

Environmental Risk Assessment

The Environmental Risk Assessment (ERA) establishes a residual risk by reviewing the significance of environmental impacts and the ability to manage those impacts. The ERA has been adapted from Australian Standard AS4369.1999 Risk Management and Environmental Risk Tools.

The ERA addresses the following significant risk issues:

- The adequacy of baseline data;
- The potential cumulative impacts arising from other developments in the vicinity of the site; and
- Measures to avoid, minimise, offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the environment.

Figure 1 indicates the significance of environmental impacts and assigns a value between 1 and 10 based on:

- The receiving environment;
- The level of understanding of the type and extent of impacts; and
- The likely community response to the environmental consequence of the project.

The manageability of environmental impact is assigned a value between 1 and 5 based on:

- The complexity of mitigation measures;
- The known level of performance of the safeguards proposed; and
- The opportunity for adaptive management.

The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented.

Significance of impact	Manageability of impact				
	5 Complex	4 Substantial	3 Elementary	2 Standard	1 Simple
1 – Low	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)	2 (Low)
2 – Minor	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)
3 – Moderate	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)
4 – High	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)
5 – Extreme	10 (High)	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)

Figure 1 Risk Assessment Matrix

				Risk Assessment		
Item	Phase	Potential Environmental Impact	Proposed Mitigation measures and / or Comment	Significance of Impact	Manageability of Impact	Residual Impact
Key: C - Construction, O - Occupation						
Traffic and Parking	C/O	<ul style="list-style-type: none"> Increase in construction traffic on local roads Increase in traffic on local roads during operation 	<ul style="list-style-type: none"> A preliminary Construction Traffic Management Plan has been prepared detailing measures to minimise any adverse impacts arising from construction traffic. Parking demand generated by the proposed development will be accommodated within the new multi-storey car park and at grade car parks. 	<p>C = 4</p> <p>O = 4</p>	<p>C = 4</p> <p>O = 4</p>	<p>C = 8 (High / medium)</p> <p>O = 8 (High / medium)</p>
Visual and Built Form	O	<ul style="list-style-type: none"> Visual impact of the development when viewed from the public domain and street 	<ul style="list-style-type: none"> The design has implemented measures such as generous setbacks, building separation and thoughtful building orientation. 	<p>O = 1</p>	<p>O = 1</p>	<p>O = 2 (low)</p>
Noise and Vibration	C/O	<ul style="list-style-type: none"> Increase in noise and vibration levels during operation Increase in noise levels during operation 	<ul style="list-style-type: none"> The proposed development will implement a Construction Noise and Vibration Management Plan which details specific measures to ameliorate any potential noise or vibration impacts to surrounding sensitive receivers. The Noise and Vibration Management Plan identifies specific measures to mitigate the operational noise caused by the development and the noise impacts are considered manageable. 	<p>C = 4</p> <p>O = 3</p>	<p>C = 2</p> <p>O = 2</p>	<p>C = 6 (Medium)</p> <p>O = 5 (Low / medium)</p>
Flooding	C/O	<ul style="list-style-type: none"> Flooding impacts on the site as well as surrounding premises 	<ul style="list-style-type: none"> A Flood Impact and Risk Assessment has been undertaken which identifies that the mitigation measures adopted will achieve an acceptable flooding outcome for the development and surrounding areas. 	<p>C = 4</p> <p>O = 3</p>	<p>C = 3</p> <p>O = 2</p>	<p>C = 7 (High / medium)</p> <p>O = 5 (Low / medium)</p>
Archaeology	C	<ul style="list-style-type: none"> Potential for archaeological findings at the site. 	<ul style="list-style-type: none"> The Historical Archaeological Assessment details specific measures to mitigate and manage impacts as locally significant archaeological resources, if found, are protected under the Heritage Act. 	<p>C = 3</p>	<p>C = 2</p>	<p>C = 6 (Medium)</p>

Social Impact	C/O	<ul style="list-style-type: none"> Construction amenity impacts including noise, vibration, dust and visual disturbance. Construction and operational traffic impact. 	<ul style="list-style-type: none"> The Social Impact Assessment includes significant positive social impacts, with negative social impacts being largely temporary and limited to construction. They can be managed and mitigated through the provision of proactive and timely communication to the community. 	C = 5 O = 1	C = 3 O = 1	C = 8 (High / medium) O = 2 (Low)
Stormwater	C	<ul style="list-style-type: none"> Overland flows captured and proposed OSD tanks. 	<ul style="list-style-type: none"> The Integrated Water Management Plan identifies that overland and piped flows can be accommodated within the existing easement. Two OSD tanks are proposed and are not impacted by the 1% AEP flood levels. 	C = 1	C = 1	C = 2 (Low)
Sediment and Erosion	C	<ul style="list-style-type: none"> Erosion and sediment impacts to surrounding properties. 	<ul style="list-style-type: none"> A Soil and Water Management Plan will be prepared and sediment fences, amongst other mitigation measures, will be implemented. 	C = 2	C = 1	C = 3 (Low)
Tree Removal and Landscaping	C	<ul style="list-style-type: none"> Tree removal at the site. 	<ul style="list-style-type: none"> Tree removal is considered acceptable as replacement tree planting will occur at a ratio greater than 1:1. 	C = 2	C = 1	C = 3 (Low)
Environmental Heritage	C	<ul style="list-style-type: none"> Impact to heritage items. 	<ul style="list-style-type: none"> Construction will be undertaken and consider the impact to surrounding heritage items. The proposed works will not impact on the heritage significance of surrounding heritage items and mitigation measures are provided in the Statement of Heritage Impact. 	C = 1	C = 1	C = 2 (Low)
Aboriginal Heritage	C	<ul style="list-style-type: none"> Impact to Aboriginal cultural items. 	<ul style="list-style-type: none"> There are no Aboriginal heritage items, sites, places or cultural values that will be impacted by the proposed development. 	C = 1	C = 1	C = 2 (Low)
Groundwater and Geotechnical	C	<ul style="list-style-type: none"> Impacts of ground water and geotechnical conditions. 	<ul style="list-style-type: none"> The fill was underlain by residual clayey soils and weathered shale. Any exceedances in the groundwater were of low concentration and unlikely to affect the proposed development. A Salinity Management Plan is required. An Acid Sulfate Soils Management Plan is not required. 	C = 1	C = 1	C = 2 (Low)

Contamination and Remediation	C	<ul style="list-style-type: none"> Impact of contamination at the site. 	<ul style="list-style-type: none"> The Contamination Letter determines that the site can be made suitable for the proposed development subject to the implementation of the remediation measures detailed within the RAP which is subject to a separate development application. 	C = 1	C = 1	C = 2 (Low)
Public Space and Crime	C/O	<ul style="list-style-type: none"> Concerns of safety and crime prevention through environmental design (CPTED) 	<ul style="list-style-type: none"> The CPTED makes recommendations for consideration during the detailed design phase, and these will be adopted by the project. The CPTED Report concludes that subject to the implementation of the recommendations, the New Bankstown Hospital is capable of providing a secure, well-managed environment that ultimately contributes positively to the safety and amenity of the broader Bankstown CBD Precinct. 	C = 2	C = 1	C = 3 (Low)
Waste	C/O	<ul style="list-style-type: none"> Construction waste impacts. Amount of operational waste. 	<ul style="list-style-type: none"> A Construction and Waste Management Plan (CWMP) has been prepared and a Detailed CWMP will be prepared post determination and prior to construction commencing. Operational waste will be managed in accordance with the Operational Waste Management Plan and no further operational mitigation measures are required. 	C = 2 O = 1	C = 1 O = 1	C = 3 (Low) O = 2 (Low)
Biodiversity	C	<ul style="list-style-type: none"> Impact to biodiversity values. 	<ul style="list-style-type: none"> A Biodiversity Development Assessment Report has been prepared and details the mitigation measures. 	C = 2	C = 1	C = 3 (Low)
Ecologically Sustainable Development	O	<ul style="list-style-type: none"> Sustainable design and development and impact on the environment 	<ul style="list-style-type: none"> The project will exceed current expectations for sustainable building performance and contributes to broader goals such as reducing greenhouse gas emissions, improving occupant wellbeing, and promoting responsible construction practices. A Net Zero Statement is provided within the ESD Report which demonstrates that the proposal will be fossil fuel-free by 2035 and renewable energy generation in the form of PV systems and all-electric HVAC systems to minimise energy consumption. 	O = 1	O = 1	O = 2 (Low)

Hazards	O	<ul style="list-style-type: none"> Storage of dangerous goods for the proposed development. 	<ul style="list-style-type: none"> The PHA concludes that all dangerous goods storage and handling areas will comply with the requirements of the relevant Australian Standards and that hazards associated with these facilities are effectively controlled to As Low As Reasonably Practicable (ALARP). Therefore, it is concluded that the proposed hospital is only potentially hazardous and is suitable for the location and the proposed land use. A Final Hazard Analysis is to be prepared at the detailed design stage. 	O = 2	O = 1	O = 3 (Low)
Aviation	C/O	<ul style="list-style-type: none"> Lighting and construction within the OLS. 	<ul style="list-style-type: none"> During construction, should any cranes exceed the PANS-OPS limit, a Controlled Activity Application will need to be lodged with Bankstown Airport. Lighting proposed by the development may be regulated by the Civil Aviation Safety Authority (CASA) as it is within 6km of the Bankstown Airport. 	C = 1 O = 1	C = 1 O = 1	C = 2 O = 2
Construction Management	C	<ul style="list-style-type: none"> Issues related to construction management 	<ul style="list-style-type: none"> The Preliminary Construction and Environmental Management Plan addresses matters such as preliminary site investigations, community consultation and stakeholder engagement, traffic management, work, health and safety, noise management, air quality management and construction hours, amongst other issues. 	C = 3	C = 2	C = 5 (Low / Medium)
Accessibility and BCA	O	<ul style="list-style-type: none"> Meeting accessibility and Building Code of Australia (BCA) 	<ul style="list-style-type: none"> The proposed development is capable of complying with the accessibility standards and BCA standards. 	O = 1	O = 1	O = 2 (Low)
Bushfire	C/O	<ul style="list-style-type: none"> Bushfire risk for the site 	<ul style="list-style-type: none"> The site is not located on bushfire prone land, nor is it in proximity to bushfire prone land. 	C = 1 O = 1	C = 1 O = 1	C = 1 O = 1