

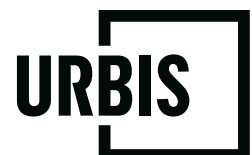


SOCIAL IMPACT ASSESSMENT

475 Badgerys Creek Road, Bradfield

Dharug, Dharawal and Gandagara Land

Prepared for
INGHAM PROPERTY GROUP
19 June 2024



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Project Code	P0043417
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Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.

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EXECUTIVE SUMMARY

Urbis Pty Ltd (Urbis) was engaged by Ingham Property Group (IPG) to prepare a Social Impact Assessment (SIA) to inform a Master Plan at 475 Badgerys Creek Road, Bradfield (the site). The Master Plan seeks to facilitate development for an industrial estate for employment and enterprise purposes at the site. The plan is made up of key land uses comprising enterprise and industry, and small scale local centre.

The requirement to prepare a SIA for this project is outlined in Part B of the Master Plan Requirements document issued by the NSW Department of Planning, Housing and Infrastructure (DPHI) in September 2022.

Item 6 in Part A of the Master Plan Requirements also outlines the requirement to ‘identify green, social and cultural infrastructure required to service the entire master plan area and provide a strategy to ensure key amenities and infrastructure servicing the site are planned and in line with need’ (p. 4). This is addressed Chapter 7 of this report, which contains an assessment of social infrastructure and open space needs to service the master plan area.

REPORT PURPOSE AND SCOPE

A SIA is an independent and objective study which identifies and analyses the potential positive and negative social impacts associated with a proposal. It involves a detailed and independent study to scope potential social impacts, identify appropriate mitigation measures and provide recommendations aligned with professional standards and statutory obligations.

According to the Department of Planning, Housing and Infrastructure’s (DPHI) SIA Guideline (2023), social impacts are the consequences that people experience when a new project brings change. For the purposes of an SIA, ‘people’ can be individuals, households, groups, communities, businesses or organisations.

METHODOLOGY

The following methodology was undertaken to prepare this SIA. The methodology was informed by the guidance contained within the SIA Guideline and Technical Supplement (DPHI 2023) and Liverpool City Council’s Social Impact Assessment Policy and Guidelines (Liverpool City Council 2023).

1. Background review	2. Engagement	3. Impact scoping	4. Assessment and reporting
<ul style="list-style-type: none">▪ Desktop review of surrounding land uses and site▪ Review of relevant state and local policies to understand potential implications of the Master Plan▪ Analysis of relevant data to understand the existing community.	<ul style="list-style-type: none">▪ Engagement with the local community letterbox drop to understand potential impacts.▪ Consultation with Liverpool City Council to understand potential social impacts.	<ul style="list-style-type: none">▪ Review of site plans and technical assessments▪ Review of engagement outcomes▪ Stakeholder and community consultation▪ Identification of impacted groups▪ Initial scoping of impacts.	<ul style="list-style-type: none">▪ Assessment social impact and benefits considering with and without mitigation and enhancement measures.▪ Provision of recommendations to enhance positive impacts, reduce negative impacts and monitor ongoing impacts.

The potential impacts and benefits of the proposed Master Plan are assessed by comparing the magnitude of impact (minimal to transformational) against the likelihood of the impact occurring (very unlikely to almost certain). This risk assessment methodology has been applied from the SIA Guideline: Technical Supplement (DPHI 2023) and is outlined in Section 2.2 of this report.

SOCIAL INFRASTRUCTURE AND OPEN SPACE ASSESSMENT

A summary of the key findings and recommendations from the social infrastructure and open space assessment is provided below. The full social infrastructure and open space assessment is provided in Section 6 of this report.

While the Master Plan does not detail the specific uses within the small scale local centre at this stage, the following social infrastructure is recommended to meet the needs of future users on the site.

- Provide a multipurpose community centre or space in the small scale local centre. This could include an education or industry training space to support the needs of local students.
- Provide a childcare centre in the small scale local centre which can accommodate 70 places or more. The childcare centre must also be planned and designed in accordance with the Education and Care Services National Regulations (2011).
- Provide a private medical centre in the small scale local centre. The medical centre should have extended operating hours to cater to shift workers.

The Master Plan proposes a well-connected and accessible network throughout the site, with most employment areas within a comfortable walking distance (500m) of open space. As outlined in the Public Domain Landscape Strategy Design (Site Image 2024b), these spaces are proposed to be well embellished, containing walking and cycling paths, seating areas, and BBQ facilities, and open grass areas. They also provide connections to other sites to form an interconnected linear open space network across the Aerotropolis Core Precinct.

A local park is also provided in the town centre which contains seating and gathering spaces. The park is easily accessible, located centrally within the small scale local centre. Through site links are provided in the block to the north to enhance access to this space.

Outdoor multipurpose sport courts are also provided within the Master Plan. These courts are located in an activated location close to other facilities and services in the small scale local centre.

POTENTIAL SOCIAL IMPACTS AND BENEFITS

A summary of the potential mitigated social impacts and benefits identified are provided in the table below. The full assessment of social impacts and benefits is provided in Section 7 of this report.

Theme	Matter	Impact / Benefit	Summary of impact	Mitigated / enhanced rating
Culture	Potential disruption to local Aboriginal sites	Impact	The Aboriginal Cultural Heritage Assessment (ACHA) reports that many of the identified Aboriginal sites within the Master Plan area have already disturbed or destroyed. The disruption of Aboriginal sites during construction is therefore considered unlikely. The ACHA identifies a range of measures to mitigate any unanticipated impact.	Low
Culture	Incorporation of Aboriginal culture and heritage	Benefit	The Designing with Country Framework proposes a range of opportunities for Aboriginal culture and heritage to be incorporated in the Master Plan. The Public Art Strategy also identifies opportunities for Indigenous public art across the site. The inclusion of these design elements will help to acknowledge	High

Theme	Matter	Impact / Benefit	Summary of impact	Mitigated / enhanced rating
			and celebrate Aboriginal culture and heritage.	
Culture	Potential disruption to European historical heritage	Impact	The Historical Heritage Assessment indicates there are no historical items of significance within or in proximity to the site. The Historical Heritage Assessment identifies an unexpected finds procedure as a measure to mitigate any unanticipated impact.	Low
Health and wellbeing	Impacts related to air quality	Impact	<p>The Air Quality Assessment (AQA) indicates air quality impacts from existing surrounding developments is not expected to impact on the health and wellbeing of future workers on the site.</p> <p>As specific uses of the building lots are yet to be determined, the AQA contains an assessment of potentially relevant future industries and their recommended locations based on minimum separation distances from surrounding sensitive receivers. This helps to guide the location of specific uses within the Master Plan area to minimise potential impacts on surrounding sensitive receivers and is therefore a mitigation measure.</p>	Low
Health and wellbeing	Impacts related to noise	Impact	The Noise Planning Assessment (NPA) establishes noise goal allowances across the entire Master Plan site and each individual lot. This establishes a framework for future developments to minimise adverse noise impacts on future workers on the site and existing residents in Kemps Creek.	Medium
Health and wellbeing	Increased urban heat island	Impact	The development of the Master Plan will replace existing grassland with large hardstand areas which will contribute to the urban heat island affect. The Public Domain Strategy, Architectural Design Statement and Design Quality Strategy include a range of design measures to mitigate these impacts. These include riparian corridors, street tree planting, shaded outdoor picnic and seating areas	Medium

Theme	Matter	Impact / Benefit	Summary of impact	Mitigated / enhanced rating
			and reflective materials which reduce absorption of the sun's heat.	
Health and wellbeing	Provision of social infrastructure and open space.	Benefit	The Master Plan includes a well-connected and accessible open space network, and the Public Domain Landscape Strategy Design (Site Image 2024b) shows the proposed embellishment of these open spaces, including walking and cycling paths, seating and picnic and areas and open grass areas for informal sport activities. Chapter 6 of this report recommends the provision of a multipurpose community centre or space (incorporating an education or industry training space), a childcare centre and a private medical centre in the small scale local centre to further meet the needs for future workers, customers and visitors.	High
Surroundings	Creating a safe urban environment	Benefit	The Crime Prevention Through Environmental Design (CPTED) Assessment indicates that the Master Plan incorporates the four CPTED principles in its design which will help to create a safe urban environment for future workers, customers and visitors. It also proposes a range of additional recommendations to further achieve alignment with the CPTED principles. Many of these recommendations can implemented in the detailed design and operational stages.	High
Surroundings	Loss of agricultural capable land	Impact	The loss of agricultural capable land at the site to support the development of the Western Sydney Aerotropolis is expected to be mitigated through the development of the Agribusiness Precinct, which will accommodate a range of agricultural uses and industries.	Neutral
Livelihoods	Increased construction and employment opportunities	Benefit	As outlined in the Economic Assessment, the Master Plan will contribute to 700 construction jobs (including 292 direct jobs and 408 indirect jobs) and 12,429 operational jobs (including 7,144 direct	High

Theme	Matter	Impact / Benefit	Summary of impact	Mitigated / enhanced rating
			jobs and 5,285 indirect jobs). These jobs are aligned to the existing skills and capabilities of residents in the Liverpool local government area (LGA), neighbouring LGAs and Western Sydney.	

SIA RECOMMENDATIONS

This SIA proposes the following recommendations to further mitigate social impacts and enhance social benefits. These are proposed in addition to the mitigation and enhancement measures outlined in the relevant technical studies which have already been implemented or committed to.

- To enhance social benefits associated with incorporation of Aboriginal culture:
 - Identify employment opportunities for Aboriginal and Torres Strait Islander Peoples. An example of this could be employing an individual or team to manage a native food garden in the small scale local centre.
 - Provide large gathering spaces along the corridors that can be freely used by Indigenous groups to perform ceremonies or share stories. This should be done in consultation with local Aboriginal and Torres Strait Islander communities.
- To enhance social benefits associated with the provision of social infrastructure within the site:
 - Determine floor areas and detailed designs for the recommended multipurpose community centre, childcare centre and private medical centre during the preparation of the complying development certificate/s for the local centre with input from a social planning consultant and Council.

To enhance social benefits associated with creating a safe urban environment:

- Provide place making opportunities, such as food trucks and pop-up cafes in open spaces to activate these spaces.
- To enhance social benefits associated with providing local increased construction and employment opportunities:
 - Partner with future local businesses and university colleges and/or TAFEs to encourage local employment.
 - Future developers and tenants should also provide infrastructure and resources to support active and public transport to the site. This includes providing end-of-trip facilities in their buildings, participating in employee Opal card loan or subsidy schemes, adopting a car sharing service and a bicycle sharing or subsidy service and providing employees with induction packs outlining public and active transport options.

1. INTRODUCTION

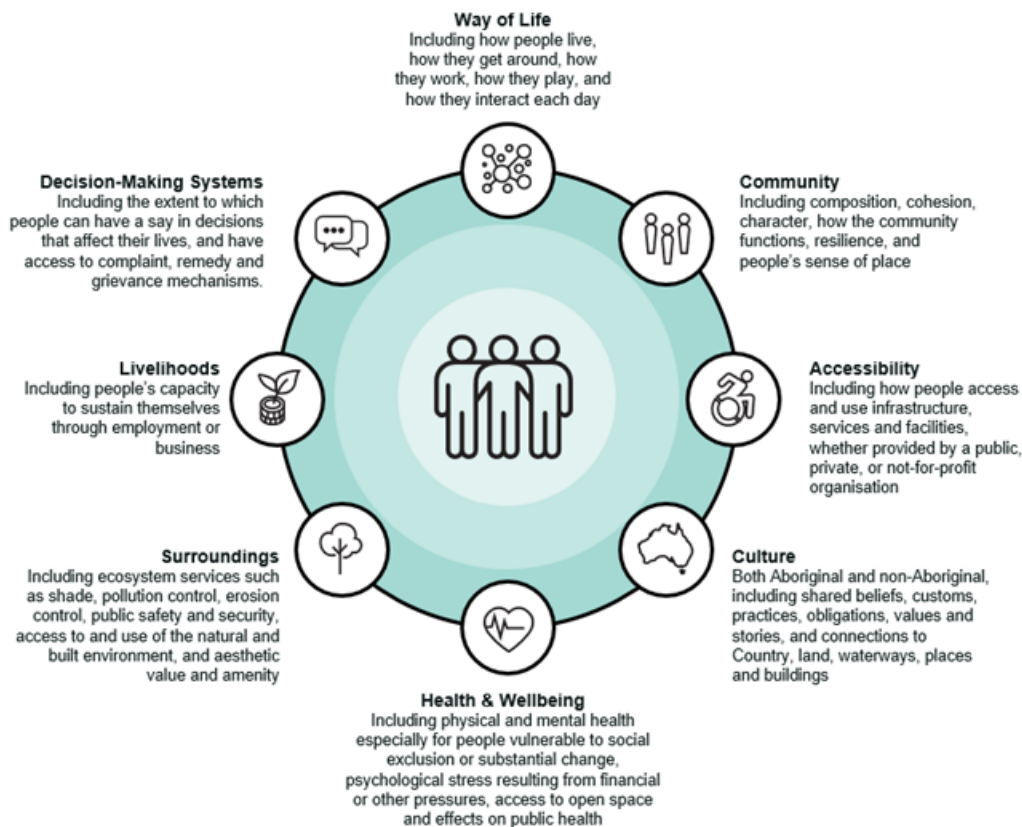
Urbis Pty Ltd (Urbis) was engaged by Ingham Property Group (IPG) to prepare a Social Impact Assessment (SIA) to inform a Master Plan at 475 Badgerys Creek Road, Bradfield (the site). The Master Plan seeks to facilitate development for an industrial estate for employment and enterprise purposes at the site. The plan is made up of key land uses comprising enterprise and industry and small scale local centre.

1.1. REPORT PURPOSE AND SCOPE

A SIA is an independent and objective study which identifies and analyses the potential positive and negative social impacts associated with a proposal. It involves a detailed and independent study to scope potential social impacts, identify appropriate mitigation measures and provide recommendations aligned with professional standards and statutory obligations.

According to the Department of Planning, Housing and Infrastructure's (DPHI) SIA Guideline (2023), social impacts are the consequences that people experience when a new project brings change. For the purposes of an SIA, 'people' can be individuals, households, groups, communities, businesses or organisations. These impacts can be considered in eight categories, as shown in Figure 1 below.

Figure 1 SIA Impact Categories



Source: SIA Guideline (DPHI 2023, p. 19)

1.2. SIA REQUIREMENT

The requirement to prepare a SIA for this project is outlined in Part B of the Master Plan Requirements document issued by the NSW Department of Planning, Housing and Infrastructure (DPHI) in September 2022.

Item 6 in Part A of the Master Plan Requirements also outlines the requirement to 'identify green, social and cultural infrastructure required to service the entire Master Plan area and provide a strategy to ensure key amenities and infrastructure servicing the site are planned and in line with need' (p. 4). This is addressed

Chapter 7 of this report, which contains an assessment of social infrastructure and open space needs to service the Master Plan area.

1.3. PROJECT OVERVIEW

IPG has recently completed a Master Planning pathway with the Technical Assurance Panel (TAP), which is an optional co-design planning process established under the Western Parkland City State Environmental Planning Policy (WPC SEPP) to amend the Aerotropolis Precinct Plan as it applies to the site. The Master Plan will be formally lodged to the DPHI in accordance with the Western Sydney Aerotropolis Master Plan Guidelines.

The Master Plan breaks down the general application of the Enterprise zone across the site and provides a more granular approach to land use planning with considerations made to the opportunities and constraints of the site. The structure plan is made up of key land uses which include enterprise and light industry, business and enterprise and employment zone centres. As outlined in the Economics Assessment, the Master Plan is expected to support 700 construction jobs per annum over six years (including 292 direct jobs and 408 indirect jobs) and 12,429 operational jobs (including 7,144 direct jobs and 5,285 indirect jobs).

Figure 2 Architectural Master Plan



Source: Master Plan Package Revision T (SBA Architects 2024, 23 May 2024)

Figure 3 Master Plan



Legend (Refer to plan on page across)

	Site Boundary		Planned Signalised Intersection
	Enterprise and Light Industry		Left in-Left out Intersection
	Local Centre		Rapid Public Transport Corridor
	Indicative Amenity Nodes: Restaurants/Cafés		Indicative Local Bus Network
	400m Radius		Zone Substation
	Roundabout		Open Space
	Active Transport Network - Shared Path (On Road)		Local Park
	Active Transport Network - Shared Path (Off Road)		Riparian Corridors
	Active Transport Network - Foot Path (On Road)		Retained HBV Vegetation within Development Lot
	Active Transport Network - Foot Path (Off Road)		Integrated Stormwater Basins
	Future ERR Underpass		Proposed Intersection to be Investigated
	Active Transport Network - Cycleway (On Road)		

Source: Urban Design Report, p. 63 (Urbis 2024)

1.4. AUTHORSHIP AND SIA DECLARATION

The authorship SIA Declarations for this report are provided in the following sections.

1.4.1.1. Authors

This report has been prepared by a suitably qualified and experienced lead author and reviewed and approved by a suitably qualified and experienced co-author, who hold appropriate qualifications and have relevant experience to carry out the SIA for this project. The following introduces each author:

Les Hems (review and quality assurance)

- Bachelor of Arts (Honours) Human Geography, University College of Wales
- Member, Australian Evaluation Society
- Founding Member, Social Impact Measurement Network of Australia
- Experience of reviewing and quality assurance of SIA reports in the context of the NSW SIA Guideline and best practice in social research, evaluation, and social impact measurement.

Sarah Braund (review and quality assurance)

- Master of Policy Studies, University of New South Wales
- Bachelor of Landscape Architecture, University of New South Wales
- Experience of reviewing and quality assurance of SIA reports in the context of the NSW SIA Guideline and best practice in social research, evaluation, and social impact measurement.

Gilbert Elliott (lead author)

- Bachelor of City Planning (Honours), University of New South Wales
- Member, Planning Institute of Australia (PIA)
- Experience in writing SIA reports for industrial and employment projects, in the context of the SIA Guideline (DPHI, 2023) and best practice social research, evaluation and impact measurement.

Sarah Kerridge-Creedy (co-author)

- Bachelor of City Planning (Honours), University of New South Wales (current)
- Student Member, Planning Institute of Australia (PIA)
- Experience in writing SIA reports for industrial and employment projects in the context of the SIA Guideline (DPHI, 2023) and best practice social research, evaluation and impact measurement.

1.4.1.2. Declaration

The authors declare that this SIA report:

- Was completed on 19 June 2024
- Has been prepared in accordance with the EIA process under the EP&A Act
- Has been prepared in alignment with DPHI's SIA Guideline
- Contains all reasonably available project information relevant to the SIA
- As far as Urbis is aware, contains information that is neither false nor misleading.



Gilbert Elliott
Senior Consultant, Community Planning
19 June 2024



Les Hems
Director, Community Planning
19 June 2024

1.5. SIA GUIDELINE REVIEW QUESTIONS AND RESPONSES

The SIA Guideline (contains review questions to assist with confirming that the requirements of the Guideline have been fulfilled when considering the scale of social impacts of the project. Table 1 below outlines these review questions and indicates how they have been addressed in this SIA.

Table 1 SIA Guideline review questions and responses

SIA Review questions	Addressed in report (yes/no)
Does the lead author meet the qualification and experience requirements?	Yes See Section 1.4
Has the lead author provided a signed declaration?	Yes See Section 1.4
Would a reasonable person judge the SIA report to be impartial, transparent and suitably rigorous given the nature of the project?	Yes
Project's social locality and social baseline	
Does the SIA report identify and describe all the different social groups that may be affected by the project?	Yes See Section 4
Does the SIA report identify and describe all the built or natural features that have value or importance for people, and explain why people value those features?	Yes See Section 4
Does the SIA report identify and describe historical, current, and expected social trends or social changes for people in the locality, including their experiences with this project and other major development projects?	Yes See Section 4
Does the social baseline study include appropriate justification for each element, and provide evidence that the elements reflect both relevant literature and the diversity of view and likely experiences?	Yes See Section 4
Does the social baseline study demonstrate social-science research methods and explain any significant methodological data or limitations?	Yes See Section 4
Identification and description of social impacts	
Does the SIA report adequately describe likely social impacts from the perspectives of how people may experience them, and explain the research used to identify them? When undertaken as a part of SIA scoping and initial assessment, has the plan for the SIA report been detailed?	Yes See Section 7 Report not undertaken for scoping
Does the SIA report apply the precautionary principle to identifying social impacts, and consider how they may be experienced differently by different people and groups?	Yes See Section 7

SIA Review questions	Addressed in report (yes/no)
Does the SIA report describe how the preliminary analysis influenced project design and EIS engagement strategy?	Yes See Sections 7 and 8 for recommendations on project design. Engagement activities were endorsed by the TAP.
Community engagement	
Were the extent and nature of engagement activities appropriate and sufficient or canvass all relevant views, including those of vulnerable or marginalised groups?	Yes See Section 5
How have the views, concerns and insights of affected and interested people influenced both the project design and each element of the SIA report?	Yes See Sections 4 – 7
Predicting and analysing social impacts	
Does the SIA report impartially focus on the most important social impacts to people at all stages of the project, without any omissions or misrepresentations?	Yes See Sections 4 and 7
Does the SIA report analyse the distribution of both positive and negative social impacts, and identify who will benefit and who will lose from the project?	Yes See Sections 7 and 8
Does the SIA report identify its assumptions, and include sensitivity analysis and alternate scenarios? (including 'worst-case' and 'no project' scenarios where relevant?)	The Master Plan has undergone co-designed with stakeholders through the TAP process where multiple options were developed.
Evaluating significance	
Do the evaluations of significance of social impacts impartially represent how people in each identified social group can expect to experience the project, including any cumulative effects?	Yes See Section 7
Are the evaluations of significance disaggregated to consider the likely different experiences for different people or groups, especially vulnerable groups?	Yes Section 7 considers how different people or groups are likely to experience benefits and impacts.

SIA Review questions	Addressed in report (yes/no)
Responses, monitoring and management	
Does the SIA report propose responses that are tangible, deliverable, likely to be durably effective, directly related to the respective impact(s) and adequately delegated and resourced?	Yes See Section 8
Does the SIA report demonstrate how people can be confident that social impacts will be monitored and reported in ways that are reliable, effective and trustworthy?	Yes See Section 8
Does the SIA report demonstrated how the proponent will adaptively manage social impacts and respond to unanticipated events, breaches, grievances and non-compliance?	Yes See Section 8

Source: SIA Guideline (DPHI 2023, p. 34-35)

1.6. STRUCTURE OF THIS REPORT

This SIA has eight chapters as summarised below:

- **Chapter 1** (this chapter) introduces the proposal, purpose and scope of this report.
- **Chapter 2** outlines the legislative requirements and methodology applied to complete this SIA.
- **Chapter 3** reviews the key findings and strategic directions from relevant state and local strategies and policies, as they relate to the Master Plan.
- **Chapter 4** provides a social baseline of the study area including the site's locality, social and demographic characteristics, and consultation outcomes.
- **Chapter 5** summarises the key findings from of the community and stakeholder consultation undertaken to inform the SIA.
- **Chapter 6** assesses the social infrastructure and open space required to meet the needs of the Master Plan's incoming worker population.
- **Chapter 7** assess the social impacts and benefits of the proposal, including with and without enhancement and mitigation measures.
- **Chapter 8** concludes the SIA by setting out a summary of the identified social impacts and benefits, risk rankings, mitigation, enhancement and management measures, and recommendations.

2. METHODOLOGY

This section outlines the methodology to prepare this assessment, with reference to the relevant legislative requirements and guidelines.

2.1. ASSESSMENT METHODOLOGY OVERVIEW

The following methodology was undertaken to prepare this SIA. The methodology was informed by the guidance contained within the SIA Guideline and Technical Supplement (DPHI 2023) and Liverpool City Council's Social Impact Assessment Policy and Guidelines (Liverpool City Council 2023).

Table 2 SIA Methodology

1. Background review	2. Engagement	3. Impact scoping	4. Assessment and reporting
<ul style="list-style-type: none">▪ Desktop review of surrounding land uses and site▪ Review of relevant state and local policies to understand potential implications of the Master Plan▪ Analysis of relevant data to understand the existing community.	<ul style="list-style-type: none">▪ Engagement with the local community letterbox drop to understand potential impacts.▪ Consultation with Liverpool City Council to understand potential social impacts.	<ul style="list-style-type: none">▪ Review of site plans and technical assessments▪ Review of engagement outcomes▪ Stakeholder and community consultation▪ Identification of impacted groups▪ Initial scoping of impacts.	<ul style="list-style-type: none">▪ Assessment social impact and benefits considering with and without mitigation and enhancement measures.▪ Provision of recommendations to enhance positive impacts, reduce negative impacts and monitor ongoing impacts.

2.2. APPROACH TO ASSESSING SOCIAL IMPACTS

The assessment of social impacts can be approached in several ways. The Technical Supplement of DPHI's SIA Guideline highlights a risk assessment methodology, whereby the significance of potential impacts is assessed by comparing the magnitude of an impact against the likelihood of the impact occurring.

The DPHI's risk assessment methodology is outlined Figure 4 overleaf and has been applied in this SIA.

Figure 4 Social impact significance matrix

		Magnitude level				
		1	2	3	4	5
Likelihood level		Minimal	Minor	Moderate	Major	Transformational
A	Almost certain	Low	Medium	High	Very high	Very high
B	Likely	Low	Medium	High	High	Very high
C	Possible	Low	Medium	Medium	High	High
D	Unlikely	Low	Low	Medium	Medium	High
E	Very unlikely	Low	Low	Low	Medium	Medium

Source: SIA Guideline: Technical Supplement (DPHI 2023, p. 13)

2.2.1. Likelihood and magnitude characteristics

The likelihood and magnitude levels are typically determined by subjective and objective components as this will depend on individual experiences, community perceptions and technical evaluations.

The likelihood level assesses the probability of the impact occurring impact, while the magnitude assesses the likely significance of the impact. The tables below are provided in the SIA Guideline and are used to inform each impact.

Table 3 Likelihood levels

Level	Definition
Almost certain	Define or almost definitely expected (e.g. has happened before on similar project).
Possible	High probability
Unlikely	Medium probability
Possible	Low probability
Very unlikely	Improbable or remote probability

Source: SIA Guideline: Technical Supplement (DPHI 2023, p. 12)

Table 4 Magnitude levels

Magnitude level	Meaning
Transformational	Substantial change experienced in community wellbeing, livelihood, infrastructure, services, health, and/or heritage values; permanent displacement or addition of at least 20% of a community.
Major	Substantial deterioration/improvement to something that people value highly, either lasting for an indefinite time, or affecting many people in a widespread area.
Moderate	Noticeable deterioration/improvement to something that people value highly, either lasting for an extensive time, or affecting a group of people.
Minor	Mild deterioration/improvement, for a reasonably short time, for a small number of people who are generally adaptable and not vulnerable.
Minimal	Little noticeable change experienced by people in the locality.

Source: SIA Guideline: Technical Supplement (DPHI 2023, p. 13)

Table 5 Dimensions of social impact magnitude

Dimension	Explanation
Extent	Who specifically is expected to be affected (directly, indirectly, and/or cumulatively), including any vulnerable people? Which location(s) and people are affected? (e.g., near neighbours, local, regional, future generations).
Duration	When is the social impact expected to occur? Will it be time-limited (e.g., over particular project phases) or permanent?
Intensity or scale	What is the likely scale or degree of change? (e.g., mild, moderate, severe)
Sensitivity or importance	How sensitive/vulnerable (or how adaptable/resilient) are affected people to the impact, or (for positive impacts) how important is it to them? This might depend on the value they attach to the matter; whether it is rare/unique or replaceable; the extent to which it is tied to their identity; and their capacity to cope with or adapt to change.
Level of concern / interest	How concerned/interested are people? Sometimes, concerns may be disproportionate to findings from technical assessments of likelihood, duration and/or intensity.

Source: SIA Guideline: Technical Supplement (DPHI 2023, p. 12)

2.2.2. Mitigation and enhancement measures



Social impacts are assessed before and after the implementation of mitigation measures (for negative social impacts) and enhancement measures (for social benefits). These measures can take different forms and may be incorporated in the design, planning, construction, or operational stage of the proposed development.



3. POLICY CONTEXT

A review of relevant state and local policies was undertaken to understand the strategic context of the proposed development and any potential impacts. The full list of documents reviewed is provided in the References section of this report.

A summary of key findings relating to the potential social impacts of the Master Plan is provided below.

Table 6 Regional planning context

Theme	Summary of findings
<p>Providing complementary land uses around the Western Sydney Airport</p> 	<ul style="list-style-type: none"> ▪ Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis is a planning priority within the Western City District Plan (the District Plan) (DPHI 2018). ▪ The Western Sydney Aerotropolis Precinct Plan (the Precinct Plan) (DPHI 2023) estimates that the Aerotropolis Core could accommodate 50,000 to 60,000 jobs, leveraging the positive economic impact of the adjacent Western Sydney Airport. ▪ The Precinct Plan also notes that the Aerotropolis Core will provide a range of industry specific employment opportunities including advanced manufacturing, research and development, professional services, creative industries and STEM focused education facilities. The Precinct will also facilitate the establishment of an aerospace and defence industries sub-precinct by enabling 24/7 operations of the Western Sydney Airport. ▪ The Precinct Plan indicates that residential areas must be strategically located in areas that are less affected by aircraft noise, with future residential areas in the Aerotropolis Core located close to the future Metro station.
<p>Importance of open space and social infrastructure planning</p> 	<ul style="list-style-type: none"> ▪ The Western Sydney Aerotropolis Social Infrastructure Needs Assessment (the WSA Social Infrastructure Assessment) (GHD 2022) recognises the important role of social infrastructure and open space in creating new communities within the Aerotropolis that people will live, work and visit. ▪ The WSA Social Infrastructure Assessment provides 12 principles to guide the planning, design and operation of social infrastructure. Some of these principles are that social infrastructure should be affordable and accessible, equitably distributed, centrally and co-located, multipurpose and adaptable, and integrated as a network of services. ▪ Aligning open space with waterways to create blue-green infrastructure is a priority across the Western Sydney Aerotropolis, as noted in the Western Sydney Aerotropolis Open Space Needs Study (DPHIa 2021). This will be delivered by extended and strengthening the existing blue-green corridor by linking the north-south creek systems with the east-west green connections between precincts. ▪ The WSA Social Infrastructure Assessment indicates that open space should be accessible to centres, residents, workers and visitors by ensuring the distribution and quantum of open space provides equitable access for people living or working employment and residential areas.

Theme	Summary of findings
<p>Recognising and celebrating Aboriginal culture</p> 	<ul style="list-style-type: none"> ▪ The WSA Social Infrastructure Needs Assessment recognises opportunities for social infrastructure and open spaces to reflect and reinforce local culture, strengthening the sense of community and connecting with Country. ▪ The Assessment also identifies Indigenous specific infrastructure to be provided within the Aerotropolis. This includes a cultural centre, yarning circles, an employment/training/ education hub and an agribusiness innovation hub with dedicated spaces for Aboriginal traditional practises.
<p>Minimising the urban heat island effect</p> 	<ul style="list-style-type: none"> ▪ The District Plan aims to mitigate the urban heat island effect by extending tree canopy and retaining water in the landscape. ▪ South Creek is identified as a defining spatial element in the District Plan. Retaining more water in the landscape is identified as a method to mitigate the urban heat island effect and manage flows of stormwater. ▪ Creating continuous corridors of public open space and expanding the urban tree canopy is a planning priority within the District Plan, intending to deliver green grid connections across the Parkland City and mitigate urban heat for future and existing residents and workers.

4. SOCIAL BASELINE

This chapter provides a summary of the baseline information and key social conditions in the study area for the Project that contribute to the identified social impacts and benefits.

4.1. SITE LOCATION

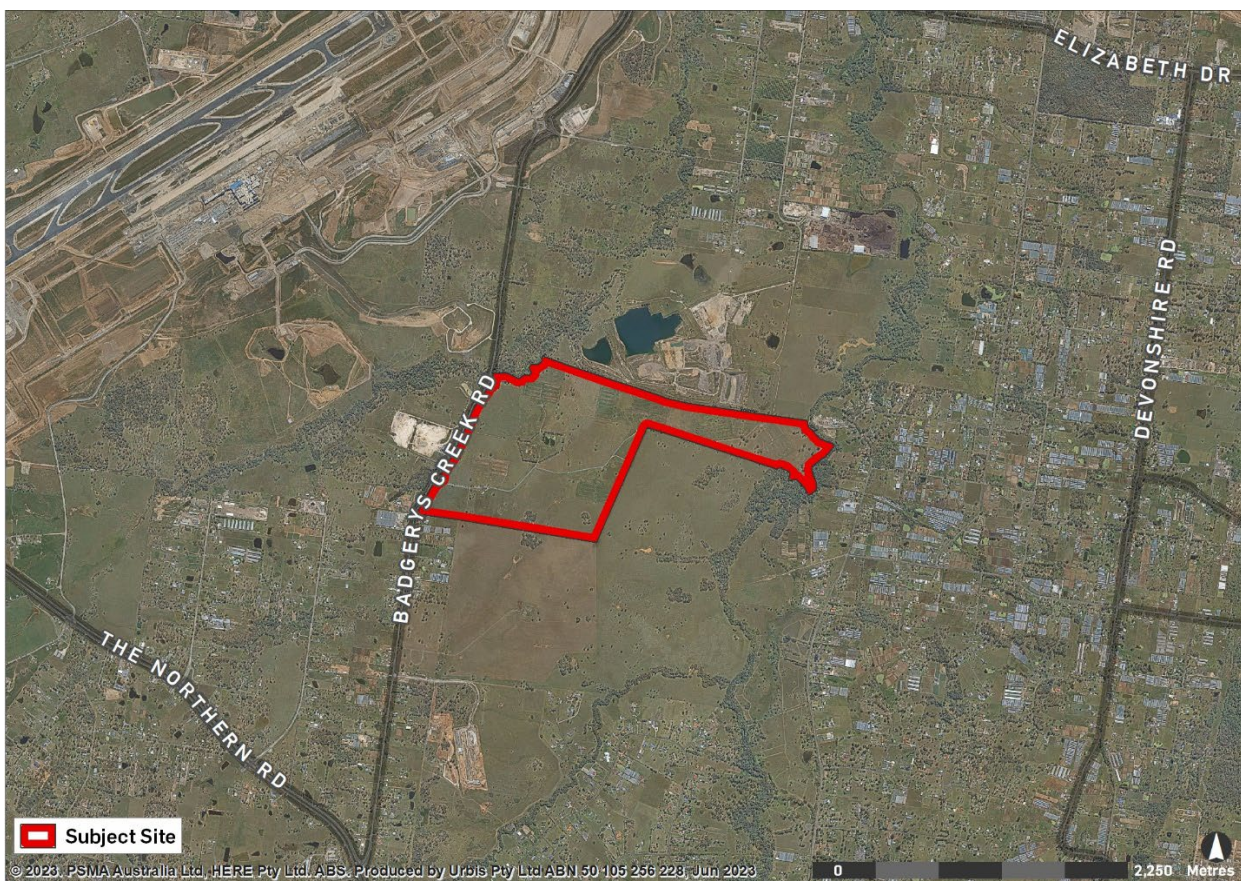
4.1.1. Local context

The site is located within the suburb of Bradfield and the Liverpool local government area (LGA) and comprises 184 hectares of land. The site was formerly used by Ingham's as a chicken farm, with the associated sheds and ancillary structures now demolished. It now consists largely of grassland and has cattle agisted on the site.

The site has a direct interface with the Western Sydney International Airport and is bound by two significant riparian corridors, with South Creek to the east and Badgerys Creek to the north-west, plus a central spine. The immediate surroundings of the site are characterised by large rural-residential landholdings used predominately for agricultural and light manufacturing purposes.

An aerial photograph showing the site and existing surrounding development in Figure 5.

Figure 5 Aerial photograph of the site and existing surrounding development



Source: Urbis

4.1.2. Western Sydney Aerotropolis context

The site is located within the Western Sydney Aerotropolis (the Aerotropolis) which comprises 11,200 hectares and surrounds the Western Sydney Airport. The strategic planning framework for the Aerotropolis divides the Aerotropolis into 10 precincts. Five of these precincts are the focus of initial precinct planning, with the remaining five precincts to be investigated in the future. While the indicative timeframe for

the completion of development within the initial precincts is 20 years, the timeframe for development within the remaining precincts has not been announced.

Table 7 Summary of Western Sydney Aerotropolis precincts

Initial precincts	Remaining precincts
<ul style="list-style-type: none"> ▪ Aerotropolis Core ▪ Agribusiness ▪ Badgerys Creek ▪ Northern Gateway ▪ Wianamatta-South Creek ▪ Mamre Road* 	<ul style="list-style-type: none"> ▪ Dwyer Road ▪ Kemps Creek ▪ North Luddenham ▪ Rossmore

Source: Western Sydney Aerotropolis Plan (Western Sydney Planning Partnership 2020, p. 6)

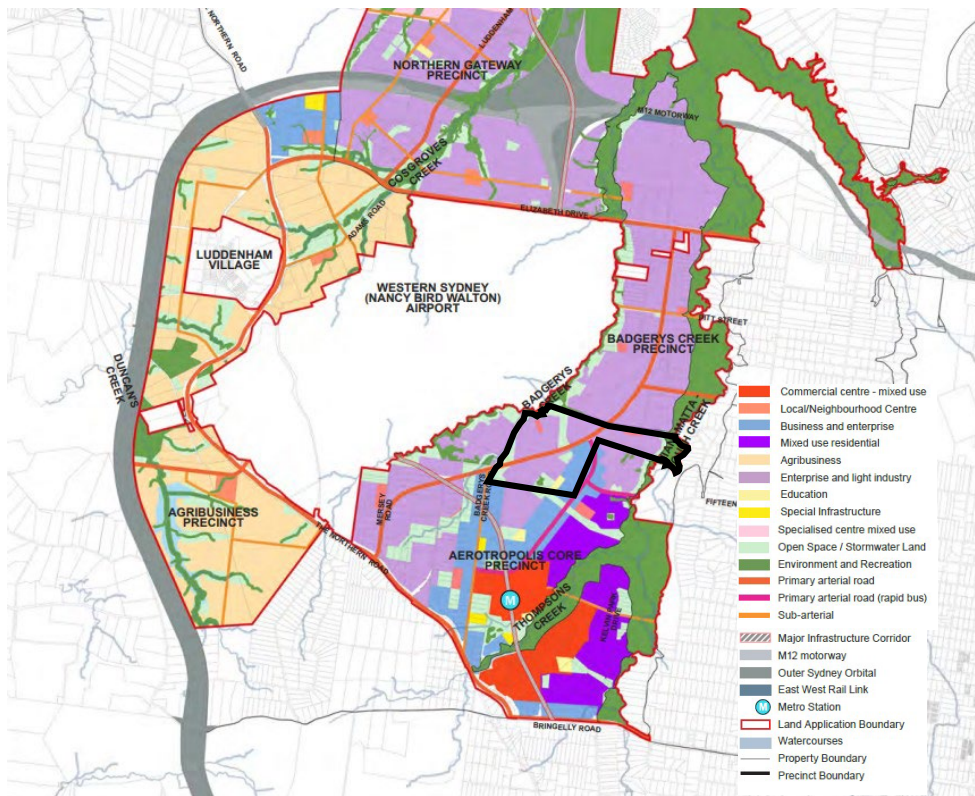
* The Mamre Road Precinct has already been zoned under WSEA SEPP and is not included in precinct planning

The site sits within the Aerotropolis Core Precinct, which is one of the five initial precincts. The Aerotropolis Precinct Plan (which only considers the five initial Aerotropolis Precincts) identifies the vision for this Precinct. This includes providing a range of employment land uses that will benefit from proximity to the Western Sydney Airport, with a focus on advanced manufacturing, research and development, professional services, creative industries and science, technology, engineering and mathematics (STEM). These new employment land uses will provide approximately 50,000 to 60,000 jobs. The Aerotropolis Core Precinct will include residential development in areas not significantly affected by aircraft noise.

The site is also located close to the Rossmore Precinct, with Wianamatta-South Creek acting as a buffer between the Precinct and the eastern panhandle of the site. The Rossmore Precinct, which is one of the remaining precincts and is yet to be rezoned, is expected to include mixed-use communities with a diversity of housing and maximising access to retail, cultural and community services.

The location of the site within the Western Sydney Aerotropolis is shown in Figure 6.

Figure 6 Location of the site within the Western Sydney Aerotropolis



Source: Western Sydney Aerotropolis Precinct Plan (DPHI 2023)

4.1.3. Site location implications for the SIA

- The site is located within the suburb of Bradfield and the Aerotropolis Core Precinct, which is one of the initial precincts to be redeveloped. Aligned with the vision in the Western Sydney Aerotropolis Precinct Plan (the Precinct Plan), the existing rural-residential, agricultural and light manufacturing uses within this area will be redeveloped into higher intensity employment uses, including enterprise and light industry and business and enterprise. As a result, it is unlikely that future redevelopment on the IPG site will impact these existing Bradfield residents.
- The western panhandle of the site is located close to rural-residential, agricultural and light manufacturing land uses in the suburb of Kemps Creek, which is located within the Rossmore Precinct of the Aerotropolis. As the Rossmore Precinct is one of the remaining precincts and does not yet have a timeframe for redevelopment, residents are likely to remain in this area and may experience social impacts associated with redevelopment of the IPG site. This may include noise and air quality impacts during construction and operation.

4.2. DEMOGRAPHIC PROFILE

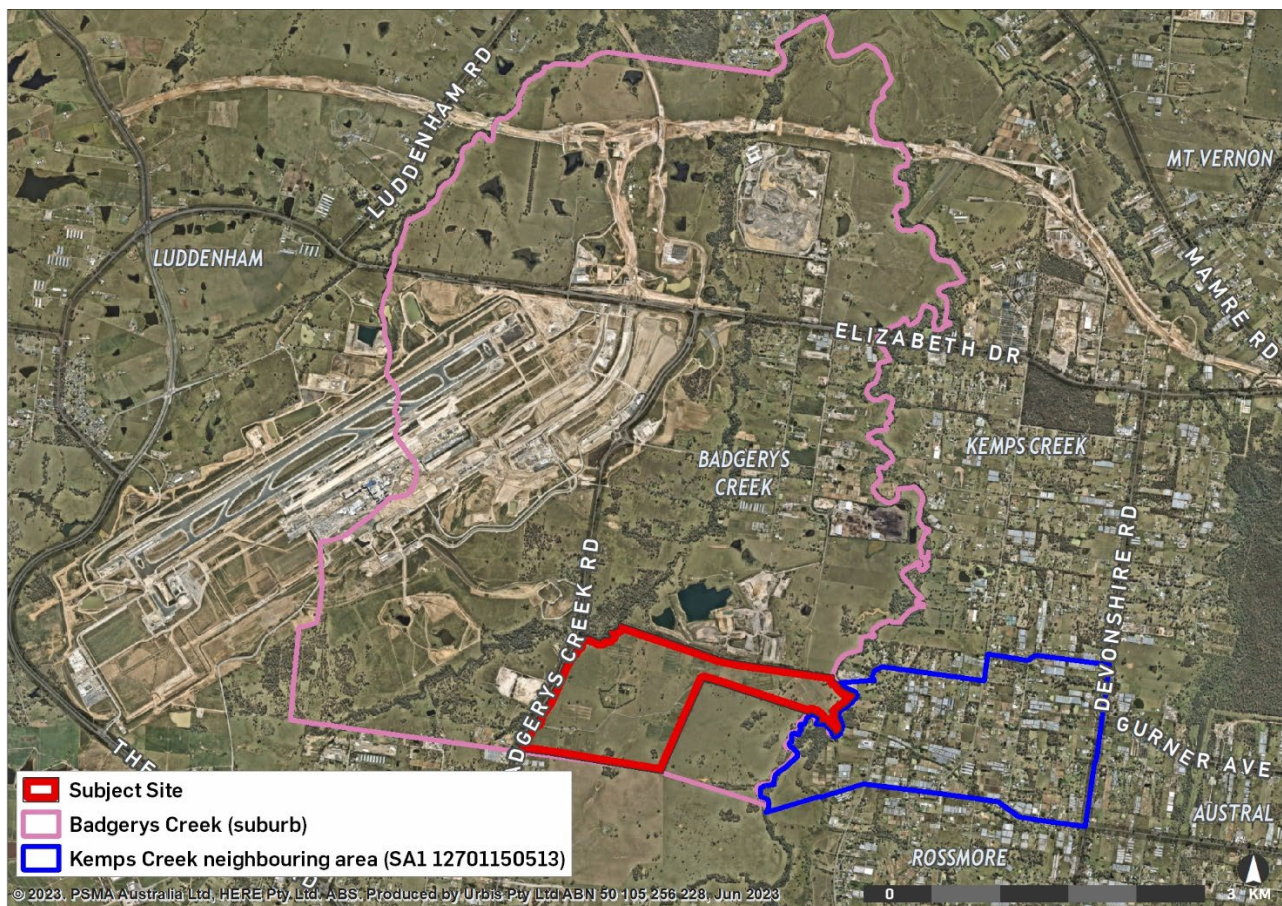
A community profile identifies the demographic and social characteristics of a proposal's likely area of social influence. This is an important tool in understanding how a community currently lives and that community's potential capacity to adapt to changes arising from a proposal.

The following two community profiles have been prepared for this project:

- **Badgerys Creek (suburb).** This community profile captures the key demographic characteristics of the existing residents living north and west of the site. As noted in Section 4.1.3, many residents have left this suburb, with this trend likely continue in the future as development sites are acquired. The suburb of Badgerys Creek has been used as the suburb of Bradfield was gazetted occurred post the ABS 2021 Census, and therefore no demographic data is currently available for this geography.
- **Kemps Creek neighbouring area.** This area relates to the rural-residential, agricultural, and light manufacturing uses close to the western panhandle of the site. As noted in Section 4.1.3, this community is likely to remain in the area until planning is progressed and therefore may experience social impacts associated with the redevelopment of the site. The Statistical Area 1 (SA1) 12701150513 has been used to capture key the demographic characteristics of this community.

Both areas are shown in Figure 7.

Figure 7 Demographic boundaries applied to the community profile

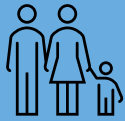


Source: Urbis

The community profiles utilise demographic data from the Australian Bureau of Statistics (ABS) Census of Population of Housing and NSW population projections for NSW (DPHI 2022). The demographic characteristics of Liverpool LGA and Greater Sydney have been used, where relevant, to provide a comparison.

4.2.1. Badgerys Creek suburb

In 2021, there were 168 people living in Badgerys Creek. Key characteristics of this community include:



Parents and homebuilders' population

Badgerys Creek has a high median age of 40, compared to Liverpool LGA (34) and NSW (37). The dominant service age group in Badgerys Creek is parents and homebuilders aged 35 to 49 (19%).



Culturally and linguistically diverse

Almost half of Badgerys Creek and Liverpool LGA residents were born overseas (both 49%). The top three countries of birth in Badgerys Creek are China (13%), Italy (6%), and Malta (5%).



High proportion of home ownership and separate houses

All Badgerys Creek residents live in a separate house (100%) and almost half own their home outright (45%). Compared to Liverpool LGA (73% and 23% respectively) and NSW (56% and 28% respectively).



Mix of employment industries

Almost half of Badgerys Creek residents are employed as managers (49%). The top three industries of employment are vegetable growing (outdoors) (21%), state government administration (11%), and other heavy and civil engineering construction (9%).



Lower educational attainment

A smaller proportion of Badgerys Creek residents completed higher education beyond high school (27%), compared to Liverpool LGA (43%) and Greater Sydney (55%).

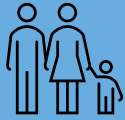


Steady population decline

Badgerys Creek population has been declining due to public and private sector land acquisition of rural-residential properties to facilitate the development of the Western Sydney Aerotropolis. The number of permanent residents declined by 63% from 455 residents in 2011 to 168 residents in 2021.

4.2.2. Kemps Creek neighbouring area

In 2021, there were 428 people living in Kemps Creek SA1 12701150513 (referred to as Kemps Creek (SA1)). Key characteristics of this community include:



Parents and homebuilders' population

Kemps Creek (SA1) has a higher median age of 40, compared to Liverpool LGA (34) and Greater Sydney (37). The dominant service age group is parents and homebuilders aged 35 to 49 (18%).



Culturally and linguistically diverse

Almost half of Kemps Creek (SA1) residents were born overseas (39%), and more than half speak a language other than English at home (55%), similar to Liverpool LGA (49% and 64% respectively). The top three languages spoken are Arabic (15%), Cantonese (8%) and Italian (6%).



Lower educational attainment

A smaller proportion of Kemps Creek (SA1) residents completed higher education beyond high school (36%), compared to Liverpool LGA (43%) and Greater Sydney (55%).



Mix of employment industries and higher rate of unemployment

The top industries of employment in Kemps Creek (SA1) are vegetable growing (outdoors) (10%), road freight transport (7%) and house construction (5%). Kemps Creek (SA1) also has a higher rate of unemployment (9%), compared to Liverpool LGA (7%) and Greater Sydney (5%).



Long term health conditions

Kemps Creek (SA1) has a higher proportion of residents with long-term health conditions (39%), compared to Liverpool LGA (34%) and Greater Sydney (35%). The top long term health conditions in Kemps Creek (SA1) are arthritis (9%), diabetes (8%) and asthma (7%).



Established community

More than half of Kemps Creek (SA1) households remained at their same address between 2016 and 2021 (59%). More than half of Kemps Creek (SA1) households own their home, either outright or with a mortgage (58%), similar to Liverpool LGA (62%) and Greater Sydney (61%).

4.2.3. Demographic profile implications for the SIA

- It can be assumed that most of the Bradfield / Badgerys Creek community has been relocated to accommodate the strategic change in land uses. It is therefore unlikely that the existing Bradfield / Badgerys Creek community will be impacted by the proposal.
- As the Kemps Creek neighbouring area has a more established community and timing for its rezoning has not yet been identified in strategic plans, it is likely this community will remain during the construction and potentially operational stages of the proposal. Potential health and wellbeing impacts on this community resulting from the construction and operation of the proposal (such as dust and noise) will need to be considered, particularly as over a third of residents are living with at least one long-term health condition.

4.3. CRIME PROFILE

As part of the community profile, data from the NSW Bureau of Crime Statistics and Research (BOCSAR) was analysed on 12 June 2023 to understand the crime and safety context around the site. As crime data for Bradfield is currently not available, data for Badgerys Creek suburb has been applied. Data for Liverpool LGA and NSW has also been applied to help assess risk compared to LGA and state-wide averages.

Key crime findings relevant to this assessment include:

- The most recent crime data (April 2022 to March 2024) indicates Badgerys Creek's small population and largely undeveloped landscape makes the rates of crime per 100,00 people too low to identify clear rates of crime or two-year trends. At the time of writing (June 2024) hotspot crime data was not available on the BOCSAR website.
- However, as the site is developed, there is potential for Badgerys Creek to become susceptible to similar crimes that are being experienced in the Liverpool LGA. 'Motor vehicle theft' and 'steal from motor vehicle' was the only relevant offences that were higher in Liverpool LGA, compared to NSW in the year between March 2023 and March 2024.
- Two-year crime trends from April 2022 to March 2024 indicates that 'motor vehicle theft' (26% per year) and 'non-domestic assault' (+ 8% per year) offences have increased in the Liverpool LGA. These types of crimes and those who are likely to be impacted by them, should be considered as part of the design and operation of the proposal.

4.3.1. Crime and safety implications for the SIA

- Badgerys Creek's low rates of crime can be attributed to the areas current rural agricultural land uses and small population. However, this is expected to change as the land use transitions to accommodate light industrial and business enterprise land uses that will support a new worker population. As the proposal is within Liverpool LGA, there is potential for the proposal to be susceptible to the types of crimes being experienced in the local area.
- Established industrial areas and large open spaces with low pedestrian activity generally have increased incidents of crime due to the lack of passive surveillance that is provided by pedestrian activity and a greater diversity of land uses. As the proposal will be developing a new industrial area that will operate 24/7, a key consideration will be designing, managing, and maintaining safe access to, from, through and around the site by minimising potential levels of actual and perceived levels of crime. To maintain adequate passive surveillance across the site, future development should give consideration the design of facades, ground floor uses, car parking areas and the main pedestrian and vehicular entrances to individual sites and how they interact with the public domain.

4.4. AREA OF SOCIAL INFLUENCE

As discussed throughout this section, many Bradfield residents have left the area as planning and development of the Aerotropolis progresses. Considering this, the area of social influence is mostly confined to the existing individuals and businesses located in Kemps Creek, the Liverpool LGA and the Western Sydney region. Within the areas of social influence, the following individuals and communities are likely to be impacted by the proposal.

During construction:

- Local Aboriginal and Torres Strait Islander Peoples
- Individuals and businesses still located in Bradfield
- Individuals and businesses located east of the site in Kemps Creek.

During operation:

- Local Aboriginal and Torres Strait Islander Peoples
- Individuals and businesses located east of the site in Kemps Creek
- Workers in the construction industry in Western Sydney
- Workers in the logistics, manufacturing, wholesale trade, office and retail industries in Western Sydney

- Customers, visitors, and other individuals using the site.

5. SIA CONSULTATION

This section provides an overview of the community and stakeholder consultation undertaken to inform the SIA. The purpose of the consultation was to share information and consult to collect information and insights.

5.1. CONSULTATION WITH LIVERPOOL CITY COUNCIL

Urbis held a videoconference with representatives from Liverpool City Council's social planning, strategic planning and city design and public domain teams on 18 May 2023. The purpose of the meeting was to discuss social impact and crime and safety considerations of the proposed Master Plan.

A summary of the discussion is provided below:

Worker amenities

- Future workers will require access to a range of facilities and services to support their needs. The following facilities and services were identified:
 - High quality breakout spaces within park settings with seating, picnic amenities and shaded areas
 - A private medical centre, with the centre having extended operating hours to cater to shift workers
 - Childcare facilities
 - A multipurpose community space which could be used for business activities, programs and events, as well as for broader community use.

Emergency services

- Information should be provided on how the site will be serviced in the future by emergency services (Police, Ambulance, Fire, SES)

Open space and active transport links

- Active transport links should be incorporated into linear open space and riparian corridors. Consideration should also be given to how these links connect to broader active transport corridors to facilitate access from the IPG Badgerys Creek site to other surrounding centres (i.e. Bradfield).
- Linear open space and riparian corridors must be safe for workers and visitors throughout the day and during the night.
- Consider place-making opportunities for these spaces such as food trucks and pop-up cafes.
- Public transport will need to be provided to and from the site.

Community engagement

- Engagement with the local community will need to be undertaken to understand potential social impacts and benefits of the proposed Master Plan and subsequent development from their perspective.

5.2. CONSULTATION WITH EMERGENCY SERVICES AGENCIES

As outlined above, Council requested that Urbis contact emergency services agencies to understand how these agencies would service the Aerotropolis and the site. Urbis sent emails to NSW Police, NSW Fire and Rescue (FRNSW), NSW Rural Fire Service, NSW Ambulance and NSW State Emergency Service (SES) on 21 June 2023. The email included questions about how these emergency services agencies would service the Aerotropolis and the emergency service facilities recommended in the WSA Social Infrastructure Needs Assessment (GHD 2022).

At the time of writing, NSW Ambulance, NSW SES and FRNSW provided a response. These responses are summarised below.

NSW Ambulance

- NSW Ambulance uses international standard modelling to determine the current and future growth demand for ambulance services. This method is outlined in the WSA Social Infrastructure Needs Assessment (GHD 2022).

- The NSW Government has allocated funding to a new Ambulance station in Aerotropolis/Luddenham. A site has not yet been determined. Ambulance NSW service planning indicates this facility should comprise an eight ambulance bay facility (this is lower than the WSA Social Infrastructure Assessment which identifies the requirement for a 12 bay facility).

NSW SES

- NSW SES advised it will require a presence in the Western Sydney Aerotropolis to support improved response times to the area. This is important given the expected increase in residential and transient worker populations in the Aerotropolis, and as a substantial proportion of land within the Aerotropolis is flood prone.
- SES advised consultation between a range of stakeholders, including Liverpool City Council, is required to understand funding arrangements, building design and land availability for a future NSW SES Headquarters in the Aerotropolis.

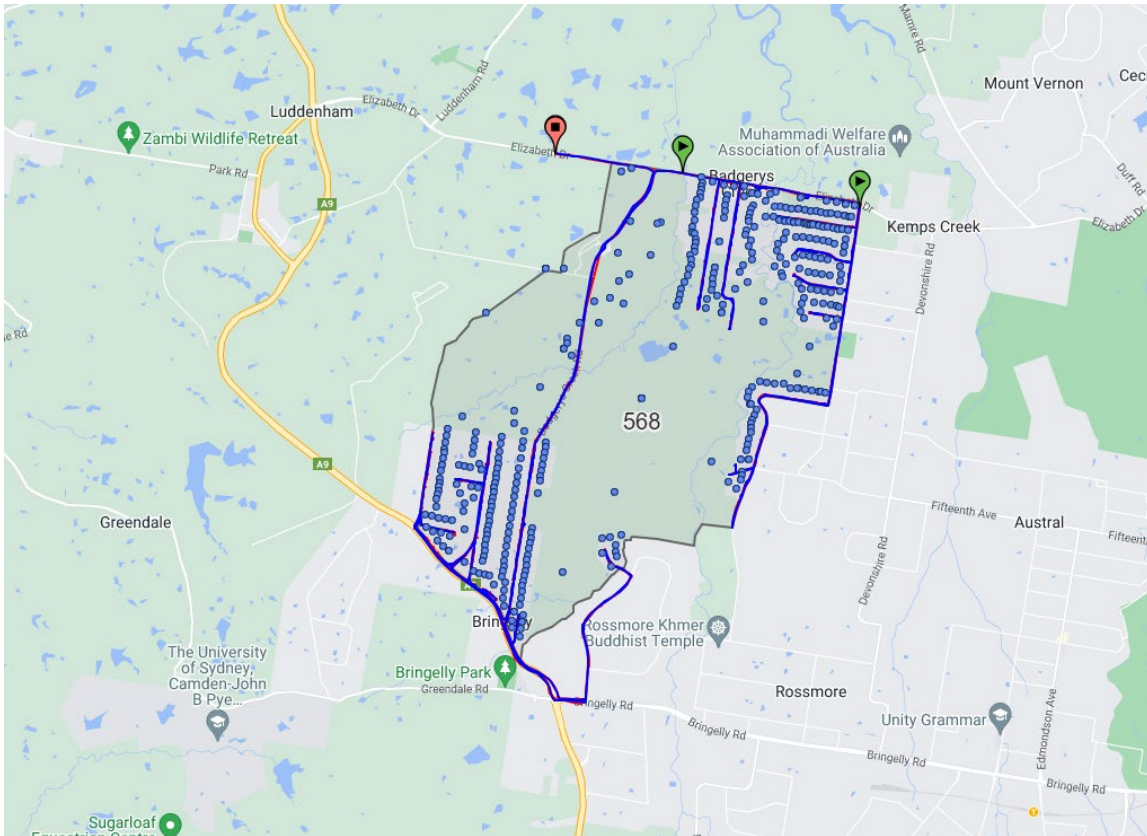
Fire and Rescue NSW

- FRNSW noted the whole area around the WSA, including the Airport itself, is currently NSW Rural Fire Service (RFS) jurisdiction. It is expected that as urban development occurs over time this will likely change and transfer to FRNSW responsibility.
- FRNSW advised that the four new fire stations proposed in the WSA Social Infrastructure Needs Assessment (which are now referred to as Badgerys Creek, Bradfield City Orchard Hills / Erskine Park, and North Rossmore) are still aligned with current planning. All stations are planned to have full-time, permanent firefighters attached, staffing the stations 24/7.
- FRNSW noted that the first station at Badgerys Creek is intended to open to align with opening of the Airport (subject to funding and the acquisition of an appropriate site) to service it as well as the surrounding development areas, in conjunction with the RFS. The facility may have multiple fire appliances (trucks) with specialist capabilities such as heavy rescue. The other FRNSW stations will come online as the development, demand and funding require. It should be noted that a fire station is not proposed on the site and is not earmarked for the site in the WSA Social Infrastructure Needs Assessment or the Precinct Plan.
- FRNSW advised that the site would be appropriately serviced by the planned fire station network.

5.3. ENGAGEMENT WITH THE LOCAL COMMUNITY

Urbis prepared a newsletter to inform the surrounding community of the development and to obtain their feedback on potential social impacts and benefits. This newsletter was distributed to approximately 568 properties on 29 June 2023 (see Figure 8). The community newsletter is provided in Appendix B of this SIA.

Figure 8 Community newsletter distribution area



The newsletter was also provided to the Independent Community Commissioner for the Western Sydney Aerotropolis who distributed the newsletter to members of the Western Sydney Aerotropolis Community Consultative Committee (CCC) via email on 29 June 2023.

At the time of writing this report, no community feedback in relation to social impacts or benefits has been received.

6. SOCIAL INFRASTRUCTURE AND OPEN SPACE ASSESSMENT

This section provides an assessment of the likely social infrastructure and open space required to meet the needs of the incoming worker population of the Master Plan. It considers the existing social infrastructure and open space network, social infrastructure and open space recommended for the Western Sydney Aerotropolis as part of the Aerotropolis Planning Package, quantitative benchmarks, and outcomes from the consultation with representatives from Liverpool City Council.

The types of social infrastructure assessed include education institutions, health facilities and services, community facilities, childcare centres, cultural facilities, sport and recreation facilities and open space. The assessment primarily focuses on 'hard' social infrastructure which is generally considered to include the buildings and spaces which serve a social need.

6.1. EXISTING SOCIAL INFRASTRUCTURE AND OPEN SPACE

It is important to consider existing social infrastructure and open space provision when planning for new developments.

The Western Sydney Aerotropolis Social Infrastructure Audit (GHD 2021) which was prepared as part of the Aerotropolis Planning Package indicates there is no existing social infrastructure and open space within the Aerotropolis Core Precinct. This is expected as the large landholdings comprising agricultural and light manufacturing land uses within this Precinct means there is only a small residential population.

The closest existing social infrastructure and open space to the site is in the Rossmore and Kemps Creeks Precincts to the east and the Dwyer Road Precinct to the south west. This infrastructure mostly comprises childcare and primary schools.

6.2. OVERVIEW OF RECOMMENDED SOCIAL INFRASTRUCTURE AND OPEN SPACE FOR THE AEROTROPOLIS CORE PRECINCT

The Western Sydney Aerotropolis Social Infrastructure Needs Assessment (GHD 2022) recommends a range of new social infrastructure and open space to be provided in the Aerotropolis and contains maps showing the indicative locations for this infrastructure.

Table 8 below provides a summary of these recommendations, including any social infrastructure and open space recommended for the site area. Maps showing the indicative locations of social infrastructure and open space are contained in Appendix A of this SIA.

Table 8 Summary of recommended social infrastructure provision for the Aerotropolis Core Precinct from the WSA Social Infrastructure Needs Assessments (GHD 2022).

Facility	Summary of demand (2056) for Aerotropolis Core Precinct as outlined in the WSA Social Infrastructure Needs Assessment (GHD 2022)	Infrastructure recommended for the site in the WSA Social Infrastructure Needs Assessments (GHD 2022)
Education	Equivalent demand of up to 1.0 Primary School Equivalent demand of up to 0.5 Secondary School Innovation facility opportunity such as an Environmental Education Centre or Centre of Excellence Potential additional demand for schools for specific purpose	A small area within the site is earmarked for an education land use. The type of education facility envisaged for the site is unclear given its location in an employment zone with no nearby residential uses. The remainder of the education infrastructure is recommended for the Bradfield City Centre.

Facility	Summary of demand (2056) for Aerotropolis Core Precinct as outlined in the WSA Social Infrastructure Needs Assessment (GHD 2022)	Infrastructure recommended for the site in the WSA Social Infrastructure Needs Assessments (GHD 2022)
	One Vocational Education and Training (VET) facility	
Health	<p>One community health facility / integrated health hub (IHHub).</p> <p>Specialised Indigenous Health Facility</p> <p>Aerotropolis Ambulance Station with 12 bays.</p>	<p>None recommended within the site area.</p> <p>The specialised Indigenous health facility, community health facility and IHHub is recommended for the Bradfield City Centre.</p> <p>The recommended location for the ambulance station is on land adjacent to the site area.</p>
Emergency services	<p>Aerotropolis Core Fire Station</p> <p>One police station</p> <p>One new courthouse attached to the Police Station as part of the establishment of a Justice Precinct</p>	<p>None recommended within the site area.</p> <p>The Aerotropolis Core Fire Station is recommended on land south of the site.</p> <p>The police station and courthouse are recommended for the justice precinct within the Bradfield City Centre.</p>
Community facilities	<p>Three local community spaces</p> <p>One district community centre co-located with the district library.</p>	<p>None recommended within the site area.</p> <p>Local community facility spaces are recommended for the Bradfield City Centre.</p>
Childcare	<p>One council owned childcare centre.</p> <p>One Aboriginal and Torres Strait Islander childcare centre.</p> <p>14 private childcare centres provided by the private sector.</p> <p>Need to allow for four OOSH facilities provided by the private sector</p>	<p>One private childcare centre recommended for the site.</p> <p>The remainder of childcare centres are recommended for the Bradfield City Centre and across Aerotropolis Core Precinct.</p>
Aged care	<p>Residential aged care (moderate to high need care): 122 places</p> <p>Residential aged care (low care needs): 147 places</p> <p>Community care: 6 places</p> <p>Short term restorative care: 61 places</p>	<p>None recommended within the site area.</p> <p>The aged care facilities are recommended for the Bradfield City Centre.</p>

Facility	Summary of demand (2056) for Aerotropolis Core Precinct as outlined in the WSA Social Infrastructure Needs Assessment (GHD 2022)	Infrastructure recommended for the site in the WSA Social Infrastructure Needs Assessments (GHD 2022)
Cultural facilities	Two local cultural facilities. Aboriginal cultural infrastructure facility Aboriginal Arts and Cultural Centre Cultural Performance Centre	None recommended within the site area. The cultural facilities are recommended for the Bradfield City Centre.
Library	Two district libraries (one co-located to maker spaces and / or community services and the other is a joint library with the Multiversity). One branch library	None recommended within the site area. The district and branch libraries are recommended for the Bradfield City Centre.
Sports fields	One football field Two district sports field (2 x rectangles and 1 x oval) One indoor sports facility Two indoor aquatic / swimming facilities Two youth focussed outdoor recreation facilities	Two district sportsfield / sport courts recommended for the site. The remainder of sportsfields recommended for the Bradfield City Centre and across Aerotropolis Core Precinct.
Open space	14 local parks (min size 0.5ha) Four district parks (average size >5ha, minimum size 2ha) Central Wianamatta Park (105 ha)	Two district parks recommended for the site. The local parks and remainder of district parks recommended throughout the Aerotropolis Core Precinct.

Source: Western Sydney Aerotropolis Social Infrastructure Needs Assessment (GHD 2022, p. 96-97)

6.3. SOCIAL INFRASTRUCTURE AND OPEN SPACE NEEDS FOR THE SITE

A summary of the social infrastructure and open space needs for the site is outlined below. It considers the recommended social infrastructure and open space (see Section 6.2), quantitative benchmarks and outcomes from the consultation with representatives from Liverpool City Council.

6.3.1. Libraries and cultural facilities

Libraries typically cater to a large population. They should be located in areas with high pedestrian activity and have good visibility from the street. The co-location of libraries with other social infrastructure such as community health centres, community centres, cultural spaces and retail areas can provide a more efficient use of space and are therefore best suited in large mixed-use centres.

6.3.1.1. Overview of needs

As identified in Table 8, the WSA Social Infrastructure Needs Assessment (GHD 2022) recommends two district libraries and one branch library for the Aerotropolis Precinct. The report also recommends a range of

cultural facilities, including two local cultural facilities, an Aboriginal cultural infrastructure facility, an Aboriginal arts and cultural centre and a cultural performance centre. The indicative locations for the libraries and cultural facilities are all within the Bradfield City Centre, which is appropriate given its role as the major centre within the Aerotropolis.

The WSA Social Infrastructure Needs Assessment (GHD 2022) also contains benchmarks of 1 branch library per 20,000 people and 1 cultural space per 20,000 people. While incoming worker population (5,242 workers) will not generate demand for either type of infrastructure, it will contribute to cumulative demand for these facilities.

It is expected the incoming worker populations' needs for libraries and cultural facilities will be met by the infrastructure recommended for the Bradfield City Centre.

6.3.1.2. Recommendations

Given libraries and cultural facilities to service the Aerotropolis Core Precinct population are recommended for the Bradfield City Centre, provision of a library or cultural facility on the site is not recommended.

6.3.2. Community centres

While the need for community centres between residents and workers differ, both groups typically seek a space which could support casual hire for programs, activities and events. For workers, this could be a space which is accessible during business hours to support work programs, or a space after hours to undertake study or personal activities before commuting home.

6.3.2.1. Overview of needs

As identified in Table 8, the WSA Social Infrastructure Needs Assessment (GHD 2022) recommends three local community spaces and one district community centre (co-located with a district library) to be provided within the Aerotropolis Precinct. The indicative locations for these facilities are within the Bradfield City Centre.

Based on residential benchmarks applied by Liverpool City Council and the WSA Social Infrastructure Needs Assessment (one local community centre per 8,000 – 10,000 residents), the incoming worker population would not generate demand for a centre on the site. However, it is important to note that this benchmark is based on a residential population, and there are no widely used community centre benchmarks which consider a worker population.

Consultation undertaken with representatives from Liverpool City Council indicated importance of providing a multipurpose indoor function spaces which could be used by local businesses and the community.

6.3.2.2. Recommendations

Provide a multipurpose community centre or space at the time of the development of the small scale local centre. The community centre should include meeting rooms, event / function spaces (such as a hall) and be available for businesses located on the site to hire for training and events. The community centre could also accommodate a dedicated education or industry training space (see Section 6.3.3.2) and could also be available for broader community hire. Further consultation with Council is required to understand ownership, management and gross floor area (GFA) of this space.

6.3.3. Schools and tertiary education institutions

Schools are important as they help young people develop core social and academic skills. Schools are therefore a central part of communities, bringing together diverse groups of people, including students, families and teachers. Primary and high schools should be located close to residential populations to maximise walking and cycling, with high schools ideally also close to key centres and public transport hubs.

Tertiary education institutions such as universities and Vocational Education and Training (VET) institutions also play a key role in developing workplace skills, technical knowledge and social and professional networks. As tertiary education institutions generally accommodate a regional student catchment, they are best located in strategic or metropolitan centres.

6.3.3.1. Overview of needs

As identified in Table 8, the WSA Social Infrastructure Needs Assessment (GHD 2022) recommends a range of education facilities for the Aerotropolis Precinct, including potentially a new primary school, secondary school, an innovation facility and a Multiversity. Apart from the multiversity, the indicative locations for these facilities are within the Bradfield City Centre.

A school would not be suitable on the site as the Master Plan will not generate the need for additional primary or high school enrolment places as no residential uses are proposed. There are also no immediately mixed use or residential uses immediately adjoining the site.

In terms of the multiversity, the WSA Social Infrastructure Needs Assessment (GHD 2022) notes that it will not have a centralised campus but will instead be dispersed throughout the Aerotropolis and by physically located alongside its industry partners. To achieve this, the assessment recommends that the Aerotropolis Core Precinct provides flexible zoning that enables education uses and associated infrastructure will be required thorough the Aerotropolis.

The indicative social infrastructure mapping contained within the WSA Social Infrastructure Needs Assessment identifies a small area within the site for an 'education land use'. While the purpose of education land use proposed on the site under the Precinct Plan is uncertain, consideration should be given to providing an education or industry connection space within the multipurpose community centre (which is recommended for the site in Section 6.3.2).

As part of feedback on the SIA, Council noted that a 'skilling and employment hub' should be considered for the site. This facility could provide access to construction training and skills development, career promotion initiatives and pre-employment courses. This facility would be appropriate given the provision of employment uses on the site and would support local school and tertiary education students as well as the broader community. The multipurpose community centre could host skilling and employment hub services to increase efficiencies in space and clustering of community, education and employment services. It is recommended that consultation with key stakeholders and potential delivery partners such as TAFE NSW, community employment service providers, as well as stakeholders associated with the multiversity is undertaken once the detailed design of the small scale local centre has been resolved. It is also recommended consultation with the Gandangara Local Aboriginal Land Council (LALC) is undertaken to identify opportunities for Indigenous employment and training opportunities and other potential partners.

6.3.3.2. Social infrastructure recommendations

Consider providing education or industry training space/s catering to a skilling and employment hub within the multipurpose community centre that has been recommended for the site as part of this assessment.

6.3.4. Childcare facilities

Childcare centres are critical social infrastructure to support worker populations. They should be accessible and central to the population they serve, with consideration to transport connections and worker movements. Centres should also be co-located with other services to maximise user convenience and encourage greater cross-utilisation of clustered facilities.

6.3.4.1. Overview of needs

As identified in the Table 8, the WSA Social Infrastructure Needs Assessment (GHD 2022) recommends a private childcare centre to be provided within the site area.

The WSA Social Infrastructure Needs Assessment (GHD 2022) also provides a benchmark of 1 long day care place per 75 workers. Based on this, the incoming worker population (5,242 workers) will generate demand for up to 70 long day care places.

6.3.4.2. Social infrastructure recommendations

Provide a childcare centre onsite to cater to the needs of workers, potentially in the small scale local centre. The childcare centre will need to be designed and located so it is not affected by potential noise and air quality impacts from surrounding developments. The childcare centre will also need be located in an area which has suitable pick-up and drop-off points.

6.3.5. Health facilities

Providing health facilities in employment areas is important so that people can access health services without significantly impacting on their work commitments. Community health facilities play an important role in health promotion and provide specialist health services. Private medical centres often accommodate general practitioners (GPs) who are often the first point of contact for someone who has a health concern.

Health facilities should be located in areas central and accessible to the population they intend to serve. They should also be co-located with other services other services to maximise user convenience and encourage greater cross-utilisation of clustered facilities.

6.3.5.1. Overview of needs

As identified in the Table 8, the WSA Social Infrastructure Needs Assessment (GHD 2022) recommends several government-operated health facilities for the Bradfield City Centre. This includes a community health facility / IHHub and a specialised Indigenous health facility.

The WSA Social Infrastructure Needs Assessment (GHD 2022) also provides a benchmark of 1 private medical centre (with 21 general practitioners) for every 10,000 residents. While this is based on a residential population, the size of the incoming worker population indicates there could be demand for a smaller private medical centre.

Representatives from Liverpool City Council noted a private medical centre should be provided on the site to support the health and wellbeing needs of the incoming worker population. They also noted that the medical should extended operating hours to cater to shift workers.

6.3.5.2. Social infrastructure recommendations

Provide a private medical centre in the small scale local centre. The medical centre should have extended operating hours to cater to shift workers.

6.3.6. Open space and recreation facilities

Open spaces can accommodate structured and unstructured recreational activities and have physical and mental health benefits. Examples of structured recreation activities include playing a sport, running or cycling. Examples of unstructured recreation activities include walking and using open space for relaxation. Many larger open spaces accommodate sporting fields which are generally linked to local sporting clubs and located close to the population they intend to serve.

6.3.6.1. Overview of needs

Incoming workers, visitors and the surrounding community will require access to a range of open spaces to engage in both structured and unstructured recreation activities.

The WSA Social Infrastructure Needs Assessment (GHD 2022) recommends two district parks for the site area, with each park accommodating a multipurpose sportsfield or sports courts (see Table 1).

As mentioned above, sporting fields are generally linked to local sporting clubs and located close to the population they intend to serve. As the site is located within or near any proposed residential areas, the indicative sportsfields location for the site area is not considered appropriate. Multipurpose sport courts, which can cater to informal and formal recreation activities, are considered a more appropriate option for a worker population.

The Assessment also provides benchmarks for open space. These are outlined in Table 9 below.

Table 9 Open space benchmarks contained in the WSA Social Infrastructure Needs Assessment

Benchmark
<ul style="list-style-type: none">1 local park for every 2,500 people or 0.2 ha for every 1,000 residents (includes 20% of the worker population)

Benchmark
<ul style="list-style-type: none"> 1 district park for every 5,000 people or 1 ha for every 1,000 residents (includes 20% of the worker population) 1 regional park for every 20,000 people or 1 ha for every 1,000 residents (includes 20% of the worker population)

Source: WSA Social Infrastructure Needs Assessment (GHD 2022, p. 80)

Considering 20% of the incoming worker population, the site will generate demand for local parks. While the incoming worker population doesn't meet the threshold for district and regional parks, it will contribute to cumulative demand for these larger open spaces.

6.3.6.2. Open space and recreation recommendations

Provide outdoor multipurpose sport courts. The courts should be located in an activated location and close to other facilities and services, such as near the small scale local centre.

6.3.7. Summary of recommended social infrastructure and open space for the master plan

Table 10 below summaries the recommended social infrastructure and open space for the Master Plan.

The floor areas and detailed designs for the recommended multipurpose community centre, childcare centre and health facility will be determined during the preparation of the complying development certificate/s for the local centre with input from a social planning consultant and Council.

Table 10 Summary of recommended social infrastructure and open space for master plan

Recommended infrastructure	Indicative location
Social infrastructure	
Multipurpose community centre (including education and training spaces or a 'skilling and employment hub')	Local centre
Childcare centre	Local centre
Private medical centre	Local centre
Open space and recreation facilities	
Local open spaces	Throughout the Master Plan area
Multipurpose sport courts	Close to the local centre

6.4. ASSESSMENT OF THE MASTER PLAN

The following provides an assessment of how the Master Plan has incorporated social infrastructure and open space.

6.4.1. Social infrastructure

Section 6.3 provided recommendations for a range of social infrastructure to be provided on the site to meet the needs of workers and the surrounding community. These are summarised in Table 11.

Table 11 Summary of social infrastructure recommendations for the site

Recommendations
<ul style="list-style-type: none"> ▪ Provide a multipurpose community centre or space in the small scale local centre. This could include an education or industry training space to support the needs of local students. ▪ Provide a childcare centre in the small scale local centre which can accommodate 70 places or more. The childcare centre must also be planned and designed in accordance with the Education and Care Services National Regulations (2011). ▪ Provide a private medical centre in the small scale local centre. The medical centre should have extended operating hours to cater to shift workers.

The preferred location for this social infrastructure is within the small scale local centre so that co-location with other retail and commercial offerings can be achieved. This will help to maximise user convenience and reduce the need for multiple trips. The indicative locations for the recommended social infrastructure are shown in the Urban Design Report prepared by Urbis.

While the Master Plan does not detail the specific uses within the small scale local centre at this stage, these uses can be delivered in accordance with the planning framework as they comply with the objectives of the ENT Zone in the State Environmental Planning Policy (Precincts—Western Parkland City) 2021. It is understood that the childcare centre would comply with noise requirements if located in the small scale local centre.

6.4.2. Open space

As shown in Figure 9, open space provided in the Master Plan focuses on three linear open space corridors which run north-south through the site and follow existing riparian corridors. These spaces are proposed to be well embellished, containing walking and cycling paths, seating areas, and BBQ facilities, and open grass areas. They also provide connections to other sites to form an interconnected linear open space network across the Aerotropolis Core Precinct.

A local park is also provided in the town centre which contains seating and gathering spaces. The park is easily accessible as it is located centrally within the small scale local centre. Through site links are provided in the block to the north to enhance access to this space.

Open spaces are well distributed across the Master Plan, with most employment areas within a comfortable walking distance (500m) of open space. The exception to this is Lots 22, 23 and 24, where the closest open spaces are just outside the 500m radius.

It is important that open spaces which can accommodate structured recreation activities are also provided. The Public Domain Landscape Strategy prepared for the site by Site Image shows several large open grass areas throughout the site which could be used for informal sport games. The Strategy also includes outdoor multipurpose sport courts located within the recreation area in the southern part of the site, adjacent to the small scale local centre (see Figure 5) which are proposed to be developed by the proponent and dedicated to Liverpool City Council through a Works-In-Kind (WIK) agreement. These sport courts and broader recreation areas are well located as their proximity to the small scale local centre will help to activate the area and maximise user convenience, as workers and visitors can participate in recreational activities and access other facilities and services in the small scale local centre during their breaks or after work. To further enhance open space across the site, it is recommended that open spaces incorporate Recognising Country principles outlined in the Recognising Country Framework (Yerrabingin 2024) and adopt the recommendations outlined in the CPTED assessment prepared by Urbis (2024a).

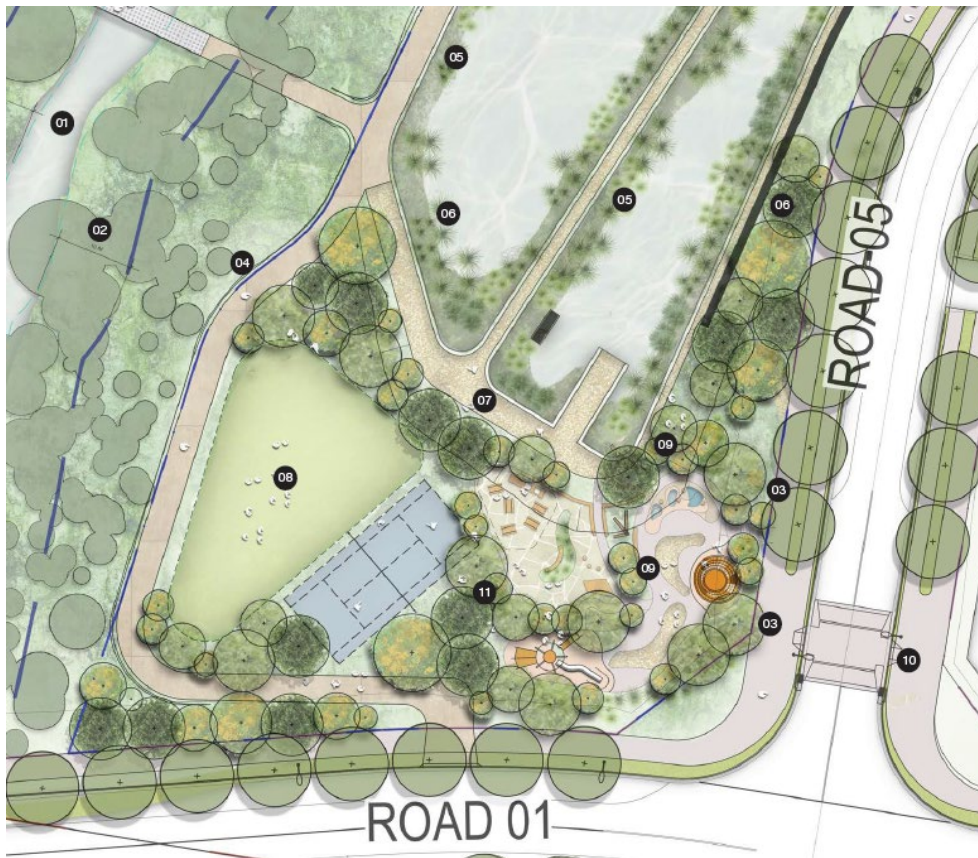
It is expected the incoming population's needs for district and regional open spaces will be met through the proposed Central Wianamatta Park. This park comprises 105 ha and is located adjacent to the western panhandle of the site between the Aerotropolis Core and Rossmore Precincts.

Figure 9 Landscape Plan



Source: Public Domain Landscape Strategy, p. 9 (Site Image 2024)

Figure 10 Recreation area containing multipurpose sport courts



Legend

- 01 Natural Watercourse/Stream
- 02 Riparian planting to VMP. Refer to planting strategy and Documentation package for further detail
- 03 Access to Local Road/Local Centre
- 04 4m wide cycleway/active transport corridor
- 05 Wetland Basin/Storage Pond
- 06 Walkway along wetland basin and Viewing deck with seating
- 07 Large BBQ/Amenity zone
- 08 Large managed turf area for flexible use/active use i.e. sports
- 09 Children's play area including climbing equipment, water-play, nature play and interpretive play
- 10 Visual connection and way-finding elements directing users to amenity zones
- 11 Potential sports courts area

Source: Public Domain Landscape Strategy, p. 56 (Site Image 2024)

7. SOCIAL IMPACT AND BENEFIT ASSESSMENT

This chapter analyses the social impacts and benefits resulting from the Master Plan. It is structured by the social impact categories outlined in the SIA Guideline (DPHI 2023). Each impact is assessed in accordance with the risk assessment methodology applied in the Technical Supplement of the SIA Guideline, whereby the significance of potential impact is assessed by comparing the magnitude of the impact against the likelihood of the impact occurring. A detailed overview of this methodology is provided in Section 2.2.

7.1. WAY OF LIFE

Based on the current information available, social impacts in relation to way of life were not identified as part of the impact scoping for the Master Plan.

7.2. COMMUNITY

Based on the current information available and stage of development, social impacts in relation to community were not identified as part of the impact scoping for the Master Plan.

7.3. ACCESSIBILITY

Based on the current information available and stage of development, social impacts in relation to accessibility were not identified as part of the impact scoping for the Master Plan.

7.4. CULTURE

This section provides a detailed assessment and stage of development, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the culture as a consequence of the Master Plan. The matters assessed include:

- Potential disruption to local Aboriginal sites
- Incorporation of Aboriginal culture and heritage
- Potential disruption to European historical heritage.

Table 12 Summary of culture impacts

Matter	Impact / Benefit	Affected stakeholders	Duration	Extent	Unmitigated / Unenhanced	Mitigated / Enhanced
Potential disruption to local Aboriginal sites	Impact	Local Aboriginal community	Construction	Local	Low	Low
Incorporation of Aboriginal culture and heritage	Benefit	Local Aboriginal community, future workers	Operation	Local	Medium	High
Potential disruption to European historical heritage	Impact	Former Badgerys Creek residents and workers	Construction	Local	Low	Low

7.4.1. Potential disruption to local Aboriginal sites – impact unmitigated

The construction of industrial development (which often comprise of large areas and require extensive earthworks) may impact on Aboriginal objects, the landscape or the spiritual connection Aboriginal people have with Country.

The Aboriginal Cultural Heritage Assessment (ACHA) prepared by Eco Logical (2024a) identifies 12 Aboriginal sites within the site and the creek lines, with most being of low scientific value and high cultural value to the local Aboriginal and Torres Strait Islander communities. Ten of the identified sites will be directly impacted by the proposal, however eight of the sites could not be reidentified during archaeological investigations as they are located in highly disturbed areas, with the ACHA noting these eight sites are likely to have been destroyed. The remaining two Aboriginal sites will not be impacted by the proposal as they will be located within the proposed open spaces, adjacent to Badgerys Creek and South Creek.

During the ACHA development process, Eco Logical consulted with 19 Registered Aboriginal Parties (RAPs) on 11 February 2022 requesting feedback on the ACHA methodology and recommendations. Nine of the RAPs responded and were in support of the ACHA's archaeological survey results and test excavation methodology. A copy of the ACHA was shared with the RAPs on 16 September 2023 and of the five that responded, all were in support of the ACHA's recommendations.

Given that many of the identified Aboriginal sites have already been disturbed or destroyed and the remaining sites are likely to be impacted to a minimal extent, the impact is assessed as **low**.

7.4.2. Potential disruption to local Aboriginal sites – impact mitigated

To mitigate the impacts on the remaining Aboriginal sites, the ACHA recommends the following mitigation measures:

1. Aboriginal sites within the designated open spaces should be protected and be made aware of in the Construction Management Plan, prior to any works being undertaken in those areas.
2. An Aboriginal Heritage Impact Permit (AHIP) will be required prior to future development to cover the impacts to the ten Aboriginal sites that will be impacted by the proposal. As these sites are of low significance, no further mitigations will be required for these sites.
3. The management of Aboriginal objects found during the archaeological investigations completed by Eco Logical. It is recommended that at the completion of the proposal, a suitable place for reburial will be determined through consultation with the proponent and the Aboriginal community.
4. Interpretation of Aboriginal cultural values are recommended, such as engaging Aboriginal artists, incorporating local Aboriginal naming conventions, incorporating native plant species, and providing interpretive information in relation to the Aboriginal history of the site.

Assuming these mitigation measures are followed, the mitigated impact remains **low**.

7.4.3. Incorporation of Aboriginal culture and heritage – benefit unenhanced

The Western Sydney Aerotropolis Social Infrastructure Needs Assessment prepared by GHD (2022) notes the design and use of open spaces should be used to reflect and reinforce local culture, strengthening the sense of community and Connection with Country. Bradfield is located within a transitional area between the boundaries of the Dharug, Dharawal and Gandagara language groups (Yerrabingin 2024). It is therefore important for the site to consider and incorporate the unique narratives and culture of each group.

To ensure that Country is being appropriately represented in the design of the proposal, Yerrabingin, an Indigenous design consultancy, undertook community engagement to inform the Designing with Country Framework (the DWC Framework). The engagement activities undertaken included a Design Jam and Walk Country. This process identified three key Indigenous themes to incorporate into the design of the proposal: the convergence of three clans, water landscape and community driven.

Section 2.6 of the DWC Framework identifies several design elements that are aligned with the three Indigenous themes, some of which have already been incorporated into the design of the proposal. These

include spaces amongst nature, native food gardens, employment opportunities, bringing greenery into communal spaces and large green spaces.

Overall, the proposed design of the precinct and the incorporation of Aboriginal culture and heritage in open spaces will likely impact on the local Aboriginal community and future worker community to a minor extent. As such, this unenhanced impact is assessed as **medium**.

7.4.4. Incorporation of Aboriginal culture and heritage – benefit enhanced

To enhance the expression of Aboriginal culture and heritage in the site, the proposal should incorporate additional enhancements, as outlined in the DWC Framework. These include providing native food gardens, employment opportunities for the local Aboriginal community, incorporating sensory elements (e.g., misting) and incorporating green facades. The DWC Framework also identifies four key next steps for the proposal to increase its connection with Country. These include continued community engagement and workshops with the local Aboriginal and Torres Strait Islander community, particularly in relation to how local Indigenous art, design, language, wayfinding and branding will be incorporated into the detailed design of the proposal.

The Public Art Strategy prepared by Site Image (2024a) also identifies several public art opportunities aligned with the three key Indigenous themes identified by Yerrabingin. These opportunities comprise of eight different artform typologies, such as functional art, educational art and environmental art, each adopting a unique form, purpose and position. These artwork opportunities are distributed across the precincts, in carefully considered locations that consider the natural features, circulation, view corridors, uses, amenity, activation, character and wayfinding.

Assuming the public art opportunities, native landscaping opportunities and design recommendations are successfully implemented, this enhanced impact is assessed as **high**.

7.4.5. Potential disruption to European historical heritage – impact unmitigated

Places and items can have European heritage value based on its historic, associative, aesthetic, research potential, rarity, or representativeness significance. Protecting heritage places and items is important in retaining its historical value, maintaining existing connections between individuals or groups to those places and items, and allowing others to gain new understandings into the European historical heritage of an area.

The Historical Heritage Assessment prepared by Eco Logical (2024b) recognises that Badgerys Creek has retained its rural character and agricultural land uses since European exploration first occurred in the early 1800s. However, the Historical Heritage Assessment found the site to have low archaeological potential, and if an archaeological resource is present, it would not meet the heritage criteria to be considered locally significant. The heritage significance of the site also does not reach the threshold for local or state significance under the heritage criteria for historic, associative, aesthetic, research potential, rarity, or representativeness.

Given there are no historical heritage items of significance within the site, or in proximity to the site, this unmitigated impact is assessed as **low**, given the unlikely likelihood and minor significance.

7.4.6. Potential disruption to European historical heritage – impact mitigated

To mitigate the risk of potentially disrupting a European heritage item, the Historical Heritage Assessment recommends for the proposal to adopt an 'unexpected finds procedure'. This procedure will ensure that if any unexpected historical archaeology be uncovered during any excavation works, all work will be stopped in the immediate area of the item and a qualified archaeologist will be engaged to assess the finds.

In accordance with this mitigation, the mitigated impact is assessed to remain as **low**.

7.5. HEALTH AND WELLBEING

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the health and wellbeing as a consequence of the Master Plan. The matters assessed include:

- Impacts related to air quality
- Impacts related to noise
- Increased urban heat island
- Provision of social infrastructure and open space.

Table 13 Summary of health and wellbeing impacts

Matter	Impact / Benefit	Affected stakeholders	Duration	Extent	Unmitigated / Unenhanced	Mitigated / Enhanced
Impacts related to air quality	Impact	Future workers, customers and visitors using the site Existing residents in Kemps Creek	Construction and operation	Local	Unable to be assessed (refer to Section 7.5.1)	Low
Impacts related to noise	Impact	Future workers, customers and visitors using the site Existing residents in Kemps Creek	Construction and operation	Local	Medium	Medium
Increased urban heat island	Impact	Future workers, customers and visitors using the site	Operation	Local	High	Medium
Provision of social infrastructure within the site	Benefit	Future workers, customers and visitors using the site Surrounding community	Operation	Local	Medium	High

7.5.1. Impacts related to air quality – impact unmitigated

The construction and operation of urban developments can generate emissions which can impact on air quality. If not managed appropriately, this can have flow-on human health impacts, particularly for people with lung and respiratory conditions such as asthma.

The Air Quality Assessment (AQA) prepared by SLR Consulting (2024) identifies a range of existing and future sensitive receivers, including existing residential receivers in the suburb of Kemps Creek / Rossmore Precinct to the east of the site and residential receivers to the south and south west of the site. While the current land uses and residents in the Rossmore Precinct are likely to remain indefinitely until the area is rezoned, the current uses to the south and south west of the site are likely to be redeveloped as part of the broader Badgerys Creek Precinct.

The demographic profile (see Section 4.2.2) reveals that residents in the Kemps Creek area have a higher proportion of long term health conditions compared to Liverpool LGA and Greater Sydney. Approximately 7% of these residents have asthma, suggesting these residents may be more susceptible to air quality impacts.

The AQA prepared by SLR Consulting (2024) assesses the following potential impacts associated with the Master Plan:

- Impacts from surrounding sources of airborne pollutants on the site
- Impacts of future air emissions from the site on surrounding receptors.

These impacts are discussed in further detail below.

Impacts on the site from surrounding sources of airborne pollutants

These emission sources are identified as being:

- Emissions from existing surrounding land uses (predominantly poultry farming, mushroom farming and a recycling and recovery facility)
- Emissions from the future operation of the Western Sydney Airport.

The AQA concludes there was weak / very weak detection of odours at the site from the surrounding poultry farms, and that impacts from the recycling and recovery facility would be highly unlikely due to the distance of this facility from the site. The authors of this SIA also note that these sites will likely be redeveloped into business and enterprise and enterprise and light industry uses in line with the vision for the Aerotropolis Core Precinct. While the timeframe for redevelopment of these surrounding sites is not known, it is possible these uses will no longer be operational once the Master Plan site is developed.

In terms of impacts from the Western Sydney Airport on the site, the AQA concludes that based on the findings of the air quality assessment undertaken by PEL (2016) for the then proposed Airport, it is unlikely that the Airport would represent a significant constraint for development of the site.

Impacts of future air emissions from the site on surrounding receptors

These emission sources are identified as being:

- Emissions from vehicle traffic generated by the site
- Emissions from potential future industries (other than warehousing activities) on the site.

The AQA concludes that the traffic flows within the site would not result in an unacceptable increase in incremental or cumulative air quality impacts at the nearest existing sensitive receivers. As the future industries on the site are not known, air quality impacts generated by these industries cannot be determined at this stage. However, mitigation measures have been incorporated to minimise potential impacts (refer to Section 7.5.2 below).

7.5.2. Impacts related to air quality – impact mitigated

As specific uses of the building lots are yet to be determined, the AQA contains an assessment of potentially relevant future industries and their recommended locations based on minimum separation distances from surrounding sensitive receivers. This helps to guide the location of specific uses within the Master Plan area to minimise potential impacts on surrounding sensitive receivers and is therefore a mitigation measure.

However, the AQA also notes that consideration of potential off-site air quality impacts needs to be made on a case-by-case basis once details on the type and scale of activities proposed.

The AQA also recommends the following measures to mitigate potential future air quality impacts:

- Minimising vehicle idling times around the site using best management practices, including:

- Requiring vehicle engines to be turned off when loading/unloading; when drivers are on a break, or waiting to get administrative clearances, etc; and
- Installation of appropriate signage at relevant locations encouraging drivers to switch off engines when not in use.
- Designing future buildings in accordance with AS1668.2-2012 which includes criteria for ensuring indoor ventilation and air conditioning adequately reduces emissions.

This SIA supports these recommendations and suggests that these assessments identify any significant air emission source for the proposed development, assess the potential for cumulative off-site impacts and detail any relevant management and mitigation measures.

Additional mitigation measures which aim to promote public and active transport use have also been proposed which will help to reduce air quality emissions from private motor car use. These include:

- Preparation of a public transport and active master plan, as outlined in the Urban Design Report (Urbis 2024).
- Preparation of a Travel Plan for commercial and industrial development that accommodate more than 50 employees. Travel Plans would need to be prepared prior to the issue of the occupation certificate for future development. This requirement is outlined in the Framework Operational Environmental Management Plan (OEMP) (see section 4.2.2 of the Framework Construction Environmental Management Plan prepared by SLR) which will be prepared as part of the Complying Development Code.

Based on the above mitigation measures, the mitigated impact is assessed as **low**, given an unlikely likelihood and minor significance.

7.5.3. Impacts related to noise – impact unmitigated

The construction and operation of future development within the Master Plan will change the existing noise vibration environment within and surrounding the site. Noise and vibration can impact the ability for individuals and groups to conduct certain activities such as sleep or activities that require high levels of concentration, including study and work.

The Noise Planning Assessment (NPA) prepared by EMM (2024) identifies the following several sensitive receiver locations where noise monitoring was undertaken:

- Existing rural-residential / agricultural uses located to east of the site in the suburb of Kemps Creek (referred to in the NPA as the Rossmore Precinct)
- Existing rural-residential / agricultural uses located to the south of the site which will transition to mixed use development as per the proposed land uses outlined in the Western Sydney Aerotropolis Precinct Plan
- Existing rural-residential / agricultural uses located south, southwest and west of the site which will transition to light industrial, commercial, and other non-residential uses as per the proposed land uses outlined in the Western Sydney Aerotropolis Precinct Plan

Based on the site's proximity to existing and future residential uses and likely 24/7 operation of the precinct and assuming no mitigation measures are implemented, the unmitigated impact is assessed as **medium**, given a possible likelihood and moderate magnitude.

7.5.4. Impacts related to noise – impact mitigated

The NPA outlines noise goal allowances for the entire site and for individual industrial lots to mitigate potential noise impacts from future development on the site. These noise goal allowances are determined based on relevant noise assessment criteria as well as the changing land uses surrounding the site. The allowances provide guidance for target noise levels for a specific lot and would inform the noise assessment that would accompany a complying development certificate (CDC) for future development, and is therefore a mitigation measure.

Overall, using rural amenity as the noise criteria for the entire lot, the NPA determines that sites closer to sensitive receiver areas would be more restricted in terms of noise emissions than those located further away and with more acoustic shielding from adjacent buildings. Intrusive noise criteria will be applied on a lot by lot basis.

The NPA also identifies further mitigation measures to reduce noise impacts, including:

- Undertaking additional noise assessments to accompany CDCs for future development. These assessments would need to demonstrate that noise emissions from future development would not exceed the noise goal allowances for their specific lot.
- Preparing a Construction Noise and Vibration Impact Assessment (CNVIS) or Construction Noise and Vibration Management Plan (CNVMP) prior to construction of a specific lot. The NPA also notes construction activities would be restricted to standard construction hours, and any out of hours works would need to be justified.

In terms of road traffic noise, an area of consideration is the road adjacent to the eastern extent of the panhandle close to the Rossmore Precinct. While the NPA notes that this unlikely to be a significant concern based on likely road proximity and envisaged vehicle volumes for a sub-arterial road, it recommends that further assessment of road traffic noise is considered when road alignments are finalised and traffic volumes are confirmed.

Additional mitigation measures which aim to promote public and active transport use have also been proposed which will help to reduce road traffic noise from private motor car use. These include:

- Preparation of a public transport and active master plan, as outlined in the Urban Design Report prepared by Urbis.
- Preparation of a Travel Plan for commercial and industrial development that accommodate more than 50 employees. Travel Plans would need to be prepared prior to the issue of the occupation certificate for future development. This requirement is outlined in the Framework Operational Environmental Management Plan (OEMP) (see section 4.2.2 of the Framework Construction Environmental Management Plan prepared by SLR) which will be prepared as part of the Complying Development Code.

While the above mitigation measures are proposed, it is also recognised that further detailed assessments of road noise may need to be assessed. The mitigated impact is therefore assessed as **medium**, given a possible likelihood and minor magnitude.

7.5.5. Urban heat island impacts – impact unmitigated

An urban heat island occurs when natural land cover is replaced with dense concentrations of urban structures and hard pavement such as roads, car parks and buildings. These structures absorb solar radiations and re-radiate them into the environment, creating high localised temperatures. This can have flow-on health and wellbeing impacts for people, such as dehydration, fatigue and heat stress. The Western City District Plan (DPHI 2018) emphasises the importance of considering the impact of extreme heat on communities and infrastructure networks, noting that more highly developed parts of the Western City District have been exposed to extreme heat as a result of urban heat island.

The proposal will be replacing the existing grassland with large concrete surfaces, including roads, carparking areas and handstand areas, as well as structures with large building footprints. These structures are expected to increase the urban heat on the site, which may have negative impacts on the health and wellbeing of future workers. This proposal is also expected to contribute to a cumulative urban heat increase across the Aerotropolis Core Precinct and the Western Sydney Aerotropolis due to the significant urban development planned for this region.

This unmitigated impact is assessed as **high**, with a moderate magnitude and an almost certain likelihood.

7.5.6. Urban heat island impacts – impact mitigated

The proposal intends to mitigate the effects of urban heat island by restoring and managing the three creeks that pass through the site and providing linear open spaces along these riparian corridors to connect the precinct to the surrounding area. These plans are aligned with the urban heat island mitigation measures

outlined in the WCDP (DPHI 2018) by employing linear open spaces to expand urban tree canopy and allowing future workers and visitors to benefit from the cooling effects of water in the landscape.

The Public Domain Landscape Strategy prepared by Site Image (2024b) provides details regarding the landscape masterplan. Unique landscaping strategies have been developed in different areas across the site, including within the riparian corridors, small scale local centre, streetscapes, and industrial estate. The industrial lots and roads are expected to have the greatest contribution to urban heat, therefore the landscaping plans associated with these areas should be given particular consideration and should be enhanced where possible.

The Public Domain Landscape Strategy intends to deliver street tree planting with interconnection canopies and landscape setbacks along the streetscape in accordance with tree canopy targets. Within the industrial estates, setback planting, canopy coverage and tree screening and softening of built form is proposed to mitigate urban heat build-up.

The incorporation of green facades, green or light colour roofs and additional landscaping and water features where possible are additional strategies included in the Sustainability Strategy and Ecological Sustainable Development (ESD) Report and the Architectural Design Statement. These strategies are intended to be integrated into the built form as part of the design and construction of each lot.

Assuming the landscaping plans are implemented and future developments incorporate the additional urban heat mitigation measures recommended above, the mitigated impact is assessed as **medium**, with a minor magnitude and a possible likelihood.

7.5.7. Provision of social infrastructure within the site – benefit unenhanced

Incoming workers will require access to a range of social infrastructure and open space to support their health and wellbeing. Section 6 of this SIA provides an assessment of the likely social infrastructure and open space required to meet the needs of incoming workers, customers and visitors, and the surrounding community. The assessment considers the existing social infrastructure network, social infrastructure and open space recommended more broadly for the Western Sydney Aerotropolis, quantitative benchmarks, and outcomes from the consultation with representatives from Liverpool City Council.

The Urban Design Report (Urbis 2024c) shows the indicative locations for the social infrastructure recommended in Section 6.4.1. This includes:

- A multipurpose community centre or space (incorporating an education or industry training space and/or a 'skilling and employment hub')
- A childcare centre of 70 places or more
- A private medical centre
- Local open space
- Multipurpose outdoor sport courts.

As discussed in Section 6.4.2, the Master Plan and Public Domain Landscape Strategy (Site Image 2024b) shows a well distributed open space network which contains a combination of linear open spaces with walking and cycling paths and open grass areas containing seating and picnic areas and opportunities for informal sport activities. These spaces are expected to support the health and wellbeing of workers, customers and visitors. Outdoor multipurpose sport courts are also proposed and shown in the Public Domain Landscape Strategy. These courts are proposed to be developed by the proponent and dedicated to Liverpool City Council through a Works-In-Kind (WIK) agreement.

Based on the social infrastructure and open space inclusions in the Master Plan, the unenhanced benefit is assessed as **medium**, with a likely likelihood and minor magnitude.

7.5.8. Provision of social infrastructure within the site – benefit enhanced

The incorporation of the recommendations in the CPTED assessment (Urbis 2024a) and the Recognising Country principles outlined in the Designing with Country Framework (Yerrabingin 2024) is expected to enhance social infrastructure and open space provision within the site.

The enhanced benefit is assessed as **high**, given the moderate magnitude and likely likelihood.

The floor areas and detailed designs for the recommended multipurpose community centre, childcare centre and health facility will be determined during the preparation of the complying development certificate/s for the local centre with input from a social planning consultant and Council.

7.6. SURROUNDINGS

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the surroundings as a consequence of the Master Plan. The matters assessed include:

- Creating a safe urban environment
- Loss of agricultural capable land.

Table 14 Summary of way of life impacts

Matter	Impact / benefit	Affected stakeholders	Duration	Extent	Unmitigated / Unenhanced	Mitigated / Enhanced
Creating a safe urban environment	Benefit	Future workers, customers and visitors using the site	Operation	Local	Medium	High
Loss of agricultural capable land	Impact	Greater Sydney	Permanent	Regional	High	Neutral

7.6.1. Creating a safe urban environment – benefit unenhanced

The DPHI's Western Sydney Aerotropolis Development Control Plan (DPHIb 2022) identifies the inclusion of crime prevention through environmental design (CPTED) principles (surveillance, access control, territorial reinforcement, and space and activity management) in the design of new developments. Incorporating CPTED principles ensures new developments will contribute to the activity, vibrancy, diversity and safety of streets and the public domain through the day and night.

During consultation with Liverpool City Council, concerns regarding safety along the proposal's riparian corridors were raised, particularly in relation to maintaining causal surveillance during the day and night as the precinct will operate 24/7. Although there are currently no recorded levels of crime in Badgerys Creek / Bradfield due to the small population associated with the existing rural agricultural land uses, this will likely change as the land uses change and as the worker population increases (see Section 5.1).

The CPTED Assessment prepared by Urbis (2024a) recognises that the Master Plan has incorporated design elements that will contribute to a safe urban environment. These include elements such as the inclusion of a variety of activity spaces (e.g., multi-use open spaces, BBQs, amenities, seating, etc) along the riparian corridors and in the small scale local centre. These spaces will attract visitation, thereby enhancing passive surveillance and real and perceived feelings of safety. These spaces also provide local workers with opportunities to gather, meet and form social connections with one another, contributing to a sense of community and increasing territorial reinforcement.

As the design of the masterplan has already incorporated a range of CPTED principles, the unenhanced impact is assessed as **medium**, with likely likelihood and a minor magnitude.

7.6.2. Creating a safe urban environment – benefit enhanced

To further enhance the creation of a safe urban environment for future workers and those accessing the site, the proposal should incorporate the recommendations outlined in the CPTED Assessment prepared by Urbis. The key recommendations from this report include providing adequate lighting in the public domain (particularly along the riparian corridors) to increase real and perceived feelings of safety, implementing traffic calming measures within the small scale local centre, and including a maintenance schedule for landscaped and public domain areas in an Operation Environmental Management Plan (OEMP).

Representatives from Liverpool City Council requested consideration for an on-site security presence to manage the precinct, particularly given its 24/7 operation. Safety and security (including consideration for on-site security presence) will be included in future OEMPs which will be prepared by tenants for new buildings before an occupation certificate is issued. The requirement to prepare a OEMP as part of the complying development process is also outlined in the Section 17.3.5 of the Complying Development Code. Section 4.22 of the Framework Construction Environmental Management Plan prepared by SLR provides a framework for future OEMPs, and includes a section on safety and security.

Representatives from Council also recommended for the proposal to consider place-making opportunities such as food trucks and pop-up cafes to activate open spaces (see Section 5.1.). These opportunities should be considered once the site is operational.

If the recommendations in the CPTED Assessment are implemented, this enhanced benefit is assessed as **high**, with a likely likelihood and moderate magnitude.

7.6.3. Loss of agricultural capable land – impact unmitigated

A range of local and strategic planning documents, including the Greater Sydney Region Plan (GCC 2018), the Western City District Plan (GCC 2018), and the Liverpool LSPS (Liverpool City Council 2020), all recognise agricultural industries as being integral to Greater Sydney's resilience by providing fresh produce to feed the city, as well as contributing to employment and tourism opportunities. These documents seek to support and protect agricultural production and note that the development of the Western Sydney Airport and surrounding Aerotropolis will provide new opportunities for agricultural industries.

To support agricultural industries and production surrounding the Western Sydney Airport, the NSW Government has designated agricultural land uses to be located on the western edge of the Airport, within the Agribusiness Precinct. Comprising 1,560 ha, the Precinct Plan (DPHI 2023) notes that this Precinct will provide intensive and innovative food production and food-related freight and distribution facilities close to the future Outer Sydney Orbital (OSO) and the Western Sydney Airport.

As discussed in Section 4.1.1, the site has historically been used for agricultural purposes as a chicken farm and is still operating for an agricultural purpose (accommodating agisted cattle). While the site has already been rezoned to meet the vision and objectives of the Aerotropolis Core Precinct outlined in the Western Sydney Aerotropolis Precinct Plan (DPHI 2023), the development of the Master Plan will result in a loss of agricultural capable land.

The loss of agricultural capable land at the site when assessed in isolation (i.e., without considering new agricultural opportunities within the Agribusiness Precinct) would be **high**, given the almost certain likelihood and moderate magnitude level.

7.6.4. Loss of agricultural capable land – impact mitigated

It is expected that the development of the Agribusiness Precinct within the Aerotropolis will mitigate the loss of agricultural capable land on the site. As a result, the mitigated impact is assessed as **neutral**.

7.7. LIVELIHOODS

This section provides a detailed assessment, unmitigated and mitigated and unenhanced and enhanced, of the matters that significantly impact the livelihoods as a consequence of the Master Plan. The matters assessed include:

- Increased construction and operational employment opportunities.

Table 15 Summary of livelihood impacts

Matter	Benefit / Impact	Affected stakeholders	Duration	Extent	Unmitigated / Unenhanced	Mitigated / Enhanced
Increased construction and employment opportunities	Benefit	Workers in the construction industry and workers in the logistics, manufacturing, wholesale trade, office and retail industries	During construction period (seven years) and operation	Regional	Medium	High

7.7.1. Increased construction and operational employment opportunities – benefit unenhanced

The Western Sydney Aerotropolis Precinct Plan forecasts that the Aerotropolis Core Precinct could accommodate approximately 50,000 to 60,000 jobs once developed. The Plan notes that the Precinct will be focused on a range of industries, including advanced manufacturing, research and development, professional services, creative industries and science, technology, engineering and mathematics (STEM), aerospace and defence (DPHI 2022). It is expected that many of these jobs will be located within and surrounding the Bradfield City Centre, which is identified as the key metropolitan centre servicing the Western Sydney Aerotropolis.

Providing job diversity as part of the Master Plan was identified as an important consideration by representatives from Liverpool City Council who noted that the job types supported by the Master Plan should reflect the job types proposed for the Aerotropolis Core Precinct.

The Economic Assessment prepared by Urbis (2024b) indicates that the Master Plan will support 292 direct construction jobs and 408 indirect construction jobs. Direct jobs include construction workers and indirect jobs relate to supply chain industries, predominately manufacturing.

The Master Plan will support 7,144 direct operational jobs which represents approximately 12% - 14% of the forecasted number of jobs for the Aerotropolis Core Precinct. These jobs will be predominantly in the logistics, wholesale trade, manufacturing, office and retail industries. These job types are aligned with the land uses proposed for the site under the Precinct Plan, which include enterprise and industry and small scale local centre. The master plan will also support 5,285 indirect operational jobs further down the supply chain, including jobs in the professional, scientific and technical services, information media and telecommunications and manufacturing industries.

The workforce catchment for Master Plan is likely to be workers within Liverpool LGA, surrounding LGAs (particularly Penrith) and Western Sydney more broadly. The operation and construction jobs generated by the Master Plan align with the existing skills and capabilities of residents in these communities, with ABS 2021 Census data indicating a higher proportion of people in blue collar occupations (such as labourers, machinery operators and drivers and technicians and trade workers) in these areas compared to Greater Sydney.

The operation and construction employment opportunities generated by the Master Plan are diverse, aligned to the skillsets of the likely workforce catchment and will contribute to approximately 12% - 14% of the total

jobs forecast for the Aerotropolis Core Precinct. This impact is therefore assessed as **medium**, with an almost certain likelihood and minor magnitude.

7.7.2. Increased construction and operational employment opportunities – benefit enhanced

The following measures are proposed to enhance operational employment opportunities by increasing access to the site for future workers who do not drive or not have access to a car:

- Inclusion of public and active transport network, as shown in the Urban Design Report prepared by Urbis (2024c) (noting this is yet to be approved and confirmed by TfNSW). The public transport network proposed has been developed in alignment with the planned public transport network for the Aerotropolis, as outlined in Aerotropolis Precinct Plan. The proposed public transport network would connect workers, visitors and community members to the site from the future Aerotropolis Metro Station (via the proposed Bradfield Metro Link Road) as well as from Liverpool (via Fifteenth Avenue) and Penrith (via the Eastern Ring Road).
- Preparation of Travel Plans for commercial and industrial development that accommodate more than 50 employees. This document will outline strategies to maximise public and active transport use and would need to be prepared prior to the issue of the occupation certificate for future development. This requirement is outlined in the Framework Operational Environmental Management Plan (OEMP) (see section 4.2.2 of the Framework Construction Environmental Management Plan prepared by SLR) which will be prepared as part of the Complying Development Code.

This SIA recommends that the proponent continues to engage with Transport for NSW (TfNSW) regarding the proposed public transport network within the site to determine an agreed approach.

Should the proposed public transport be approved, the enhanced impact would be **high**, with an almost certain likelihood and moderate magnitude.

To further enhance increased employment opportunity benefits associated with the Master Plan, the proponent, future construction companies and warehouse tenants should also consider partnering with local colleges and TAFEs to provide students with part-time work and career development opportunities.

It is noted that the proponent has been engaging with relevant commercial stakeholders through the Master Plan process. Council has also recommended that the proponent undertakes consultation with key business groups (e.g. Business Western Sydney) which could be undertaken during future planning stages.

7.8. DECISION-MAKING SYSTEMS

Based on the current information available and stage of development, social impacts in relation to decision-making systems were not identified as part of the impact scoping for the Master Plan.

7.9. CUMULATIVE SOCIAL IMPACTS

Cumulative impacts are a result of incremental, sustained and combined effects of human action and natural variations over time and can be both positive and negative (DPHI 2022). They can be caused by the compounding effects of a single project or multiple projects in an area, and by the accumulation of effects from past, current and future activities as they arise. As the site is located within the Western Sydney Aerotropolis where there are many other projects in the planning and design phase, there is potential for cumulative social impacts to occur.

While there is a possibility for cumulative social impacts associated with air quality and noise during the construction phase to occur, it is difficult to accurately assess these impacts as timing for construction of development on the site and surrounding sites is not known. The communities most impacted by cumulative social impacts associated with construction would be existing residents to the east of the site in Kemps Creek.

At this stage, this SIA cannot accurately assess cumulative impacts during operation as the specific uses of the Master Plan and development on surrounding landholdings are not known.

To minimise cumulative social impacts, it is recommended that detailed acoustic and air quality assessments and construction management plans are prepared prior to the construction of warehouse units and built form developments on the site. These assessments should consider impacts from other nearby development sites to identify any cumulative impacts.

The Master Plan, along other planned developments within the Aerotropolis, will contribute to a cumulative increase in urban heat, which is discussed in Section 7.5.5. The recommendations in Section 7.5.5 should be implemented to minimise this cumulative impact.

8. MITIGATION, ENHANCEMENT AND MANAGEMENT

This section provides a summary of:

- Identified social impacts and benefits
- Corresponding unmitigated risk rankings, and
- Mitigated risk rankings.

To inform the implementation of the proposed mitigation and enhancement strategies, key potential stakeholder and/or partners have been identified. The involvement and participation of these key stakeholders and/or partners in the monitoring and management of social impacts and social benefits will improve the outcomes of the proposed mitigation and management strategies.

Not all potential impacts are the responsibility of the proponent to mitigate or manage. In some cases, their role may be to cooperate or inform the mitigation, provide data and information to future tenants.

A summary of the identified social impacts and benefits, risk ratings and proposed mitigation, enhancement and management strategies is provided in Table 16.

Table 16 Summary of proposed mitigation, enhancement and management of social impacts and benefits

Theme	Matter	Unmitigated / Unenhanced	Mitigated / Enhanced	Responsibility	Potential partners	Proposed mitigation, enhancement and management	Further SIA recommendations
Culture	Potential disruption to local Aboriginal sites	Impact: Low	Impact: Low	Ingham Property Group Future developers	Registered Aboriginal Parties Local Aboriginal and Torres Strait Islander communities, groups, and artists Liverpool City Council	The Aboriginal Cultural Heritage Assessment provides four mitigation measures to protect the 12 Aboriginal sites identified within the site and to enhance the interpretation of Aboriginal cultural values across the site (Eco Logical 2024).	No further recommendations are proposed.
Culture	Incorporation of Aboriginal culture and heritage	Benefit: Medium	Benefit: High	Ingham Property Group Future developers	Registered Aboriginal Parties Local Aboriginal and Torres Strait Islander communities, groups and artists Liverpool City Council	<p>The Draft Connecting with Country Framework (Yerrabingin 2024) recommends ongoing consultation with Aboriginal and Torres Strait Islander communities, including RAPs and local Aboriginal artists, to guide the detailed design of the proposal.</p> <p>The Public Art Strategy (Site Image 2024a) and the Public Domain Landscape Strategy (Site Image 2024b) also identified several public art opportunities where Indigenous art and expressions of Aboriginal culture and heritage could be incorporated.</p>	<p>This SIA recommends for Aboriginal and Torres Strait Islander employment opportunities be made available where possible. An example of this could be employing an individual or team to manage a native food garden in the local centre.</p> <p>This SIA also recommends that large gathering spaces along the riparian corridors can be freely used by Indigenous groups to perform ceremonies or share stories. This should be done in consultation with local Aboriginal and Torres Strait Islander communities.</p>
Culture	Potential disruption to European historical heritage	Impact: Low	Impact: Low	Ingham Property Group Future developers	N/A	The Historical Heritage Assessment (Eco Logical 2024b) recommends that an ‘unexpected finds procedure’ is adopted.	No further recommendations are proposed.
Health and wellbeing	Impacts related to air quality	Impact: Unable to be assessed (refer to Section 8.5.1)	Impact: Low	Ingham Property Group Future developers	Air quality consultants	<p>The Air Quality Assessment (SLR Consulting 2024) contains an assessment of assessment of the potentially relevant future industries and their recommended locations based on minimum separation distances from surrounding sensitive receivers. This helps to guide the location of specific uses within the Master Plan area to minimise potential impacts on surrounding sensitive receivers and is therefore a mitigation measure. It also recommends minimising vehicle idling times and designing future buildings in accordance with AS1668.2-2012 which includes criteria for ensuring indoor ventilation and air conditioning adequately reduces emissions.</p> <p>Additional mitigation measures which aim to promote public and active transport use have also been proposed which will help to reduce air quality emissions from private motor car use. These include preparation of a public transport and active master plan, as outlined in the Urban Design Report (Urbis 2024) and preparation of a Travel</p>	No further recommendations are proposed.

Theme	Matter	Unmitigated / Unenhanced	Mitigated / Enhanced	Responsibility	Potential partners	Proposed mitigation, enhancement and management	Further SIA recommendations
						Plan prior to the issue of the occupation certificate for future development.	
Health and wellbeing	Impacts related to noise	Impact: Medium	Impact: Medium	Ingham Property Group Future developers	Acoustic consultants	<p>The Noise Planning Assessment (EMM 2024) provides noise goal allowances for the entire site and for individual industrial lots to ensure future development does not have adverse noise impacts on surrounding sensitive receivers. It also identifies additional mitigation measures, including undertaking additional noise assessments to accompany CDCs for future development and preparing a Construction Noise and Vibration Impact Assessment (CNVIS) or Construction Noise and Vibration Management Plan (CNVMP) prior to construction of a specific lot.</p> <p>Additional mitigation measures which aim to promote public and active transport use have also been proposed which will help to reduce road traffic noise from private motor car use. These include preparation of a public transport and active master plan, as outlined in the Urban Design Report (Urbis 2024) and preparation of a Travel Plan prior to the issue of the occupation certificate for future development.</p>	As per the Noise Planning Assessment, further assessment of road traffic noise for the road adjacent to the eastern panhandle may need to be undertaken, subject to finalisation of road alignments and confirmation of expected traffic volumes.
Health and wellbeing	Increased urban heat island	Impact: High	Impact: Medium	Ingham Property Group Future developers	Liverpool City Council	The Public Domain Landscape Strategy (Site Image 2024b) proposes a range of landscaping inclusions which will help reduce the urban heat island effect.	No further recommendations are proposed.
Health and wellbeing	Provision of social infrastructure within the site	Benefit: Medium	Benefit: High	Ingham Property Group Future developers	Childcare and medical centre operators Liverpool City Council	<p>The Urban Design Report (Urbis 2024c) shows the indicative locations for the social infrastructure recommended in Section 6.4.1.</p> <p>The Master Plan (SBA 2024) includes a well-connected and accessible open space network. The Public Domain Landscape Strategy Design (Site Image 2024b) shows the proposed embellishment of these open spaces which include walk and cycling paths, seating and picnic and areas and open grass areas for informal sport activities.</p>	This SIA recommends that the floor areas and detailed designs for the recommended multipurpose community centre, childcare centre and private medical centre are determined during the preparation of the complying development certificate/s for the local centre with input from a social planning consultant and Council.
Surroundings	Creating a safe urban environment	Benefit: Medium	Benefit: High	Ingham Property Group Future developers	Liverpool City Council Future local businesses	<p>The CPTED Assessment (Urbis 2024a) indicates that the proposal incorporates the four CPTED principles (surveillance, access control, territorial reinforcement and space and activity management) which helps to create a safe urban environment.</p> <p>The CPTED assessment also provides a range of recommendations outlined to further reduce crime risk and create a safe urban environment are implemented. Many of these recommendations can be implemented in the detailed design or operation stage.</p>	This SIA also recommends that place making opportunities, such as food trucks and pop-up cafes are provided to activate open spaces once the site is operational.
Surroundings	Loss of agricultural capable land	Impact: High	Impact: Neutral	N/A	N/A	The Agribusiness Precinct, comprising 1,560 ha and located on the western edge of the Western Sydney Airport will provide new intensive and innovative food production and food-related freight and distribution facilities.	No further recommendations are proposed.

Theme	Matter	Unmitigated / Unenhanced	Mitigated / Enhanced	Responsibility	Potential partners	Proposed mitigation, enhancement and management	Further SIA recommendations
Livelihoods	Increased construction and operational employment opportunities	Benefit: Medium	Benefit: High	Ingham Property Group Future businesses operating at the site	Future local businesses Universities, colleges and/or TAFEs	<p>The Master Plan proposes public and active transport infrastructure and services to connect the site to the future Aerotropolis Metro Station, and several centres across Western Sydney. Travel Plans to increase public and active transport usage to, from and around the site will also be prepared for future development.</p> <p>These measures are expected to enhance employment opportunities as future workers who do not drive or have access to a car can access the site.</p> <p>While inclusion public and active transport measures is expected to enhance this benefit, the enhanced benefit cannot be reassessed until further details about public and active transport are available.</p>	<p>This SIA recommends that proponent continues to engage with TfNSW regarding the proposed public transport network within the site.</p> <p>The proponent, future construction companies and warehouse tenants should also consider partnering with local colleges and TAFEs to provide students with part-time work and career development opportunities.</p> <p>It is also recommended that the proponent undertakes consultation with key business groups (e.g. Business Western Sydney) during future planning stages.</p>

REFERENCES

This SIA has been informed by a range of data sources, information and technical studies. The following data sources have been used:

Demographic, crime and health data

Australian Bureau of Statistics, Census of Population and Housing, 2021, Greater Sydney, Liverpool LGA (SA3) and Badgerys Creek (SA2) data.

Australian Curriculum, Assessment and Reporting Authority, 2021, School enrolment data.

NSW Bureau of Crime Statistics and Research, Badgerys Creek, Liverpool LGA and NSW hotspot maps and crime rates.

NSW Department of Planning, Housing and Infrastructure, 2022, NSW population projections.

Policy documents

GHD, 2021, Western Sydney Aerotropolis Social Infrastructure Strategy, Report 1: Social Infrastructure Audit.

GHD, 2022, Western Sydney Aerotropolis Social Infrastructure Strategy, Report 2: Social Infrastructure Needs Assessment.

Greater Sydney Commission, 2018, Western City District Plan.

Liverpool City Council, 2018, Open Space and Sports Strategy.

Liverpool City Council, 2020, Local Strategic Planning Statement.

Liverpool City Council, 2020, Social Impact Assessment Guidelines.

NSW Department of Planning, Housing and Infrastructure, 2021a, Western Sydney Aerotropolis Open Space Needs Study.

NSW Department of Planning, Housing and Infrastructure, 2021b, Western Sydney Aerotropolis Development Control Plan.

NSW Department of Planning, Housing and Infrastructure, 2021, Social Impact Assessment Guideline for State Significant Projects.

NSW Department of Planning, Housing and Infrastructure, 2020, Western Sydney Aerotropolis Plan.

NSW Department of Planning, Housing and Infrastructure, 2022a, Western Sydney Aerotropolis Development Control Plan Phase 2.

NSW Department of Planning, Housing and Infrastructure, 2022b, Cumulative Impact Assessment Guidelines for State Significant Projects.

NSW Department of Planning, Housing and Infrastructure, 2023, Social Impact Assessment Guideline.

NSW Department of Planning, Housing and Infrastructure, 2023, Western Sydney Aerotropolis Precinct Plan.

Technical studies prepared for this proposal

Civille, 2024, Sustainability Strategy and Ecological Sustainable Development Report.

Eco Logical, 2024a, Aboriginal Cultural Heritage Assessment.

Eco Logical, 2024b, Historical Heritage Assessment.

EMM, 2024, Noise Planning Assessment.

SBA Architecture, 2024, Design Quality Strategy.

Site Image, 2024a, Public Art Strategy.

Site Image, 2024b, Public Domain Landscape Strategy.

SLR Consulting, 2024, Air Quality Assessment.

Urbis, 2024a, CPTED Assessment.

Urbis, 2024b, Economic Assessment.

Urbis 2024c, Urban Design Report.

Yerrabingin, 2024, Draft Designing with Country Framework.

DISCLAIMER

This report is dated 19 June 2024 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of INGHAM PROPERTY GROUP (**Instructing Party**) for the purpose of SOCIAL IMPACT ASSESSMENT (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

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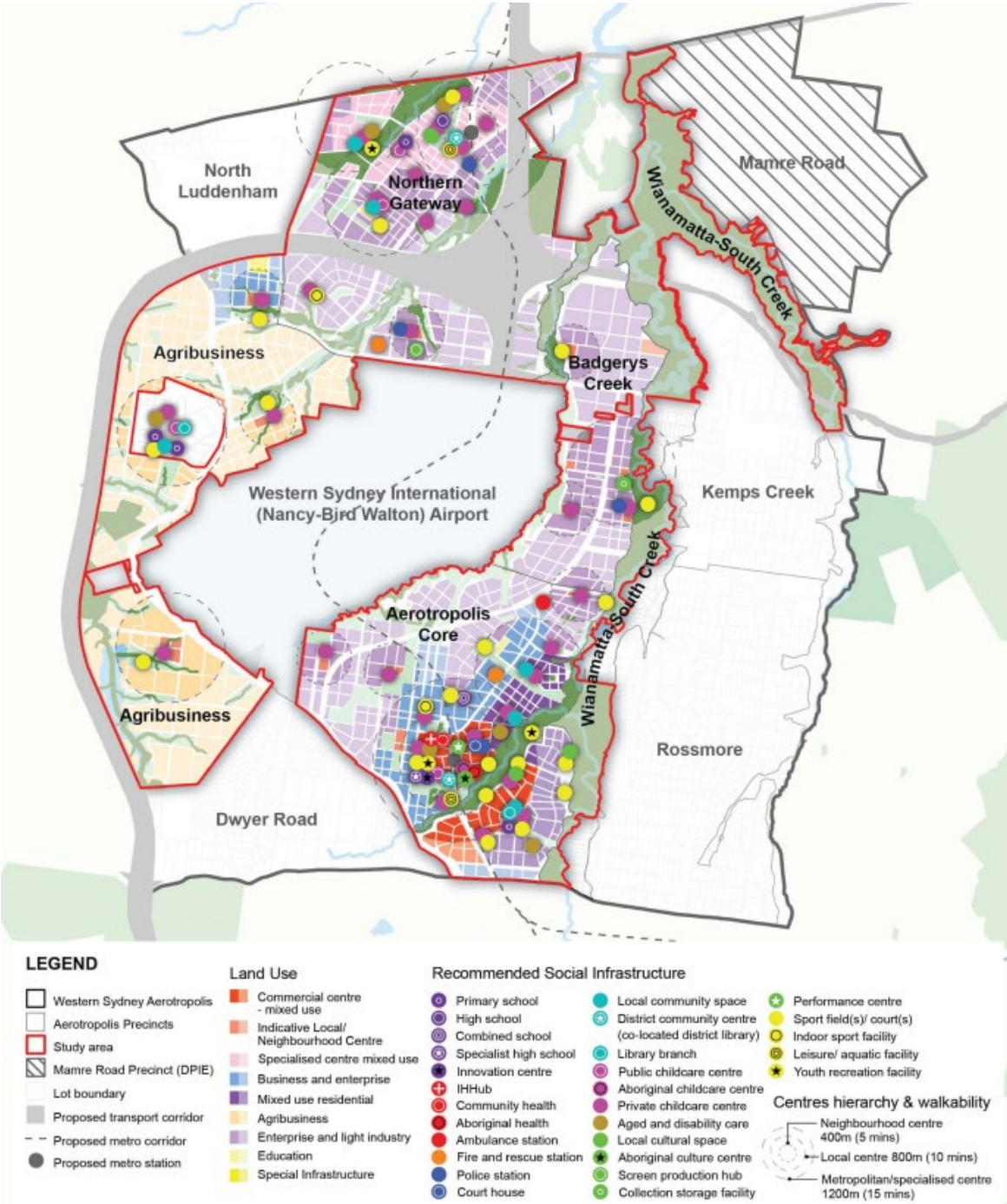
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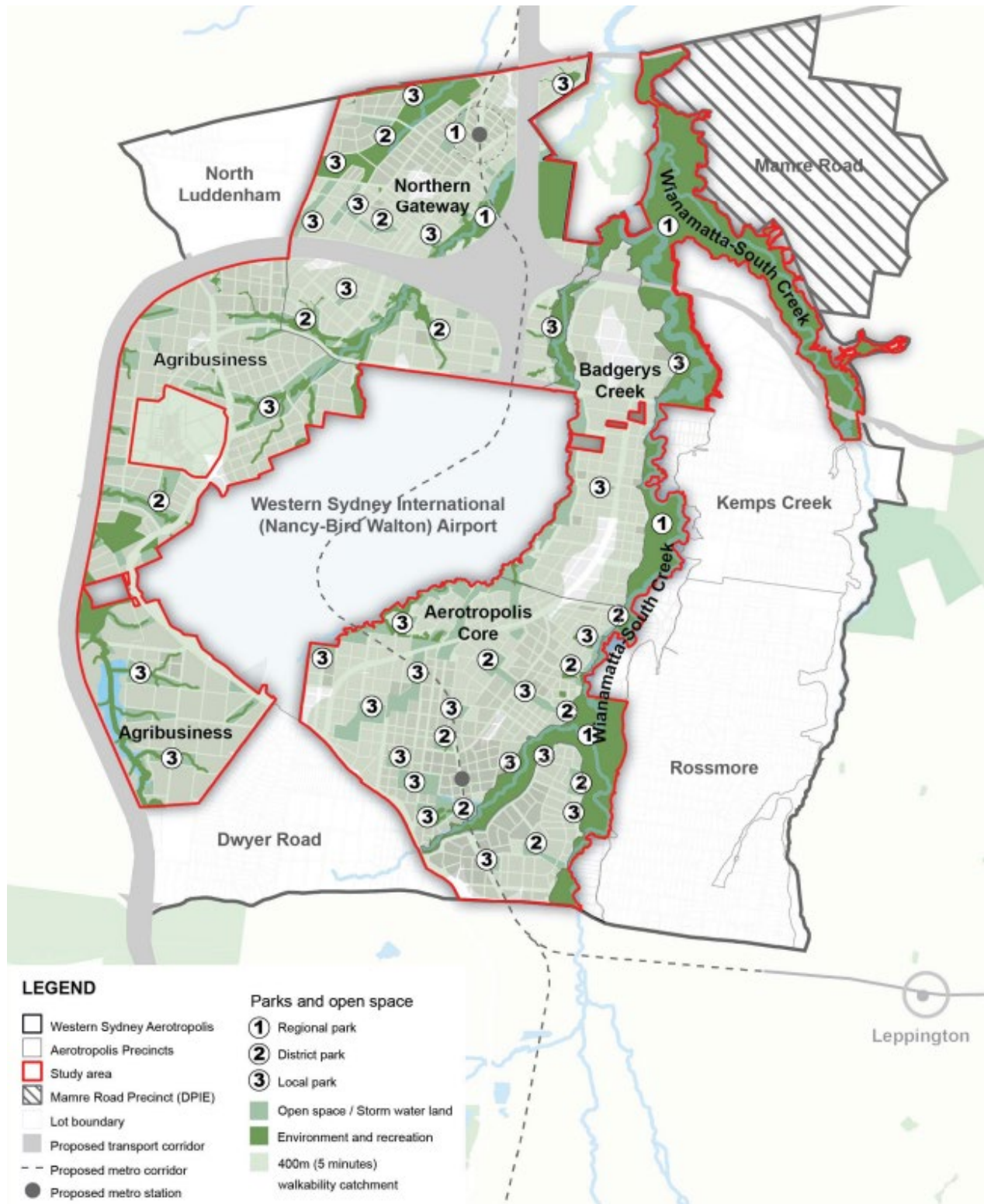
APPENDIX A WESTERN SYDNEY AEROTROPOLIS SOCIAL INFRASTRUCTURE AND OPEN SPACE MAPPING

Figure 11 Map of social infrastructure recommended for the Aerotropolis



Source: WSA Social Infrastructure Needs Assessment, p. 93 (GHD, 2022)

Figure 12 Map of open space recommended for the Aerotropolis



Source: WSA Social Infrastructure Needs Assessment, p. 94 (GHD, 2022)

APPENDIX B COMMUNITY NEWSLETTER

Figure 13 Community newsletter

INGHAM PROPERTY GROUP, BADGERYS CREEK

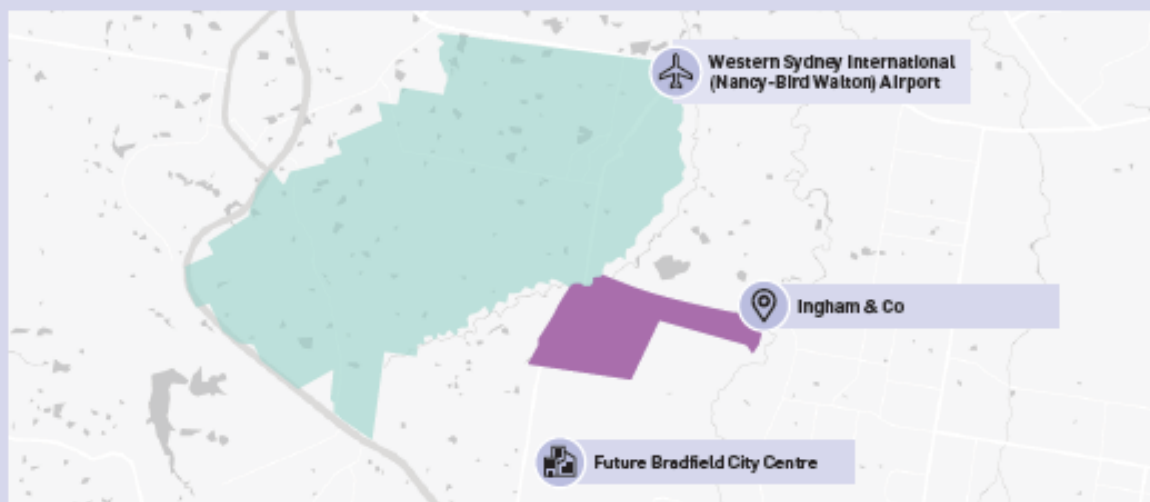
SUPPORTING THE FUTURE OF BRADFIELD CITY CENTRE AND THE NEW INTERNATIONAL AIRPORT

June 2023

Ingham Property Group (IPG) is planning to develop Ingham & Co, within the Aerotropolis Core Precinct of the Western Sydney Aerotropolis.

It will be a significant project, supporting the International (Nancy-Bird Walton) Airport and the NSW Government's vision to improve jobs, services and connections within the Greater Sydney Region.

The development of Ingham & Co will support the local economy and create jobs closer to home.



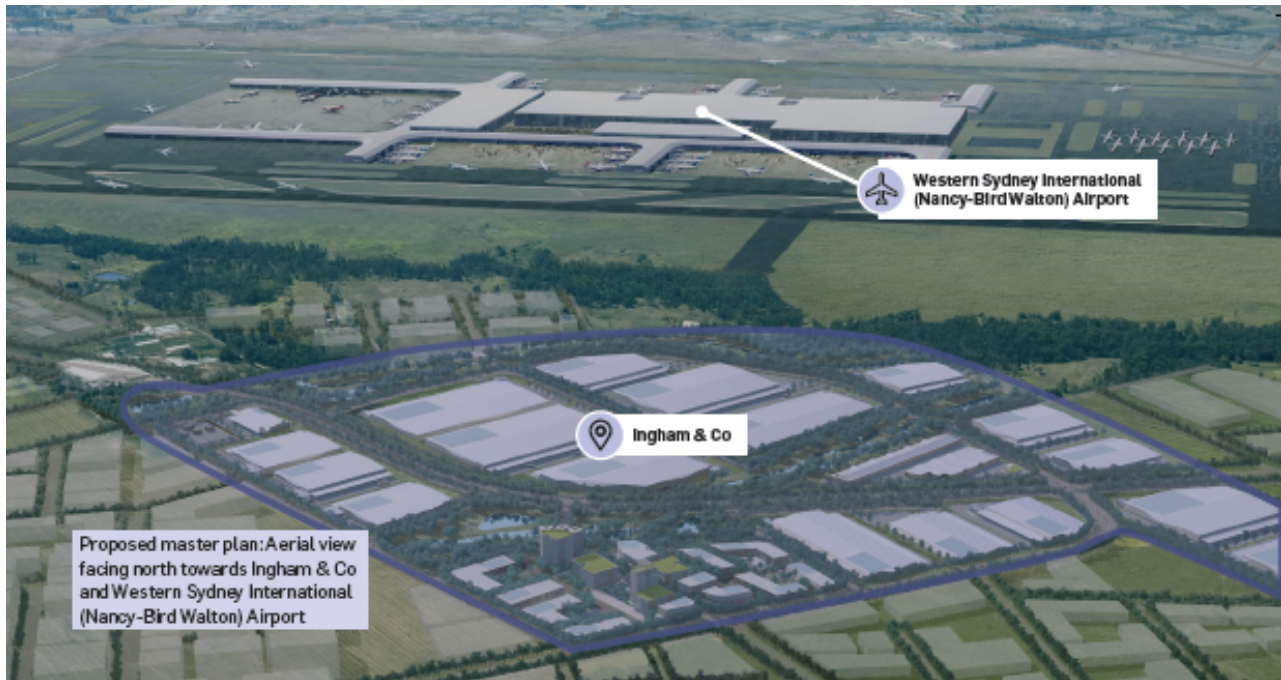
About the proposal

- The site is located at 475 Badgerys Creek Road, Bradfield (directly between the Western Sydney International Airport and the future Bradfield City Centre).
- We're calling the project Ingham & Co.
- The intent of Ingham & Co is to become a logistics, business and employment hub to support the early and ongoing success of Bradfield and the new international airport.
- The design will respect Aboriginal cultural values and integrate with the local environment.

At 182 hectares and located between the Western Sydney International Airport and the future Bradfield City Centre, the project will play a critical role in supporting the Government's vision for the Aerotropolis.

If approved, Ingham & Co will:

- Deliver a fast connection to the future Bradfield CBD, Liverpool CBD and the region.
- Create more than 5,300 jobs from 2030 retail, commercial, industrial.
- Deliver 29 lots consisting of warehouse buildings, open public space, green landscaping, office space and retail shopping options.
- Complement the functions of Bradfield to become a cyber-secure, advanced, green and connected hub for advanced industries.



Next steps

We are committed to engaging with near neighbours and the community as plans for Ingham & Co develop.

The master plan application is being prepared through a Technical Assurance Panel (TAP). The TAP is a process that enables us to work closely with the NSW Government's Department of Planning and Environment (DPE) to deliver on this shared vision.

The TAP is due to make a recommendation on our master plan to DPE by November 2023. Plans will then go on public exhibition. At this time, the community will have the opportunity to review plans in detail and provide a formal submission via DPE to be considered.

Managing social impacts and benefits

Urbis is also preparing a Social Impact Assessment (SIA) to inform the master plan. A SIA is an independent, objective study undertaken to identify and analyse potential social impacts and benefits associated with a proposed development. The SIA is being prepared in accordance with the NSW Department of Planning and Environment's (DPE) Social Impact Assessment Guideline (2023) and will be reviewed by DPE.

To inform the SIA, Urbis is engaging with the community and key stakeholders to better understand the local area and to obtain feedback on potential social impacts and benefits of the proposal.

The following questions have been prepared to seek feedback from the community and key stakeholders:

- Are you a resident or a business owner/employee? How long have you been residing at your current home or working at your current workplace?
- What social challenges or impacts do you think the proposed development would create for the community during construction and operation? How could these be mitigated or managed?
- What social benefits do you think the proposed development would create for the community during construction and operation? How could these be maximised?
- Are there any vulnerable members of the community that may be impacted by the proposed development? Which groups are these? How could this impact be minimised?

HOW TO GET IN TOUCH

We are committed to engaging with near neighbours and the community as plans for Ingham & Co develop. IPG are working with consultants from Urbis to manage any enquiries associated with this project.

For feedback managing social impacts and benefits (in response to questions above), please email communityplanningteam@urbis.com.au

To register for updates, ask questions, or for more information you can contact us on:

✉ engagement@urbis.com.au

☎ 1800 244 863

