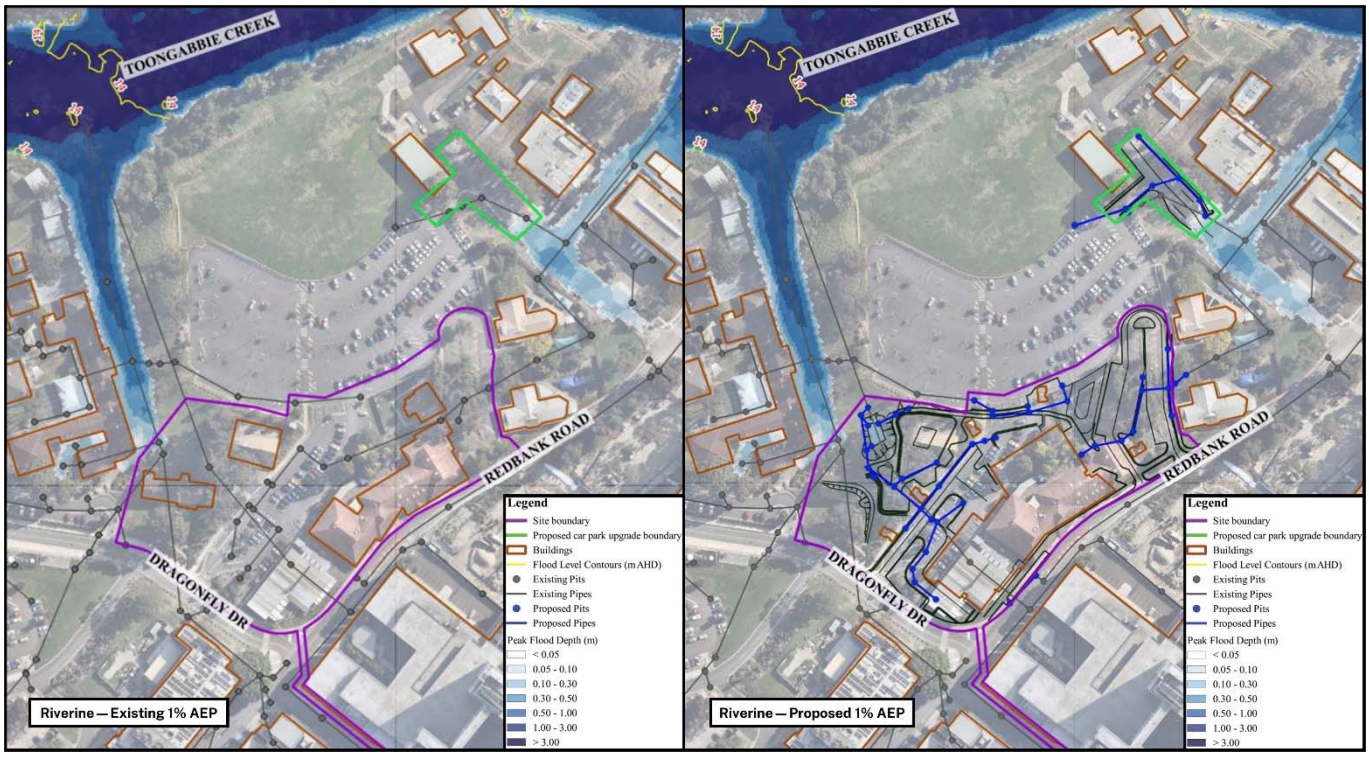

Figure 18 | Existing and proposed riverine flood conditions during 1% AEP event at the site and surrounding area (Base source: FIA)

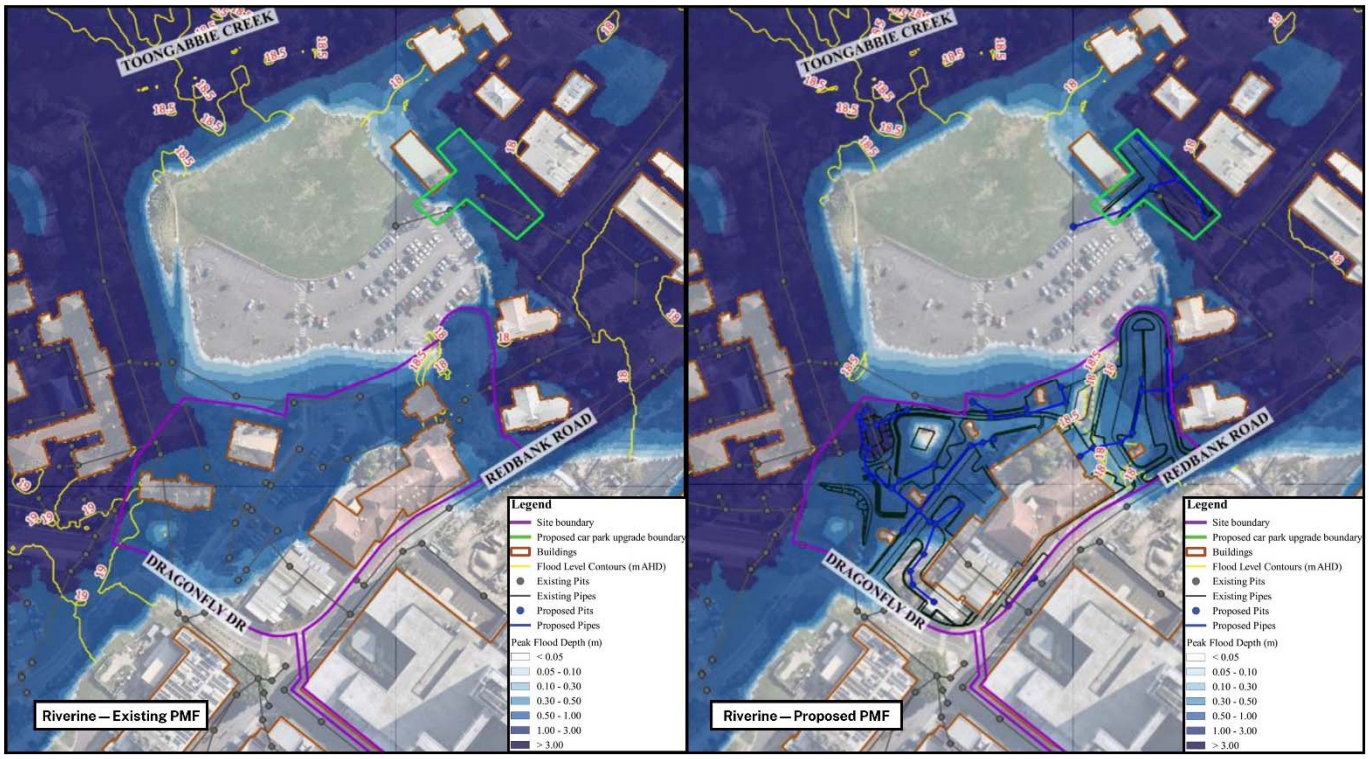

Figure 19 | Existing and proposed riverine flood conditions during PMF event at the site and surrounding area (Base source: FIA)

The EIS included an initial FIA, which provided an assessment of the existing flooding conditions, modelled potential future impacts and identification of stormwater management requirements. The FIA states:

- the proposed building design, stormwater scheme and grading strategy for the development, do not significantly impact the existing conditions flood behaviour and surrounding areas for a range of flood events.
- the proposed lowest finished floor level (habitable) of the building (Level 0) at 17.9m AHD provides flood immunity for the 1% AEP and 0.05% AEP flood levels with greater than 0.5m freeboard in both scenarios for overland flooding. All clinical facilities (Level 1 and above) and essential plant will be located at 21.9m AHD, which is also above the overland and riverine PMF flood levels.
- both the existing and post development flood hazard for the 1% AEP events (both overland and riverine) is low but the PMF event hazard is high for Redbank Road for both overland and riverine flooding and the area to the north and east of the building for riverine flooding. A shelter-in-place approach is proposed as part of the flood emergency management strategy in response to the PMF event.
- no significant impacts from the climate change sensitivity analysis.

- there would be impacts from pipe blockage, requiring maintenance and cleaning of stormwater assets to ensure adequate performance of the stormwater network.

The post development flood conditions illustrated in **Figures 16** to **19** demonstrate similar levels of inundation and slight improvements for parts of the site. **Figure 20** to **23** show the Flood Hazard categories for both the proposed overland and riverine flooding scenarios for the 1%AEP and PMF flood events as follows:

- H1 except small areas of H2/H3 near the bioretention treatments and basins during the 1%AEP flood event ranging up to H5 during the PMF event for overland flooding.
- flood free except for a minor area of H2 at the site boundary closet to the creek during the 1%AEP flood event up to H6 during the PMF event for riverine flooding.

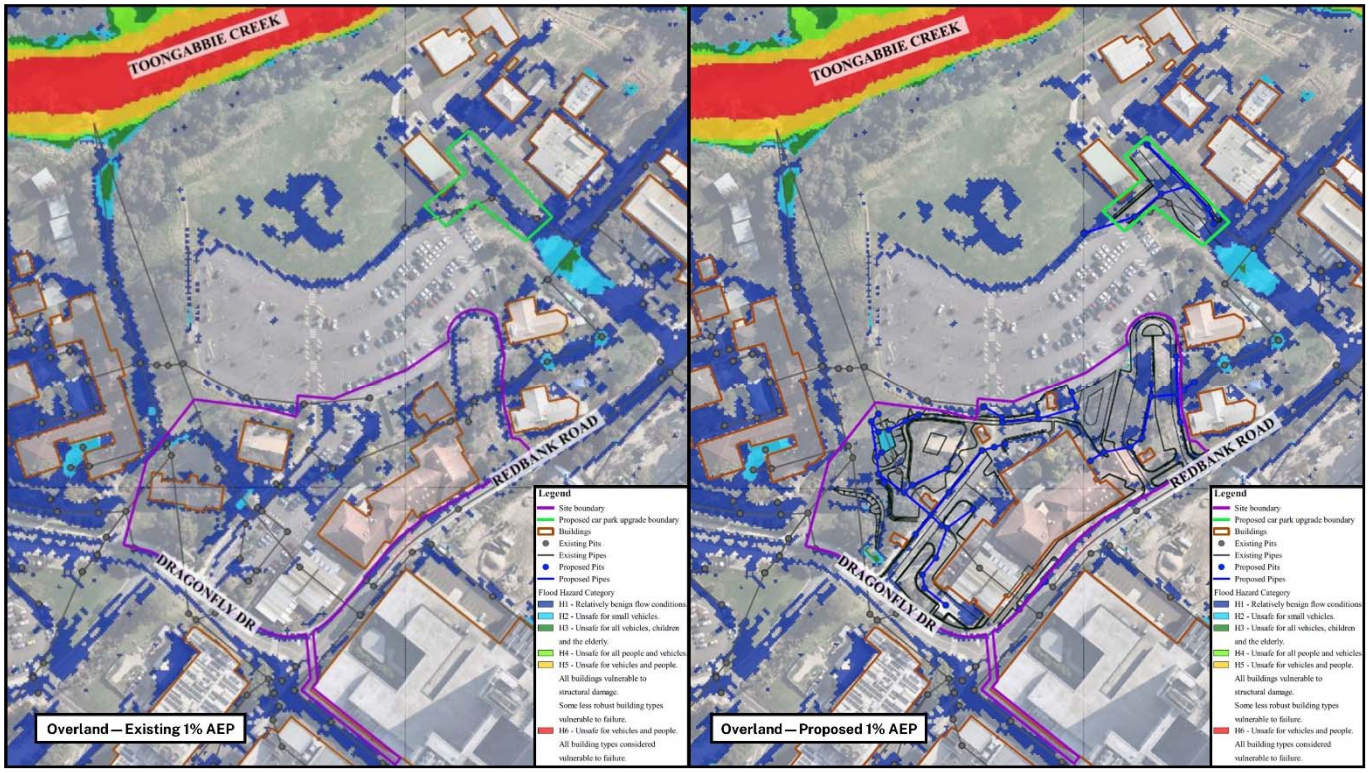

Figure 20 | Existing and proposed overland flow flood hazard classification during 1%AEP event (Base source: FIA)

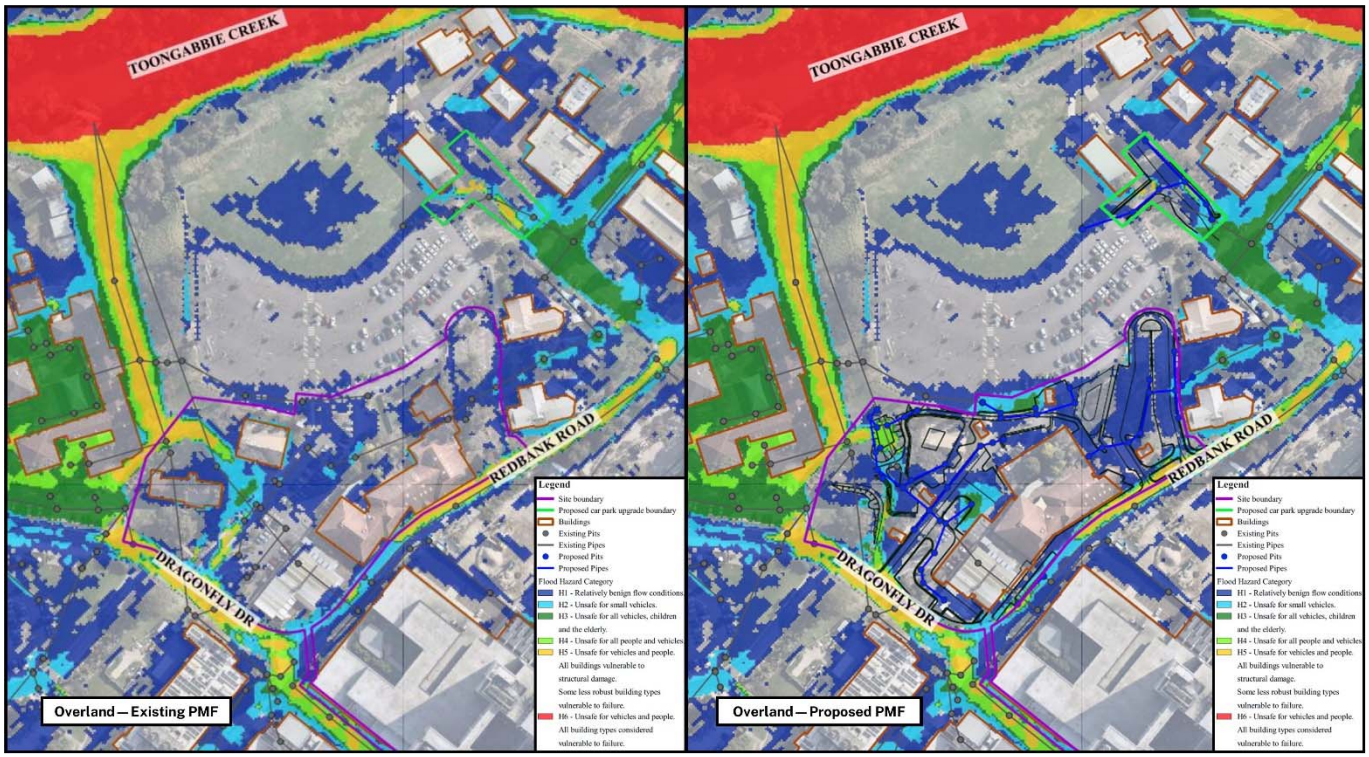

Figure 21 | Existing and proposed overland flood hazard classification during PMF event (Base source: FIA)

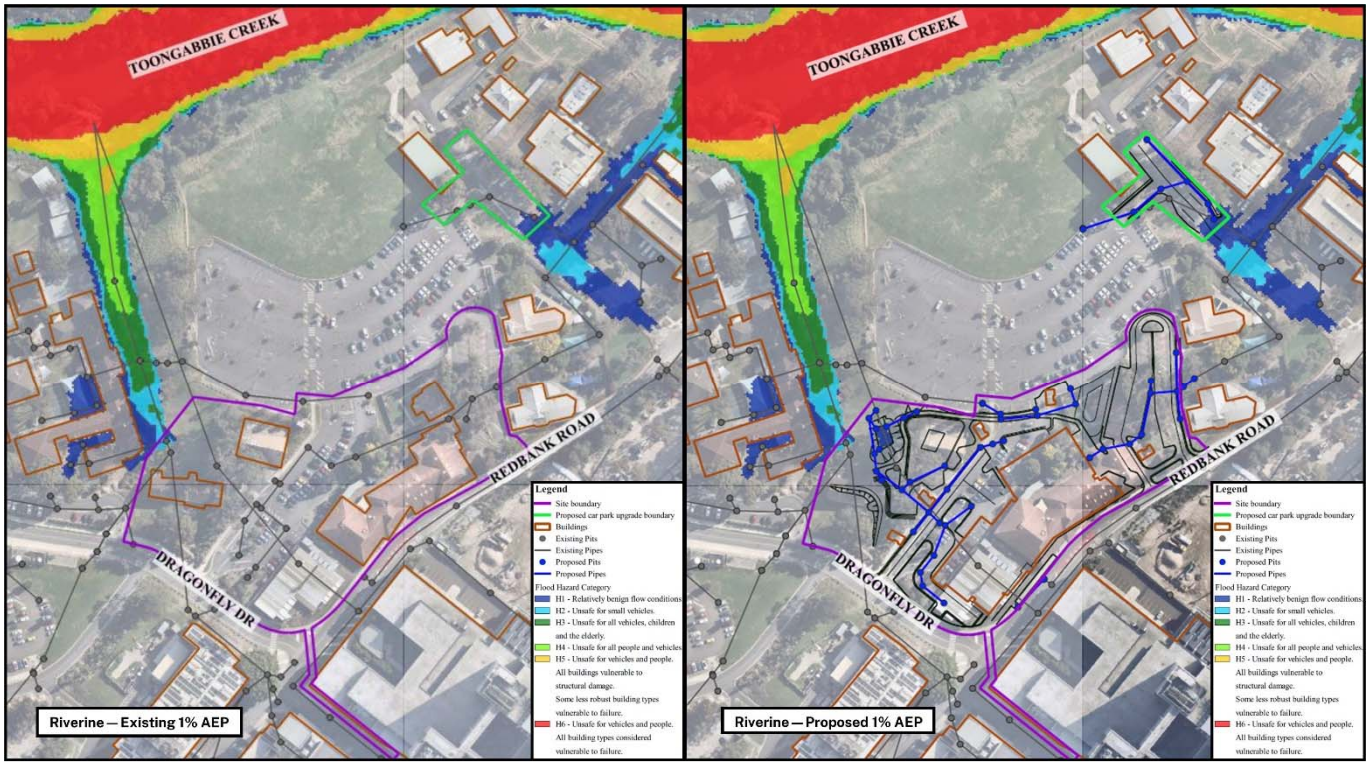

Figure 22 | Existing and proposed riverine flow flood hazard classification during 1% AEP event (Base source: FIA)

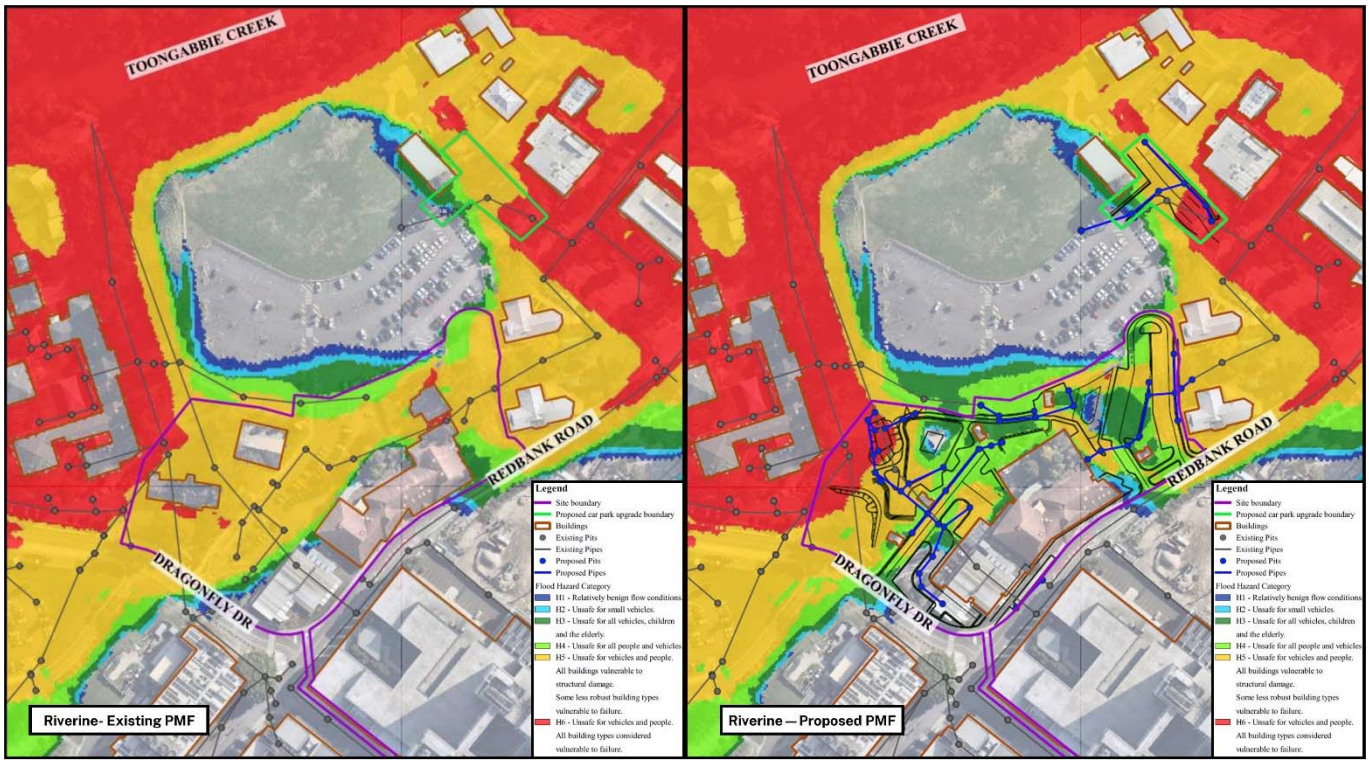

Figure 23 | Existing and proposed riverine flood hazard classification during PMF event (Base source: FIA)

EIS submissions/advice and Applicant's response

EHG raised concerns about flood impact and the construction of a hospital within PMF affected land. EHG also requested:

- use of the draft Parramatta River Flood Study flood model for additional analysis due to its recency and accuracy.
- further justification for assumptions when modelling overland flow in relation to tailwater conditions and coincidence of events.
- the project be amended to ensure avoidance of adverse flood impacts on the adjoining childcare building during a 10% AEP flood event.
- mitigation of the project's flood impacts at the Redbank House and school during a 1% AEP flood event.
- hazardous materials within the pharmacy be protected from flooding and located above the PMF level.
- modelling of longer duration storm be undertaken and additional consideration of the time of flood onset.
- revisions to the SFERP to adequately address emergency response.

NSW SES also raised concerns regarding the isolation of the building due to flooding and direct flood impacts to the building (particularly Level 0), the building being built on the floodplain and increased flood impacts on adjoining uses (school and childcare) and stated that 'shelter-in-place' during a flood event is not an NSW SES endorsed strategy. SES requested:

- further consideration of flood impacts on the wings of the proposed building as the Level 1 access is surrounded by high hazard flood waters.
- modelling of longer duration storm and additional consideration of the time of flood onset.
- the proposed pharmacy be relocated above the PMF level to reduce the burden on evacuation during a flood event.
- more details be provided in the SFERP, including triggers for activation.
- details of installation of flood risk signage in external areas.
- that any additional parking should be above ground level to facilitate safe and effective vehicular evacuation.

Council acknowledged that the application has reasonably addressed the applicable Council LEP and DCP flooding requirements. Council recommended conditions requiring compliance with the flood assessment and SFERP.

In response to the comments provided, the Applicant provided a revised FIA as part of the RtS. The revised FIA addresses several of the issues raised by EHG and SES but did not undertake additional modelling or consider Council's draft Parramatta River Flood Study. The Applicant contended that it was unreasonable to use Council's draft flood model as it has not been formally completed, adopted or exhibited, and further, that the modelling that has been utilised has been developed over several years.

RtS submission/advice and Applicant's response

EHG maintained that the Applicant must consider Council's recently exhibited peer-reviewed draft flood study for setting floor levels due to its accuracy and aligning assumptions regarding use of 5% AEP or 1% AEP tailwater for the overland flow assessment. EHG was generally satisfied with the other revised findings, including the SFERP, but recommended modelling the PMF assuming there is a blockage and raising power outlets, generators, heating, cooling services and extending water supply in a PMF.

NSW SES recommended updating the SFERP trigger due to the absence of flood warnings from NSW SES and Bureau of Meteorology and agreed with EHG that the proposed pharmacy should be relocated from Level 0 and raised concerns regarding risks regarding the generator fuel tank contaminating water and risks to power, heating/cooling and medical gas. It also noted that the

project does not meet the draft Shelter-in-place guideline (2022) as the site faces a H5 flood hazard. In terms of managing emergency risk, NSW SES recommended finer resolution flood modelling for smaller columns in the H5 flood hazard zone to assess emergency management risks, recommended consideration of basement design changes to prevent flooding and noted frequent flooding of local roads and carparks, affecting access and egress.

The Applicant submitted a further flood response and revised FIA in the RFI Response, which compares the findings of the model utilised in the FIA with the Council's draft model. It concludes that the design would not need to be modified because at the project location, the draft Parramatta River Flood Study model establishes a riverine PMF level of just above 19m AHD. Whilst this is higher than the FIA model riverine PMF level of 18.88 m AHD, this flood event still inundates Level 0 (at 17.9m AHD) of the building but does not inundate Level 1 (at 21.9 m AHD). The FIA conclusions remain the same and a more detailed SFERP has been provided to address the flood risk.

The revised FIA also:

- included a sensitivity analysis, including using the 0.05% AEP event as a proxy for the 1%AEP with climate change scenario to assess the effects of increased rainfall intensity and elevated tailwater conditions. This analysis found that the increase in peak flood level only varied by 0.01m to 0.02m for areas affected by the 1%AEP overland flood event, except at one point of the site, which increased by 0.43m. This increase would be to 14.81m AHD, which is an improvement on the pre-development overland flood level of 15.5m AHD and would not impact the proposed building lowest habitable floor level at 17.9m AHD.
- concluded that the hydraulic conditions reviewed and confirmed to present no risk to the facility even during a PMF. The columns are adequately sized to resist flood waters and potential impacts loads.

EHG raised no further issues with the revised FIA.

Department's assessment

The Department has carefully considered EHG, SES and Council advice and concerns about the location of the proposed hospital within a flood prone area, the potential risks to life, health and property and the Applicant's response to these concerns.

The Department acknowledges that the project site is flood prone land and that flooding occurs at varying degrees of frequencies and intensities within the site and the wider health precinct from both riverine and overland flooding. The Department notes the site would be subject to minor inundation of between 0.05m to 0.2m (except localised ponding of 0.5m at the Careflight Access Road/ Health Share car park entrance intersection) from overland flooding at the 1% AEP (see **Figure 16**) and moderate inundation of between 0.3m and 0.5m across the site from overland

flooding at the PMF event (see **Figure 17**). However, significant inundation would occur up to 18.89 AHD (4+m) at the riverine PMF event (see **Figure 19**). The site is subject to low risk flood hazard level (H1) during the 1% AEP overland flow flooding scenario where inundation up to 0.2m (except localised ponding of 0.5m at the Careflight Access Road/ Health Share car park entrance intersection) occurs, where it is safe for people and vehicles (see Figure 20). However, the project is subject to a high risk flood hazard level (H5 and H6) for both the respective overland and riverine PMF flood scenarios (see Figure 22 and Figure 23).

The Department notes that Recommendation 28 of the NSW Flood Inquiry 2022 recommends hospitals and medical facilities be situated above the PMF to minimise disruption and essential services infrastructure be located above the flood planning level. The Department also notes that Government's response was that it would ensure future essential services infrastructure development occurs above the flood planning level, where appropriate (see **Section 3.1**).

Whilst the development is on a PMF affected site and the building will be affected by the PMF, the Department considers the proposal is acceptable as:

- all clinical floorspace and essential plant would be located at Level 1 and above, which at 21.9m AHD is above (and therefore not be directly affected by) the PMF at 18.89m AHD.
- buildings would be designed to withstand the impact of floods up to and including the PMF event (as confirmed in the FIA).
- the development would marginally increase floodwaters to the adjoining childcare carpark and an access road, within the campus during the overland PMF event, but the increased flood waters would not change the hazard levels that already occur as a result of the different flood scenarios that affect the childcare carpark, except from H1 to H2 at a service entry for the childcare where H2 means it becomes unsafe for small vehicles. This would not affect vulnerable people (H3 is unsafe for vehicles, children and the elderly) and it is a service vehicle entrance, which is also unlikely to be used by this cohort.
- proposed Level 0 can be easily evacuated vertically and the proposed shelter-in-place strategy (discussed below) for the clinical levels is expected to be able to manage and mitigate risks to staff, patients and visitors from the shelter in place trigger being reached and during the PMF event, but evacuation is also possible via the link to the CASB on Level 2 which is not affected by the PMF.
- essential service infrastructure can be appropriately designed, including back-up generator that can maintain power to the building for the duration of the inundation, recession of waters and allowance for contingency.
- the precinct comprises strategically important health lands and there is a critical need for the mental health facilities to support the area.

- the proposal meets the primary objective of the NSW Floodplain Development Manual 2005 and the Flood Risk Management Manual 2023, as it would not result in a significant increased flood risk, as the lowest habitable finished floor of the building has been designed to be above the 1%AEP flood level plus freeboard and flood free access would be provided to the building from a link to CASB (flood free building) via Level 2.

6.4.2 Flood response strategies

The SFERP submitted with the Response to RFI acknowledges that during riverine PMF event the building would be inundated for up to two hours. The Applicant proposes to implement both a vertical evacuation and a shelter-in-place strategy during such events as the hazard category increases further to the east and west along the roads (beyond the development site) within the precinct, and it is unsafe for vehicles and people. Emergency management procedures are therefore required to ensure the safety of staff, patients and visitors. The SFERP was updated to address NSW SES comments and incorporates strategies for:

- preparation and implementation of a disaster response plan, which forms part of the wider Westmead Hospital Emergency Management Supporting Plan with a designated controller for managing incidents.
- flood monitoring.
- managing flood response, including evacuation of Level 0 occupants to upper levels once the relevant trigger levels are reached (including notionally when the electronic monitoring system detects that the 11mAHD water level in Toongabbie Creek is reached), transfer of functions, relocation of functions, maintenance of care to all clinical floors and checks before returning to normal functions and potential recovery actions.
- communications during flood emergencies.
- documentation and training, including for monitoring, communication of flood warning, responsibilities, identification of safe paths, identification of shelter-in-place locations and post-flood responses.

In relation to Recommendation 28 of the NSW Flood Inquiry and the Government's response to the Inquiry, the Department considers the development has been designed to appropriately address the flood risks, is appropriate for the site and that shelter in-place is a reasonable strategy for the safe operation of the development. In relation to NSW SES concerns about the risks associated with evacuation of health facilities, the Department notes the short duration of isolation and that a flood free evacuation route through CASB is available if required. Noting the specialised care proposed to be provided by the hospital, the Department considers that the risk to vulnerable persons would be acceptably managed subject to conditions.

Whilst the development does not meet all the criteria of the Department's draft Shelter-in-place guidelines, the preliminary shelter-in-place arrangements as detailed in the SFERP as part of a wider health precinct flood response is generally acceptable under the circumstances subject to recommended conditions of consent.

The Department is also satisfied that the details outlined in the SFERP would ensure the ongoing safety of vulnerable persons, staff and visitors. The Department has recommended a condition requiring the preparation and implementation of an operational flood emergency management plan, which would be incorporated into the Westmead Hospital Emergency Management Supporting Plan, to ensure that the recommended management measures are implemented during operation.

The Department has also recommended a condition requiring evidence be submitted that the building has been designed and constructed to a standard of structure integrity to support the intended flood response strategy of sheltering in place of vulnerable people.

6.5 Other issues

The Department's consideration of other issues is summarised in **Table 12** below.

Table 12 | Assessment of other issues

Issue	Findings and conclusions	Recommended conditions
Amenity	Overshadowing and solar access The Department is satisfied the proposal would avoid unacceptable overshadowing impacts, noting: • whilst the proposal would result in some overshadowing to the PSB, CASB, Pathology Building and Westmead Hospital Building between 12pm and 3pm during the winter solstice, these hospital buildings are already impacted by 'self-shadowing' during these hours. • all shadowing from the IMHC would be wholly contained within the subject site. • the open space areas, landscaped areas and bedrooms are generally located to the northern side of the IMHC building and would receive a high level of solar access and amenity.	Conditions have been recommended requiring that all external lighting is constructed and maintained in accordance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting.

Issue	Findings and conclusions	Recommended conditions
	Wind impacts The results of the submitted Pedestrian Wind Environment Study indicate that wind conditions for all trafficable outdoor locations within and around the development would be suitable for their intended uses, subject to the implementation of the Landscape Plans prepared by Jacobs. Visual privacy The proposed built form provides substantial separation to the boundary and surrounding development context. The proposed building would achieve a minimum setback of 17m to the existing on-site development to the south (to the CASB). Of note, the elevated courtyards proposed along the eastern elevation would be located approximately 50m from the two adjoining childcare centres to the east. These east facing courtyards would be screened by privacy screens comprising glass, fine mesh and metal panel to a height of 4.5m and would provide significant privacy to the existing childcare centres. The Department is satisfied that potential privacy conflicts between the IMHC and adjacent buildings have been appropriately mitigated through the orientation of windows and the provision of architectural metal louvres and screened courtyards. View impacts The proposed development would be located to the centre of the hospital campus, setback greater than 200m from the public domain and is not within the vicinity of any residential developments. Notwithstanding, the proposal incorporates measures which seek to avoid and	

Issue	Findings and conclusions	Recommended conditions
	minimise any potential adverse visual impacts, such as modulation, articulation and landscaping. The proposed development is consistent with the character of the surrounding area, the scale of development within the hospital campus and is consistent with the controls and objectives of the PLEP. The Department has assessed the proposal as having a negligible visual impact to adjoining land uses, buildings and the public domain. Lighting impacts Due to the 24-hour nature of the hospital use, lighting will be required throughout the night. The External Lighting Strategy prepared by Stantec has indicated that all external lighting will be designed to ensure the minimisation of obtrusive lighting to adjacent properties and sensitive receivers, namely: • Westmead Hospital CASB. • future Children's Hospital PSB. • the Children's Hospital at Westmead Childcare Centre. • Westmeadow Day Care Centre. • Redbank House. The proposed external lighting (shown at Appendix A of the External Lighting Strategy) would not have an impact on surrounding receivers, subject to compliance with AS4282: 1997 Control of the Obtrusive Effects of Outdoor Lighting.	
Tree removal	The application has been accompanied by an Arboricultural Impact Assessment (AIA). The AIA proposes the removal of 34 trees (excluding 15 palms) to facilitate the construction	The Department has conditioned mitigation and management measures, including the implementation of tree sensitive design and construction

Issue	Findings and conclusions	Recommended conditions
	of the IMHC building, short-stay carpark, civil works, landscape works and internal driveways, comprising: • Tree Nos. 13 (Sydney Red Gum), 14 (Sydney Red Gum), 40 (Eucalyptus), 48 (River She-Oak), 49 (River She-Oak), 52 (Lemon Scented Gum) and 53 (River She-Oak). • 27 trees within Group 1, comprising a cluster of Spotted Gum, Grey Gum and River Oak trees. Of the 34 trees proposed to be removed, the AIA has determined that three trees would be of a 'low' retention value (Tree Nos. 13, 14 and 40), with the remaining 31 trees having been assessed as achieving a 'medium' retention value. The Department notes that approval has been granted under a Review of Environmental Factors (REF) (REF Approval No. 10/2023/A) for the removal of 37 individual trees on the site, namely tree Nos. 3-12, 15, 16-27, 30-33, 38-39, 41-46 and 50-51. While these 37 trees have been included in the AIA with the purpose of providing context of approved on-site tree removal, the removal of these trees is not proposed under this SSDA and their removal is not within the assessment scope of this SSD application. Council recommended that the design of the proposal be amended to avoid the removal of Tree Nos. 49, 52 and 53 ('medium' retention value trees) and that the number of replacement trees be increased to be equal or greater than the number of trees proposed to be removed. In response, the Applicant advised that these trees cannot be reasonably retained without significant design amendments to the new short-stay carpark. The Department notes that the Tree Protection Zone (TPZ) of these trees are 3.72m, 7.2m and 3.72m respectively and agrees that	methods when building within Tree Protection Zones (TPZs) and Structure Root Zones (SRZs) of trees proposed for retention.

Issue	Findings and conclusions	Recommended conditions
	while the retention of these trees would generally be desirable, their retention would be problematic due to the positioning and expansive root zones of these trees. On balance, the Department considers the proposed removal of Tree Nos. 49, 52 and 53 acceptable given that it would facilitate the construction of necessary civil works infrastructure and provide for an efficient at-grade carpark layout. Having regard to the concerns raised by Council regarding the insufficient number of proposed replacement trees, the Applicant has advised that the number of trees to be planted under this SSD application (82 trees) is in excess of 2:1 of the trees to be removed (34 trees plus 15 palm trees), as shown on the amended Landscape Plan. The Department notes that the proposal would offset the required tree removal via the creation of additional landscaped areas with 865sqm retained and 2,040.5sqm of new tree canopy proposed to be planted. The proposal would result in an overall tree canopy of 3,364sqm, or an increase of 280sqm tree canopy. Overall, the Department considers that retention of the trees would not outweigh the substantial health and community benefits that the expanded hospital facility would provide. On balance, the Department is satisfied that the proposed tree removal and impact on retained trees is acceptable, subject to recommended conditions.	
Contamination	The application has been accompanied by a Contamination Assessment and a Remedial Action Plan (RAP). A range of environmental site assessments (ESAs) and asbestos quantification assessments (AQAs) have been undertaken across the site within the previous six years, primarily associated with the	The Department concurs with the recommendations of the Contamination Report and RAP. Accordingly, conditions are recommended requiring:

Issue	Findings and conclusions	Recommended conditions
	redevelopment of Westmead Hospital and the assessment of asbestos in soils across the Westmead Precinct. These assessments form the basis of the Contamination Assessment. The Contamination Assessment has made the following conclusions: • asbestos in soil is the primary contaminant of concern across the IMHC site. • whilst heavy metals, polycyclic aromatic hydrocarbons (PAHs), total recoverable hydrocarbons (TRHs), benzene, toluene, ethylbenzene and xylene (BTEX), organochlorine pesticides (OCPs) and polychlorinated biphenyls (PCBs) have been identified in soil, these contaminants were not reported to pose an unacceptable risk to receptors. • potential hazardous materials, namely lead and asbestos, have been identified on site and are associated with existing buildings. • remediation has already been carried out on a portion of the IMHC site as part of previous development within the Westmead Hospital campus, and is managed under a Long-Term Asbestos Management Plan (LTAMP) (JBS&G, 2020) The Contamination Assessment considers that the site can be made suitable for the proposed hospital land use, subject to the implementation of a Remediation Action Plan (RAP). The RAP has outlined the following remediation options for the site: • on-site treatment of soil. • off-site treatment of excavated soil, after which the soil is returned to the site.	• inclusion of environmental monitoring and management measures in the CEMP. • preparation of a Work Health and Safety Management Plan (WHSP). • implementation of the remediation measures outlined in the RAP. • preparation of a Validation Report for materials retained beneath the marker and capping layer.

Issue	Findings and conclusions	Recommended conditions
	• where the above strategies are not practical: – consolidation and isolation of the soil on-site by containment. – removal of contaminated soil to an approved site or facility, followed by replacement with appropriate material. – implementation of an appropriate management strategy. Of the above remediation options, the preferred strategy of the Applicant is for containment of asbestos impacted soils onsite with the installation of a marker layer and capping layer. The RAP has recommended processes to ensure the risks and impacts during remediation works are controlled in an appropriate manner, comprising: • inclusion of environmental monitoring and management measures in the CEMP. • the preparation of a Work Health and Safety Management Plan (WHSP) to manage the risks posed to the health of the remediation workforce. • if containment is considered the most suitable option, a Validation Report and long-term management plan for materials retained beneath the marker and capping layer are required to be certified upon completion of remediation works to ensure that the site is suitable for the proposed use. The Department has reviewed the RAP and is satisfied that the recommendations are consistent with guidelines endorsed by NSW EPA. Subject to the implementation of the measures described in the RAP, the site can be made suitable for the proposed land use.	

Issue	Findings and conclusions	Recommended conditions
Aboriginal cultural heritage	An Aboriginal Cultural Heritage Assessment Report (ACHAR) accompanied the application, including a field survey. The ACHAR includes a search of the Aboriginal Heritage Information Management System (AHIMS). The AHIMS did not identify any Aboriginal sites within the study area. Notwithstanding this, the AHIMS identifies 63 Aboriginal sites within a 2km radius of the site, resulting in the ACHAR classifying the site as being within an area of high archaeological potential. The ACHAR has assessed the site to be in a highly disturbed location comprising hospital buildings and associated infrastructure. The ACHAR concludes that the disturbance from previous hospital construction would likely have removed any evidence of occupation. The ACHAR has determined that the proposed development is not expected to have any impact on Aboriginal objects, subject to the implementation of the recommendations specified under Section 8 of the ACHAR. The recommendations include the establishment of ongoing Aboriginal consultation, the development of an interpretation strategy, the preparation of an Aboriginal archaeological and cultural heritage management plan (AACHMP) and the implementation of an unexpected finds procedure. Heritage NSW ACH raised no concerns regarding the ACHAR's recommendations.	The Department agrees with the conclusions of the ACHAR and the advice provided by Heritage NSW ACH and recommends conditions requiring the recommendations within Section 8 of the ACHAR be implemented.
Construction Management	The Applicant has proposed that a Construction and Environmental Management Plan (CEMP) be prepared in accordance with the relevant applicable Australian Standards and Occupational	The Department recommends a condition of consent requiring the submission of a CEMP to the Certifier prior to the

Issue	Findings and conclusions	Recommended conditions
	Health and Safety requirements as a condition of development consent. The CEMP will address the following: • site access control, public safety, amenity and security. • construction hours. • noise and vibration control. • material management, waste and material re-use. • sediment and erosion control. • construction traffic management. • dust suppression. • notification of surrounding properties and complaints handling. The perimeter of the site would be fully delineated and secured during construction.	commencement of any construction works.
Hazards and Risks	A Resilience and Hazards SEPP Assessment has been submitted as part of this application. The Assessment identifies the proposed storage of oxygen and nitrous oxide on-site, required for the clinical needs of the IMHC building. In summary, the proposed development does not exceed the screening threshold of the SEPP 33 Guidelines (Applying SEPP 33) and is not considered potentially hazardous. Specifically: • the combined quantities of oxygen and nitrous oxide (1,300L) storage for the IMHC will not exceed the minor storage requirements. • the number of generated traffic movements for significant quantities of hazardous materials entering or leaving the site will not exceed the relevant thresholds.	A condition has been recommended requiring that the Applicant store all chemicals, fuels and oils used on-site in accordance with the requirements of all relevant Australian Standards and the EPA's Storing and Handling of Liquids: Environmental Protection – Participants Manual' if the chemicals are liquids.

Issue	Findings and conclusions	Recommended conditions
	• the storage of dangerous good off-site and within the boundaries of the Westmead Children's Hospital will comply with the minimum separation distances un accordance with the Australian Standards. Accordingly, a Preliminary Hazard Analysis is not required as part of this SSDA and no mitigation measures are required.	
Geotechnical Investigations	A Geotechnical Investigation accompanied the application to assess the subsurface conditions and provide an engineering assessment for the proposal. A total of eight boreholes were drilled as part of the investigations. BH1 to BH7 were drilled within close proximity to the proposed development to depths ranging from 11.10m to 16.09m. BH8 was drilled to a depth of 3.45m (for soil subgrade strength testing). Asbestos management controls were in place throughout the investigation in accordance with an existing Asbestos Management Plan due to the known presence of asbestos within the fill present over the site. <u>Subsurface conditions and structural design</u> The Geotechnical Investigation identifies that the ground conditions on the majority of the site comprise fill overlying residual silty clay. The fill comprises weathered siltstone, laminate and interbedded siltstone and sandstone within the upper rock profile, and sandstone bedrock up to high strength encountered at a depth. Bedrock levels vary throughout the site from 4.3m to 7.8m. Based on the results of the site investigations, the Geotechnical Investigation provides advice on the geotechnical aspects of the proposed civil and structural design. These recommendations relate	Conditions are recommended requiring that the development incorporate the recommendations set out in the Geotechnical Investigation in relation to excavation support, ground anchors, footings, piles and excavation or piling below the groundwater table.

Issue	Findings and conclusions	Recommended conditions
	to excavation, retention, footings, anchors, pavements and drainage. The assessment confirms that based on the subsurface conditions, the proposal can be successfully constructed on the site. Groundwater Groundwater was encountered during borehole investigations, with observations made between 2.7m and 5.6m below surface level. Although this is below the base of any excavation to be undertaken to the IMHC, some groundwater seepage may occur into the bored piles. Therefore, it is recommended that the piles be drilled, inspected and poured with minimal delay. Where seepage does occur, the Geotechnical Investigation recommends that it be pumped from the pier holes prior to pouring of concrete and all concrete poured using tremie techniques. In summary, no adverse groundwater impacts are expected to occur, provided that the recommendations within the Geotechnical Investigation are adhered to.	
Waste Management	Construction Waste A Construction Waste Management Plan (CWMP) accompanied the application to assess the volumes and management of waste during construction. The CWMP estimates 11,059 cubic metres of construction waste would be generated during construction, based on a calculation of 19.1 cubic metres of waste per 100sqm of proposed floor area. The CWMP indicates it is likely that asbestos waste removal may be required where excavation is necessary for construction of footings for the	The Department recommends a condition of consent requiring the preparation of a final Operational Waste Management Plan and Construction Waste Management Sub-Plan.

Issue	Findings and conclusions	Recommended conditions
	IMHC. Handling and removal of asbestos waste will be undertaken in accordance with the RAP. The Department raises no concerns with regard to construction waste management and concurs with the conclusions and recommendations of the CWMP. <u>Operational Waste</u> The application as amended includes a WSLHD Waste Management Policy. Waste generated within the IMHC will be transported to the existing waste compound located at the existing Westmead Hospital Building prior to collection and removal offsite. The proposed development will not result in any significant increase in operational waste that would cause an adverse impact on the existing Hospital's management procedures. The Department has assessed the operational waste generated by the development to be minimal and appropriately managed.	
Stormwater Management	The application has been accompanied by a Civil Design Report and preliminary Civil Design Plans. <u>Stormwater</u> The proposed stormwater drainage network for the IMHC would discharge to two separate locations, detailed as follows: • stormwater from the western portion of the site would discharge to a proposed bioretention basin to the north of the site before draining into the existing 1200mm diameter trunk drain from the CASB. During major rainfall events, this runoff would bypass the bioretention basin and drain directly through the drainage network towards the 1200mm diameter trunk drain.	Conditions are recommended requiring that adequate provisions be made to collect and discharge stormwater drainage during construction and that the stormwater system be designed generally in accordance with Appendix HH to the EIS ('Civil Design Report and Integrated Water Management Plan') prepared by Arup and dated 14 December 2022.

Issue	Findings and conclusions	Recommended conditions
	• the eastern portion of the site would drain towards the existing 375mm diameter drain which runs west to east between the existing childcare buildings. Stormwater runoff from the entire site drains towards Toongabbie Creek. On site detention (OSD) is not proposed, given that the proposal would not result in significant impacts to the existing stormwater network or flooding conditions on-site. Water Sensitive Urban Design The proposed building features a rainwater harvesting system to capture and treat the runoff from the building roof catchments and re-use collected rainwater for the mechanical cooling tower top-ups and landscape irrigation. Additional Water Sensitive Urban Design (WSUD) features including a bioretention basin, bioretention swale, gross pollutant trap and other proprietary devices are proposed to meet Council pollutant reduction targets. The proposed stormwater management strategy has been reviewed by the Council and no issues have been raised. Likewise, the Department concurs with the proposed method of stormwater disposal and WSUD design and no concerns are raised in this regard.	
Social Impact	The application has been supported by a Social Impact Assessment (SIA). Following concerns raised by the Department, the Applicant's SIA was amended as part of the RtS to incorporate a more targeted assessment of social impacts to nearby residents most likely to be affected by the proposal and provide a monitoring	A condition is recommended requiring that the recommendations of the SIA be implemented.

Issue	Findings and conclusions	Recommended conditions
	and management framework that is consistent with the Department's SIA guidelines. The SIA found that positive impacts of the proposed development include: • benefits to wellbeing in the broader Western Sydney Health District community with the provision of the new mental health facility. • benefits for Westmead Hospital Staff due to the provision of the fit-for-purpose facility. • improvements to the surrounding amenity in the context of improved community safety. • improvement to livelihoods as a result of employment opportunities during construction and operation. • positive health and wellbeing benefits associated for staff, patients and visitors associated with the new public open space area. However, the SIA also found that the proposal would have negative impacts, including: • generation of noise, dust and vibration during construction. • local residents, workers, long-term/repeat patients and student communities in the locality may experience 'construction fatigue' due to the ongoing presence of several major projects. • impacts to accessibility as a result of increased traffic and truck movements and parking changes during construction. • real and perceived safety risks may arise during operation due to the presence of mental health patients. • potential accessibility impacts as a result of proposed changes to car parking arrangements.	

Issue	Findings and conclusions	Recommended conditions
	To manage potential impacts, the SIA recommends: • preparation and implementation of a detailed Green Travel Plan. • preparation and implementation of a Communications and Engagement Strategy. • develop and implement a social procurement strategy to engage local employees where possible for both construction and operational phases. • preparation and implementation of a Social Impact Management Plan (SIMP) for inclusion within the Communications and Engagement Strategy. • incorporate wayfinding signage to nearby public transport stops. • NSW Health to offer Aboriginal-specific mental health services. • utilise biophilic design principles in indoor spaces. • deliver space for exercise equipment and physical activity. • deliver classrooms for consumers to undertake training and education programs. • include Wisteria plantings where possible in external spaces. • ensure maintenance and activation of the outdoor open space area. The SIA concludes that, subject to the above management and mitigation measures, the proposal would likely have a 'significant' positive social benefit on the community.	

Issue	Findings and conclusions	Recommended conditions
	The Department is satisfied the revised SIA accords with the Department's Social Impact Assessment Guideline 2023. The Department considers the proposal would represent a net overall positive social impact. The Department is satisfied that the recommendations of the SIA can mitigate the potential negative impacts of the development.	
BCA	A Building Code of Australia (BCA) Report accompanies the application reviewing the capability of the proposed design to meet the requirements of the BCA. Overall, it is considered that the development is capable of complying with the BCA requirements, either via Deemed to Satisfy Provisions or through the preparation of Performance Solutions. The Department concurs with the findings of the BCA Report.	The Department recommends a condition requiring that the proposed development be constructed in accordance with the relevant requirements of the BCA.
Signage	The application seeks approval for 13 signage zones, comprising: • two internally illuminated 3000mm(w) x 4000mm(h) business identification signs affixed to the façade of the IMHC building (east and west elevations). • 11 wayfinding pylon signs to the perimeter of the IMHC site, namely: – five 1000mm(w) x 3200mm(h) wayfinding pylon signs – two 700mm(w) x 3200mm(h) wayfinding pylon signs – four 400mm(w) x 2000mm(h) wayfinding pylon signs	Illumination of the signage would be managed through a condition of consent requiring that lighting/illumination comply with the latest version of AS 4282-2019 - Control of the obtrusive effects of outdoor lighting.

Issue	Findings and conclusions	Recommended conditions
	The signage has been assessed against the requirements of State Environmental Planning Policy (Industry and Employment) 2021 at **0**. The Department is satisfied that the proposed signage zones would be consistent with the guidelines set out in the Industry and Employment SEPP.	
Access	An Access Capability Statement (the Statement) has been submitted as part of this application. The Statement reviews the capability of the proposed design to meet the requirements of the BCA, *Disability (Access to Premises – Buildings) Standards 2010 (Premises Standards)* and relevant Australian Standards relating to access. The Statement concludes that the design is generally capable of meeting the relevant requirements, subject to standard design development. The Department concurs with the findings of the Access Capability Statement and raises no concerns in this regard.	The Department recommends a condition requiring the proposed development be designed and constructed to provide access and facilities for people with a disability in accordance with the BCA.
Aviation	An Aviation Impact Statement has been prepared, which provides an assessment of whether the proposal would have any impact on the established helicopter flight paths in the Westmead hospital's precinct helicopter landing site (HLS) and any impact those flight operations may have on the proposed IMHC. It is noted that the application does not propose the construction of an HLS. The existing hospital campus includes an HLS operating from the rooftop of the adjoining CASB and an at-grade Careflight HLS located approximately 90m north-east of the subject site. An additional helipad is also intended to be	The Department recommends conditions requiring that the adjoining helipad / helicopter operations be reviewed by a suitably qualified and experienced aviation professional, including consideration of the proposed construction methodology including plant and equipment.

Issue	Findings and conclusions	Recommended conditions
	constructed on the recently approved PSB located directly south of the site (not subject to this application). The Architectural Plans indicate the height of the proposed building would be RL66. The existing CASB HLS achieves a height of RL80.5, which is significantly higher than the proposed building. The Aviation Impact Statement concludes that: • the proposed development would not impact the access to/from the CASB or planned PSB HLS (not yet approved). • the development would not impact the other Westmead precinct HLS as their flight paths are not affected. • the building and cranes will not impact the prescribed airspace of Western Sydney Airport or RAAF Richmond. • aviation safety will not be compromised by the project. • appropriate crane illumination is essential near the flight paths. The Civil Aviation Safety Authority (CASA) has reviewed the proposal and raises no concerns to the proposed development, subject to the imposition of conditions requiring the installation of appropriate obstacle lighting and markings on construction cranes. The Department concurs with the findings of the submitted Aviation Impact Statement and CASAs assessment.	
Development Contributions	Under Section 1.3 of the City of Parramatta (Outside CBD) Development Contributions Plan 2021 (Contributions Plan), Council imposes a	No conditions are recommended.

Issue	Findings and conclusions	Recommended conditions
	Section 7.11 levy on Crown development such as for the purpose of a hospital. The Applicant has requested a full exemption from the Contributions Plan, which identifies applicable section 7.11 development contributions. The exemption is sought under section 1.3 of the Contributions Plan, noting: • Planning Circular D6 supports an exemption from contributions for essential community services, including health services relating to Crown Development Applications. Circular D6 also notes that where a contribution is levied, the consent authority must consider the Crown's role in providing a community service, the cost of which is accountable to all taxpayers. Council raised no concerns regarding the Applicant's request to waive development contributions. The Department acknowledges that Council has not objected to the Applicant's request for full exemption from development contributions. The Department, having regard to Circular D6, considers that no levy for development contributions should be imposed on the development.	

7 Evaluation

The Department's assessment has considered the relevant matters and objects of the EP&A Act, including the principles of ecologically sustainable development (**Sections 3 and 6**), advice from government agencies, Council (**Section 5**), and strategic government policies and plans (**Section 0**). Issues raised in public submissions have been considered and all environmental issues associated with the proposal have been thoroughly addressed, with conditions recommended to address any outstanding issues.

The proposed development is consistent with the objects of the Environmental Planning and Assessment Act 1979 (including ecologically sustainable development) and with the State's strategic planning objectives for the site as set out in the Greater Sydney Regional Plan, A Metropolis of Three Cities, the Central City District Plan, Westmead Health Core Master Plan, Westmead 2013 – Draft Westmead Place Strategy, and Parramatta Council's LSPS 2036.

The Department is satisfied the proposed built form and scale of the development is appropriate when considered in the context of the surrounding buildings, the flood environment and Toongabbie Creek to the north. The overall built form, public domain and landscaping works provide significant improvements for the campus, particularly contributing to improved pedestrian amenity, access and landscaping.

The Department concluded that the surrounding road network has adequate capacity to cater for the expected minor increase in traffic in the vicinity and the proposed access arrangements would be acceptable. Further, the car parking provided within the existing Car Park P23 and the proposed short-stay carpark would meet existing demand and demand generated by the IMHC.

While the site is subject to both riverine and overland flow flooding, all clinical floorspace and essential plant would be located above (and therefore not be directly affected by) all flood events Further, the proposal meets the primary objective of the NSW Floodplain Development Manual 2005 and the Flood Risk Management Manual 2023, as it would not result in a significant increased flood risk or damage on adjacent structures or properties.

In relation to Recommendation 28 of the NSW Flood Inquiry and the Government's response to the Inquiry, the Department considers the development has been designed to appropriately address the flood risks, is appropriate for the site and that shelter in-place is a reasonable strategy for the safe operation of the development having regard to the particulars of the proposal. In relation to NSW SES concerns about the risks associated with evacuation of the health facilities, the Department notes the short duration of isolation and the flood free evacuation route through CASB that would be available. Noting the specialised care proposed to be provided by the hospital, the Department considers that the risk to vulnerable persons would be acceptably managed subject to conditions.

Whilst the development does not meet all the criteria of the Department's draft Shelter-in-place guidelines, the preliminary shelter-in-place arrangements as detailed in the SFERP as part of a wider health precinct flood response is generally acceptable under the circumstances subject to recommended conditions of consent.

The Department is also satisfied that the details outlined in the SFERP would ensure the ongoing safety of vulnerable persons, staff and visitors. The Department has recommended a condition requiring the preparation and implementation of an operational flood emergency management plan to ensure that the recommended management measures are implemented during operation.

The Department has also recommended a condition requiring evidence be submitted that the building has been designed and constructed to a standard of structure integrity to support the intended shelter in place flood response strategy.

The Department has determined that noise levels exceeding EPA Noise Management levels are unlikely to occur when assessed at surrounding residential, commercial and educational receivers during construction works, subject to the implementation of noise mitigation measures. The IMHC would also comply with the project trigger noise level criteria during operations, when adopting the recommended controls and treatments.

Consequently, the Department has formed the opinion:

- the proposal is in the public interest as it would deliver public benefits including the provision of mental health infrastructure to meet the demands of the growing population.
- the Department concludes the impacts of the proposed development is acceptable and can be appropriately mitigated through the implementation of consent conditions.
- that the development would provide economic benefits, generating approximately 606 construction jobs and 291 operational jobs through investment in health infrastructure.
- the project should be approved subject to conditions.

8 Recommendation

It is recommended that the Director, Social and Infrastructure Assessments, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report.
- **accepts and adopts** the findings and recommendations in this report as the reasons for making the decision to grant consent to the application.
- **agrees** with the key reasons for approval listed in the notice of decision.
- **grants consent** for the application in respect of the Westmead Integrated Mental Health Complex (SSD-44034342), subject to the conditions in the attached development consent.
- signs the attached development consent (**Appendix C**Appendix C).

Recommended by:

Thomas Dales
Senior Planner
Social Infrastructure

Recommended by:

David Gibson
Team Leader
Social Infrastructure

9 Determination

The recommendation is **adopted** by:

7 December 2023

Karen Harragon
Director
Social and Infrastructure Assessments

Glossary

Abbreviation	Definition
AHD	Australian height datum
CIV	Capital investment value
Council	City of Parramatta Council
Department	Department of Planning and Environment
EHG	Environment and Heritage group of the Department of Planning and Environment
EIS	Environmental impact statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental planning instrument
ESD	Ecologically sustainable development
Heritage	Heritage NSW, within the Department of Planning and Environment
LEP	Local environmental plan
Minister	Minister for Planning and Public Spaces
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
SEARs	Planning Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department of Planning and Environment
SEPP	State environmental planning policy

Abbreviation	Definition
SSD	State significant development
TfNSW	Transport for NSW

Appendices

Appendix A – List of referenced documents

The following supporting documents and supporting information to this assessment report can be found on the Department's website as follows:

1. Environmental Impact Statement

   https://www.planningportal.nsw.gov.au/major-projects/projects/westmead-integrated-mental-health-complex

2. Submissions and agency advice

   https://www.planningportal.nsw.gov.au/major-projects/projects/westmead-integrated-mental-health-complex

3. Response to Submissions

   https://www.planningportal.nsw.gov.au/major-projects/projects/westmead-integrated-mental-health-complex

4. Additional information

5. https://www.planningportal.nsw.gov.au/major-projects/projects/westmead-integrated-mental-health-complex

Appendix B – Statutory considerations

Objects of the EP&A Act

A summary of the Department's consideration of the relevant objects (found in section 1.3 of the EP&A Act) are provided in **Table 13** below.

Table 13 Objects of the EP&A Act and how they have been considered

Object	Consideration
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	• the development would ensure the proper management and development of land for the provision of health research facility to meet an identified community need and provide significant social and economic benefits to the community.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	• the proposal includes measures to deliver ecologically sustainable development (ESD) as described below.
(c) to promote the orderly and economic use and development of land,	• the proposal would meet the objectives of the SP2 zone and would deliver a health services facility consistent with the objectives of State Environmental Planning Policy (Transport and Infrastructure) 2021 and overarching strategic policies for the locality. The expansion would also be of economic benefit through job creation and infrastructure investment. • the Department considers the proposed development promotes the safe and orderly use of flood prone land (see **Section 6.4**).
(d) to promote the delivery and maintenance of affordable housing,	• not applicable
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	• the proposal would not result in the loss of any threatened or vulnerable species, populations, communities or significant habitats.

Object	Consideration
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	• the proposed development is not anticipated to result in any detrimental impacts to building and cultural heritage, including Aboriginal cultural heritage (see **Section 6.5**).
(g) to promote good design and amenity of the built environment,	• the proposal has been reviewed by the SDRP throughout the development of the proposed design. The Department considers the overall built form of the development to be complementary to existing development within the hospital campus and surrounding locality (see **Section 6**).
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	• The Department has considered the proposed development and has recommended a number of conditions of consent to ensure construction and maintenance is undertaken in accordance with legislation, guidelines, policies and procedures (**Appendix C**).
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	• The Department publicly exhibited the proposal (**Section 5.1**) and consulted with Council and other public authorities and considered their responses (**Sections 4** and **5**).
(j) to provide increased opportunity for community participation in environmental planning and assessment.	• The Department publicly exhibited the proposal as outlined in **Section 5.1**, which included notifying adjoining landowners and displaying the proposal on the Department's website.

Ecologically sustainable development

The EP&A Act adopts the definition of ecologically sustainable development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- the precautionary principle.
- inter-generational equity.
- conservation of biological diversity and ecological integrity.

- improved valuation, pricing and incentive mechanisms.

The Department required the Applicant to demonstrate how the principles of ESD have been incorporated into the project, including how it addresses:

- national best practice sustainable building principles to improve environmental performance and reduce ecological impact.
- projected climate change impacts.

The following analysis was provided by the Applicant:

The precautionary principle

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The precautionary principle requires careful evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment.

The Applicant states that the EIS has not identified any serious threat of irreversible damage to the environment and therefore the precautionary principle is not relevant to the proposal.

Inter-generational equity

Inter-generational equity is concerned with ensuring that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. The proposal has been designed to benefit both the existing and future generations by:

- ensuring the health, diversity and productivity of the environment are maintained through the implementation of passive and active design measures that reduce operational energy and water use from the project.
- reducing energy, water and waste to ensure that the health, diversity, and productivity of the environment is maintained for the benefit of future generations.
- implementing safeguards and management measures to protect environmental values.
- facilitating job creation in close proximity to homes and public transport.

The Applicant states that the proposal has integrated short and long-term social, financial and environmental considerations so that any foreseeable impacts are not left to be addressed by future generations. Issues with potential long-term implications such as waste disposal would be avoided and/or minimised through construction planning and the application of safeguards and management measures described in the EIS and technical reports.

Conservation of biological diversity and ecological integrity

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration.

The Applicant has indicated that the proposal would not have any significant effect on the biological diversity and ecological integrity of the study area.

Improved valuation, pricing and incentive mechanisms

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources which may be affected by a proposal, including air, water, land and living things. Mitigation measures for avoiding, reusing, recycling and managing waste during construction and operation would be implemented to ensure resources are used responsibly in the first instance.

Additional measures will be implemented to ensure no environmental resources in the locality are adversely impacted during the construction or operational phases.

The Department's ESD assessment

The abovementioned sustainability measures will be implemented to ensure the development achieves the required rating under the Health Infrastructure Engineering Services Guidelines (incorporating Design Guidance Note 058). The Applicant has developed the Health Infrastructure ESD Evaluation Tool (ESD tool), which includes a list of nine sustainable initiative categories. The ESD tool has been previously endorsed by the Planning Secretary and outlines a self-certification approach to achieve 'Australian best practice' level. This approach has been designed to demonstrate an equivalency against the Green Building Council of Australia (GBCA) Green Star rating system. A condition of consent is recommended to certify that each of these measures has been delivered and that the targeted rating has been attained by the proposed development.

The Department has considered the proposed development in relation to the ESD principles. The precautionary and inter-generational equity principles have been applied in the decision-making process via a thorough and rigorous assessment of the environmental impacts. The proposed development is consistent with ESD principles as described in Section 6.14 and Appendix V of the Applicant's EIS, which has been prepared in accordance with the requirements of Part 8 Division 5 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation).

Overall, the proposal is consistent with ESD principles and the Department is satisfied the proposed sustainability initiatives will encourage ESD, in accordance with the objects of the EP&A Act.

EP&A Regulation

The EP&A Regulation requires the Applicant to have regard to the *State Significant Development Guidelines* when preparing their application. The Department considers the submitted EIS and development application to be prepared generally in accordance with the SSD Guidelines.

The EIS has addressed the EIS form and content criteria within clauses 190 and 192 of the EP&A Regulation. Similarly, the EIS has addressed the principles of ecologically sustainable development through the precautionary principle (and other considerations), which assesses the threats of any serious or irreversible environmental damage.

Subject to any other references to compliance with the EP&A Regulation cited in this report, the requirements for Notification (Part 8, Division 2) and Fees (Part 13, Division 1 to 4) have been complied with.

Environmental Planning Instruments (EPIs)

State Environmental Planning Policy (Transport and Infrastructure) 2021

The *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP) aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and providing for consultation with relevant public authorities about certain development during the assessment process.

Section 2.122 of the TI SEPP requires the consent authority to provide TfNSW with written notice of the development application for developments considered a 'traffic generating activity'.

The proposal is considered a traffic generating activity and accordingly has been referred to TfNSW for comment. As detailed under **Section 6.1** of this report, the Department is satisfied that the proposed development would not pose adverse traffic impacts, subject to conditions.

State Environmental Planning Policy (Industry and Employment) 2021

The *State Environmental Planning Policy (Industry and Employment) 2021* (Industry and Employment SEPP) applies to all signage that under an environmental planning instrument can be displayed with or without development consent and is visible from any public place or public reserve.

Section 3.6 stipulates that a consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied that:

- the signage is consistent with the objectives of the SEPP.
- the signage satisfies the assessment criteria specified in Schedule 5 of the SEPP.

A total of thirteen business identification signs are proposed to be installed, comprising two signs affixed to the eastern and western elevations of the IMHC building, along with eleven wayfinding pylon signs to the perimeter of the grounds and building.

The proposed signage is considered to be building/business identification signage for the purpose of assessment under the Industry and Employment SEPP. Accordingly, the objectives of the Industry and Employment SEPP and the criteria in Schedule 5 – Assessment Criteria of the Industry and Employment SEPP requires consideration.

The table below provides an assessment of the proposed signage against the criteria in Schedule 5 of the SEPP.

Table 14 Industry and Employment SEPP - Signage Assessment Criteria

Criteria	Comments	Compliance
1 Character of the area		
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The signage is of a scale and design which is compatible with the character of the development and the area.	Yes
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	The proposed signage is consistent with the locality. No third-party advertising is proposed.	Yes
2 Special areas		
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The proposal does not detract from the visual quality of any heritage buildings or open space and has been carefully designed to include the highest quality materials that will contribute to the aesthetic of the area. The signage achieves an appropriate functional balance for the future use of the site as a hospital and will not adversely impact on surrounding development.	Yes
3 Views and vistas		
Does the proposal obscure or compromise important views?	The proposed signs do not obscure or compromise any important views.	Yes

Criteria	Comments	Compliance
Does the proposal dominate the skyline and reduce the quality of vistas?	The proposed signs are modest in design and scale, they will not dominate the skyline or reduce the quality of vistas.	Yes
Does the proposal respect the viewing rights of other advertisers?	The signs do not obstruct the views of any existing signage on or in the vicinity of the site.	Yes
4 Streetscape, setting or landscape		
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	The scale, proportion and form of the signage is appropriate for the type of the development.	Yes
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	The proposed signs are of a modest design and will effectively identify the hospital building from the surrounding streetscape and promote wayfinding through identification of key features within the site (such as car parking and building entries).	Yes
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	The proposed signage has carefully considered the location and design of existing signage within the hospital campus and will not contribute to any visual clutter. It does not comprise any advertising.	Yes
Does the proposal screen unsightliness?	The proposed signs do not screen unsightliness, rather it fits within the design of the building.	Yes
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	The proposed signs do not protrude above the proposed roof/canopy height.	Yes
Does the proposal require ongoing vegetation management?	The proposed signs do not require ongoing vegetation management.	Yes
5 Site and building		

Criteria	Comments	Compliance
Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	The proposed signage is compatible with the scale and proportion of the proposed development.	Yes
Does the proposal respect important features of the site or building, or both?	The proposed signs are respectful in their design and are appropriately integrated with the features of the buildings. The proposed signage is located at key areas of the site, including at the main site and building entrances.	Yes
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The proposed signs appropriately relate to their location and are attractive and tasteful in design.	Yes
6 Associated Devices and logos with advertisements and advertising structures		
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	Not applicable.	Yes
7 Illumination		
Would illumination result in unacceptable glare?	Illumination would be minor and would not result in unacceptable glare.	Yes
Would illumination affect safety for pedestrians, vehicles or aircraft?	No	Yes
Would illumination detract from the amenity of any residence or other form of accommodation?	No	Yes
Can the intensity of the illumination be adjusted, if necessary?	The illumination can be adjusted as necessary following installation, if required.	Yes
Is the illumination subject to a curfew?	No	Yes
8 Safety		

Criteria	Comments	Compliance
Would the proposal reduce safety for any public road?	The proposed signage does not contain images, flashing lights, moveable parts and the like which would impact upon road safety.	Yes
Would the proposal reduce safety for pedestrians/cyclists?	The location and scale of the proposed signs do not pose any adverse impacts on pedestrian or cyclist safety.	Yes
Would the proposal reduce safety for pedestrians, particularly children, by obscuring sightlines from public areas?	The proposed signage will not obscure sightlines from public areas.	Yes

As demonstrated in the above table, the proposal complies with the aims and objectives of this SEPP. The signage is considered compatible with the proposed development, provides effective communication, is suitably located and is of a high-quality design and finish.

State Environmental Planning (Resilience and Hazards) 2021

Remediation of land

The State Environmental Planning (Resilience and Hazards) 2021 (Resilience and Hazards SEPP) aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.

Section 4.6 stipulates that a consent authority must not consent to the carrying out of development unless:

- it has considered whether the land is contaminated, and if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out.
- if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

The submitted Contamination Assessment confirms that the site can be made suitable for the proposed development, subject to the successful implementation of the recommendations.

Potentially hazardous or potentially offensive development

Chapter 3 of the Resilience and Hazards SEPP establishes a protocol for planning for development that can be categorised as Potentially Hazardous or Potentially Offensive Development. DPE's SEPP 33 Guidelines (2011) establish screening thresholds for Dangerous Goods stored on-site. A

Resilience and Hazards SEPP Assessment prepared by Arup has been submitted to identify existing hazardous materials and risks associated with the use of such materials in the hospital.

Overall, the proposed development does not exceed the screening threshold of the SEPP 33 Guidelines and will not be considered potentially hazardous. Specifically:

- the combined quantities of oxygen and nitrous oxide (1,300L) storage for the IMHC will not exceed the minor storage requirements.
- the number of generated traffic movements for significant quantities of hazardous materials entering or leaving the site will not exceed the relevant thresholds.
- the storage of dangerous goods off-site and within the boundaries of the Westmead Children's Hospital will comply with the minimum separation distances in accordance with the Australian Standards.

Accordingly, a Preliminary Hazard Analysis is not required as part of this SSDA and no mitigation measures are required.

Parramatta Local Environmental Plan 2023 (PLEP 2023)

The PLEP 2023 aims to create an integrated, balanced and sustainable environment that contributes to wellbeing, aims to protect and enhance the natural environment, aims to minimise risk to the community in areas subject to environmental hazards, aims to encourage a range of development to meet the needs of existing and future residents, workers and visitors and seeks to encourage ecologically sustainable development.

The Department has consulted Council throughout the assessment process and considered all relevant provisions of the PLEP 2023 and those matters raised by Council in its assessment of the development (refer to **Sections 5** and **6**). The Department concludes the development is consistent with the requirements of the PLEP 2023. Consideration of the relevant clauses of the PLEP 2023 is provided in **Table 15**.

Table 15 Consideration of the PLEP 2023

PLEP 2023	Department Consideration
Land Use Table – SP2 Infrastructure	Parramatta Local Environmental Plan 2023 (PLEP) identifies the site as being located within the SP2 Infrastructure (Health Services Facility) zone. Development for the purpose shown on the SP2 Infrastructure Land Zoning Map (such as a health services facility – which includes hospitals) is permitted with consent under PLEP 2023. The proposed development is permissible with consent under PLEP 2023.

PLEP 2023	Department Consideration
	The proposal is consistent with the SP2 objectives as: • it provides health infrastructure that is a specific use supported by the Zone. • the proposed development is compatible with Westmead Hospital, being a health services facility. • does not prevent the use of the land for provision of further infrastructure as required within the site.
Clause 4.3 Height of buildings	The site is not subject to a height limit control.
Clause 4.4 Floor space ratio	The site is not subject to a floor space ratio control.
Clause 5.10 Heritage conservation	There are no heritage items located on site or within the vicinity of the site. The site is not located within a heritage conservation area.
Clause 5.21 Flood planning	Clause 5.21 of the PLEP 2023 provides that consent must not be granted to development on land within the flood planning area unless the consent authority is satisfied the development: a. is compatible with the flood function and behaviour on the land, and b. will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and c. will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and d. incorporates appropriate measures to manage risk to life in the event of a flood, and e. will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of riverbanks or watercourses. The proposed development is identified as being within a 'flood planning area' as defined in the *Floodplain Development Manual* published by the NSW Government in April 2005. Further discussion is provided at **Section 6.4** of this report.

PLEP 2023	Department Consideration
	The Department is satisfied that the development would meet the objectives of Clause 5.21(1) and mandatory considerations under Clauses 5.21(2) and 5.21(3) of the PLEP 2023 for the reasons specified in **Section 6.4** of this report.
Clause 6.1 Acid sulfate soils	The site is identified as containing Class 5 Acid Sulfate Soils (ASS) under the PLEP 2023. The submitted Geotechnical Report includes geotechnical investigations which confirm that there is low potential for ASS occurrence at the site and that the development poses a negligible risk of disturbing ASS materials. Accordingly, the Geotechnical Report did not require the preparation of an Acid Sulfate Soils Management Plan (ASSMP).
Clause 6.2 Earthworks	Clause 6.2 requires the consent authority to consider the potential impact of the development on matters including drainage patterns, soil stability, flooding in the locality, likely future use of the land, quality of the fill or the soil to be excavated, the effect of the development on amenity of adjoining properties, the source of fill material and the destination of excavated material, the likelihood of disturbing relics and impacts on waterways. Earthworks are proposed to be undertaken across the site to achieve the desired building design levels, resulting in a total cut volume of 15,600m^3 and a total fill volume of 3,500m^3. The proposed extent of earthworks is considered acceptable as: • the works would not adversely impact on the existing drainage patterns and soil stability of the locality. • the proposed works will not impact on the capacity for any future redevelopment of the land. • excavated fill exported off site will be conditioned to be suitably validated prior to its removal and would be subject to a separate approval. • the extent of earthworks proposed will not detrimentally impact on the amenity of adjoining land uses and would be managed on site. • no fill is required to be imported to the site. • the likelihood of discovering and impacting on any relics has been assessed as low and conditions for unexpected finds have been recommended. • sediment and erosion control measures are proposed to be implemented on-site by the Applicant during site works to minimise any potential for off-site impacts.

PLEP 2023	Department Consideration
Clause 6.5 Stormwater management	Clause 6.5 of the PLEP 2023 requires the consent authority to be satisfied that the development is designed to maximise the use of permeable surfaces, includes on-site stormwater retention (if practicable) and avoids significant adverse impacts of stormwater runoff on adjoining properties and the environment. **Section 6.5** of this report addresses stormwater management in detail. The proposed stormwater management strategy has been reviewed by Council and the Department and no issues have been raised in this regard.
Clause 6.13 Design excellence	The proposed development is not located on land identified as the "Design Excellence Precinct" and accordingly the proposal is not required to exhibit design excellence for the purpose of Clause 6.13 of the PLEP 2023. Notwithstanding, the proposal has been reviewed by the SDRP throughout the development of the proposed design. **Section 6.2** of this report provides further discussion in this regard.

Other policies

In accordance with clause 2.10 of the Planning Systems SEPP, Development Control Plans do not apply to SSD. Notwithstanding, objectives of relevant controls under the Parramatta DCP 2011 (repealed in September 2023) and the Parramatta DCP 2023 (in-force), where relevant, were considered in **Section 6**.

Appendix C – Recommended instrument of consent

https://www.planningportal.nsw.gov.au/major-projects/projects/westmead-integrated-mental-health-complex