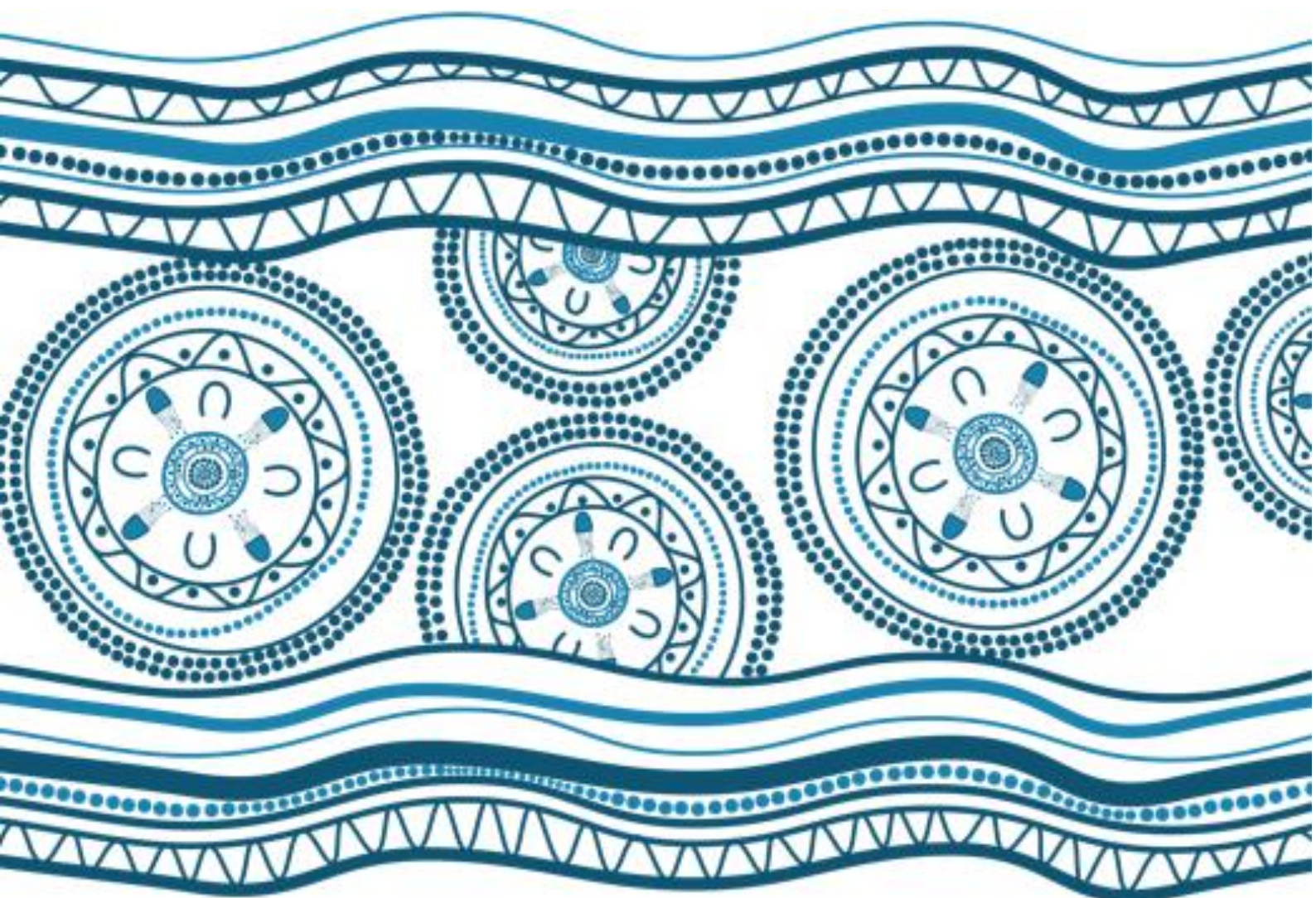


Appendix N

Socioeconomic Impact Assessment Report



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Transport for NSW

Kamay Ferry Wharves Project

**Socioeconomic Impact Assessment
Report**

KFW01-ARUP-BPW-HF-RPT-000072

Final | 25 March 2021

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 273023-00

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Author

This report has been prepared in accordance with reference to the Secretary's Environmental Assessment Requirements (SEARs) for the project. It has also been prepared to align with Transport for NSW's Socio-economic Assessment Environmental Impact Assessment Practice Note EIA-N05 (Environmental Planning and Assessment Team, 2020) – referred to as 'guidance note EIA-N05'. Regard has also been had for the former Department of Planning, and Environment's (DPE) Social Impact Assessment Guideline (September 2017). It has been prepared by a suitably qualified and experienced lead author who holds appropriate qualifications and has relevant experience to carry out the socio-economic impact assessment for this project.

The lead author is a Registered Planner of the Planning Institute of Australia, within Arup's Economics, Planning and Design team, with more than 7 years of experience across urban and social planning policy, strategy and impact. They have a strong portfolio of social and socio-economic impact assessment projects for a range of infrastructure and mixed-use development projects, including social inputs to environmental impact assessments for major road and rail projects in Queensland, New South Wales, Victoria and the Australian Capital Territory, as well as numerous UK based transport and infrastructure projects.

The author declares that this Socio-economic impact Assessment report:

- Was completed on 25 March 2021.
- Has been prepared in accordance with the Environmental Impact Assessment (EIA) process under the *Environmental Planning and Assessment Act 1979* (EP&A Act).
- Has been prepared in alignment with the Transport for New South Wales Socio-economic Assessment Environmental Impact Assessment Practice Note EIA-N05 (Environmental Planning and Assessment Team, 2020) – referred to as 'guidance note EIA-N05'. Regard has also been had for the former Department of Planning, and Environment's (DPE) Social Impact Assessment Guideline (September 2017).
- Contains all reasonably available information relevant to socio-economic impact assessment (SEIA).
- Contains information that is neither false nor misleading.

Limitations and assumptions are outlined in Section 2.8.

1 Introduction

Transport for New South Wales (Transport for NSW) is seeking approval to reinstate the ferry wharves at La Perouse and Kurnell in Botany Bay (the project) under Division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as State significant infrastructure.

This socioeconomic impact assessment (SEIA) provides an assessment of the potential positive and negative social and economic impacts associated with the proposed Kamay Ferry Wharves Project (the project). It supports the Environmental Impact Statement (EIS) prepared for the project.

This section provides an introduction to the project and applicant, as well as setting out the purpose and structure of this SEIA report.

1.1 Project overview

The project would allow for an alternative connection between La Perouse and Kurnell rather than by road. The primary purpose of this infrastructure would be to enable the operation of a public ferry service, for visitors to the area and for the local community, for cultural and recreational purposes. It would also provide supplementary temporary mooring for tourism-related commercial vessels and recreational boating.

The project provides opportunities for significant cultural and economic benefits to the local Aboriginal community by improving access to culturally significant sites. It is also expected to deliver benefits and opportunities to wider communities on either side of Botany Bay, such as investment opportunities in a new ferry service and other new visitor/tourist experiences.

The project includes the reinstatement of two public ferry wharves and associated infrastructure to allow a ferry service to operate between La Perouse and Kurnell in Botany Bay.

Key features of the project include:

- Two new wharves, one at La Perouse and one at Kurnell that would include:
 - Berth for ferries (to accommodate vessels up to 40m long)
 - Berth for recreational and commercial vessels (to accommodate vessels up to 20m long)
 - Sheltered waiting areas and associated furniture
 - Additional space within waiting areas to accommodate other users such as fishing and those using recreational vessels
 - Signage and lighting.
- Landside paving, access ramps, seating and landscaping at the entrance to the wharves

- Reconfiguration of existing car parking areas at La Perouse to increase the number of spaces (including provision of accessible parking and kiss-and-ride bays)
- Reconfiguration of footpaths around the new car parking areas at La Perouse
- Provision for bike racks at La Perouse
- Installation of utilities to service the wharves.

Additional car parking will be provided at Kurnell as part of the wider Kamay Botany Bay National Park Kurnell Master Plan upgrades delivered by National Parks and Wildlife Services (NPWS).

The total construction period is anticipated to take up to 13 months, starting in early 2022. The construction of the two wharves will occur at the same time with landside and waterside works occurring simultaneously. Construction will cover three main stages:

- Stage 1: Site establishment
- Stage 2: Main construction
- Stage 3: Site demobilisation.

Construction would take place between standard working hours Monday to Friday 7am to 6pm, and Saturday 8am to 1pm. There would be no work on Sundays or public holidays. However, being within a marine environment, the project would require several activities to be undertaken outside standard working hours for safety reasons.

Upon operation, the wharves would provide berthing access for both ferry vessels and commercial and recreational vessels. Each ferry berth would be capable of accommodating up to three vessels per hour and enable a turnaround time of around 15 minutes from berthing to departing. This would result in approximately 36 vessel movements a day during daylight hours.

A concept design has been developed for the project, which forms the basis of this assessment. Throughout the EIS, the location and general area including the construction and operation of the project is called the “project area”.

1.2 Project location

The project is located at La Perouse and Kurnell on either side of the ocean entrance to Botany Bay. Both sites are located in the Kamay Botany Bay National Park, about 14-kilometres south of the Sydney CBD. The project (including the construction area) covers an area of about one square kilometre, stretched over both the Randwick City and Sutherland Shire local government areas (LGAs).

Botany Bay is a place of significant historical and cultural importance. It has Aboriginal cultural sites dating back thousands of years and is the location of the first landing of Captain James Cook in 1770.

Present day Botany Bay contains Port Botany, one of Australia's largest container ports, and the Caltex (now Ampol) operated oil terminal at Kurnell. It is also

home to Sydney's international airport and a popular waterway for small commercial and recreational boating activities. The bay is also home to a diverse and unique marine population including protected sea grasses and the world's largest population of weedy sea dragon.

From 1890 a ferry service operated intermittently between wharves at La Perouse and Kurnell until 1974 when wharves were damaged in a severe storm.

The project area and location at both La Perouse and Kurnell is shown in Figure 1, Figure 2, and Figure 3.

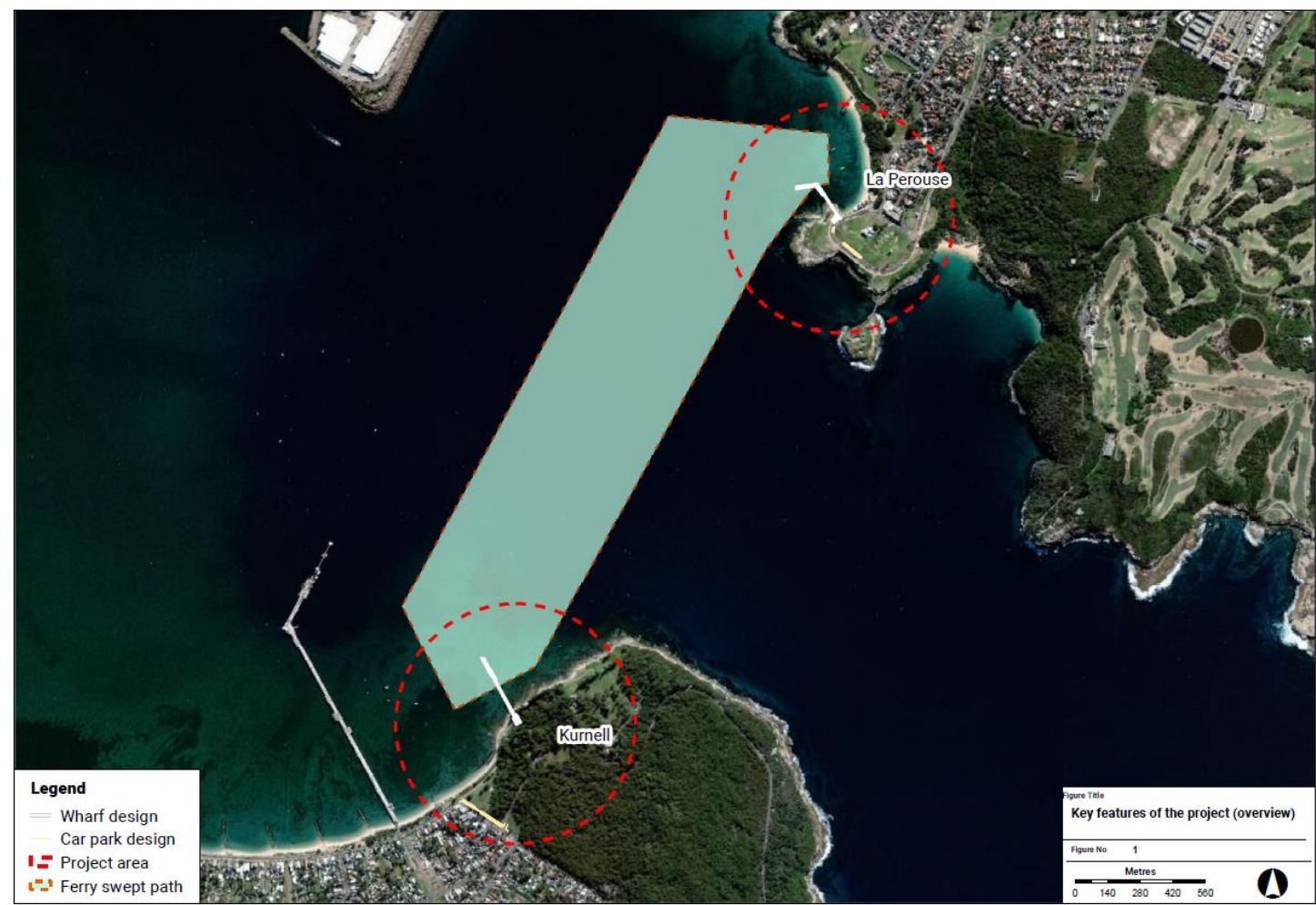




Figure 2: Location of proposed wharf at La Perouse.



Figure 3: Location of the proposed wharf at Kurnell.

1.3 Purpose of this report

The overarching purpose of this SEIA is to identify and assess the social and economic benefits and impacts of the project on local communities, businesses and stakeholders – including those experiencing direct impacts as a result of the project, and those in the wider area that may experience more indirect impacts, during both construction and / or operational stages of the project.

This SEIA was produced with reference to the Secretary’s Environmental Assessment Requirements (SEARs). It has also been prepared to align with Transport for NSW’s Socio-economic Assessment Environmental Impact Assessment Practice Note EIA-N05 (Environmental Planning and Assessment Team, 2020) – referred to as ‘guidance note EIA-N05’. In preparing this SEIA, regard has also been had for the former Department of Planning, and Environment’s (DPE) Social Impact Assessment Guideline (September 2017) – referred to as DPE’s Social Impact Assessment Guideline where relevant.^{1 2}

In line with the requirements set out in the SEARs and the guidance notes, this report will:

- Describe the social profile of communities and businesses within the vicinity of the project, and define community and social values, perceptions and potential concerns.
- Identify and analyse the potential social and economic impacts of the project, from the points of view of the affected community/ies and other relevant stakeholders.
- Assess the significance of social and economic impacts (positive and negative) considering likelihood, extent, duration, severity / scale, sensitivity/importance, and level of concern / interest.
- Include mitigation, management and enhancement measures for likely social and economic impacts, and assess any residual impacts.
- Summarise how social and economic impacts will be adaptively monitored and managed over time.

1.4 SEARs relevant to this report

Table 1 identifies the SEARs which are relevant to this technical assessment, and where they are addressed in this report. There are a series of wider SEARs of relevance to technical assessments drawn upon in this SEIA (e.g. noise and vibration). The full SEARs are summarised in the EIS.

¹ This department is now known as the Department of Planning, Industry and Environment (DPIE).

² It is noted that a draft update to this document has been issued by DPIE and is currently out for consultation. Given the status of this guideline remains in draft and potential change is unknown, this guidance document has not been significantly relied upon.

Table 1: SEARs for socioeconomics

SEARs relevant to this technical report	Where addressed in this technical report
3. Assessment of Key Issues* Key issue impacts are assessed objectively and thoroughly to provide confidence that the project will be constructed and operated within acceptable levels of impact. * Key issues are nominated by the Proponent in the SSI project application and by the Department in the SEARs. Key issues need to be reviewed throughout the preparation of the EIS to ensure any new key issues that emerge are captured. The key issues identified in this document are not exhaustive but are key issues common to most SSI projects.	
1. The level of assessment of likely impacts must be proportionate to the significance of, or degree of impact on, the issue, within the context of the project location and the surrounding environment. The level of assessment must be commensurate to the degree of impact and sufficient to ensure that the Department and other government agencies are able to understand and assess impacts.	The level of assessment is described and justified in Section 2 – Methodology
2. For each key issue the Proponent must: (a) describe the biophysical, social and economic environment, as far as it is relevant to that issue, including baseline data that is reflective of current guidelines where relevant; (b) describe the legislative and policy context, as far as it is relevant to the issue; (c) identify, describe and quantify (if possible) the impacts associated with the issue, including the likelihood and consequence (including worst case scenario) of the impact (comprehensive risk assessment), the impact (comprehensive risk assessment), the impacts of concurrent activities within the project and cumulative impacts; (d) demonstrate how potential impacts have been avoided (through design, or construction or operation methodologies); (e) detail how likely impacts that have not been avoided through design will be minimised, and the predicted effectiveness of these measures (against performance criteria where relevant); and detail how any residual impacts will be managed or offset, and the approach and effectiveness of these measures.	The social and economic environment, and policy context is summarised in Section 3 – Social and economic baseline. A description and assessment of the impacts, including an assessment of significance is summarised in Section 5 – Assessment of potential construction impacts, Section 6 – Assessment of potential operational impacts and Section 7 – Summary and evaluation of impacts. Mitigation, management and avoidance measures are summarised in Section 8 – Environmental management measures, and residual impacts assessed in Section 9 – Summary of residual impacts.
3. Where multiple reasonable and feasible options to avoid or minimise impacts are available, they must be identified and considered, and the proposed measure justified taking into account the public interest.	Mitigation and management measures are summarised in Section 8 – Environmental management measures.

SEARs relevant to this technical report	Where addressed in this technical report
<p>8. Social and Economic</p> <p>The project minimises adverse social impacts and capitalises on opportunities potentially available to affected communities.</p> <p>The project minimises impacts to property and business and achieves appropriate integration with adjoining land uses, including maintenance of appropriate access to properties and community facilities, and minimisation of displacement of existing land use activities, dwellings and infrastructure.</p>	
<p>1. Potential social impacts of the project from the points of view of the affected community/ies and other relevant stakeholders, i.e. how they expect to experience the project.</p>	<p>A description and assessment of the potential socio-economic impacts, including an assessment of significance is summarised in Section 5 – Assessment of potential construction impacts, Section 6 – Assessment of potential operational impacts and Section 7 – Summary and evaluation of impacts.</p>
<p>2. How potential environmental changes in the locality may affect people's (including, but not limited to):</p> <p>(a) community;</p>	<p>A description and assessment of the potential socio-economic impacts, including an assessment of significance is summarised in Section 5 – Assessment of potential construction impacts, Section 6 – Assessment of potential operational impacts and Section 7 – Summary and evaluation of impacts.</p>
<p>(b) access to and use of infrastructure, services, and facilities;</p>	<p>Potential socio-economic impacts to access to and use of infrastructure, services, and facilities are summarised in Sections 5.7 (construction) and 6.7 (operation).</p>
<p>(c) culture;</p>	<p>Potential socio-economic impacts to culture are summarised in Sections 5.5.3 (construction) and 6.5.3 (operation).</p>
<p>(d) decision-making systems; and</p>	<p>Potential socio-economic impacts to decision-making systems are summarised in Sections 5.5.5 (construction) and 6.5.5 (operation).</p>

SEARs relevant to this technical report	Where addressed in this technical report
(e) fears and aspirations, as relevant and considering how different groups may be disproportionately affected.	Potential socio-economic impacts to fears and aspirations are summarised in Sections 5.5.4 (construction) and 6.5.4 (operation).
3. The potential disruption and restrictions arising from the construction and operation of the project on the recreational uses in Frenchmans Bay and Kurnell, including swimming, snorkelling, sailing and beach users.	Potential socio-economic impacts to recreational uses are summarised in Sections 5.7 (construction) and 6.7 (operation).
4. Social actions and outcomes that address both negative and positive social impacts.	A description and assessment of the potential socio-economic impacts, including an assessment of significance is summarised in Section 5 – Assessment of potential construction impacts, Section 6 – Assessment of potential operational impacts and Section 7 – Summary and evaluation of impacts.
5. Potential impacts to properties, businesses, recreational users and land and water users (for example, recreational fishers, commercial fishers and aquaculture activities), including property acquisitions/adjustments, access, amenity and relevant statutory rights.	<p>Potential socio-economic impacts to properties are summarised in Sections 5.1 (construction) and 6.1 (operation).</p> <p>Potential socio-economic impacts to businesses are summarised in Sections 5.3 (construction) and 6.3 (operation).</p> <p>Potential socio-economic impacts to recreational uses are summarised in Sections 5.7 (construction) and 6.7 (operation).</p>

A series of agency comments were also received alongside the SEARs. Particular points raised of relevance to the SEIA include the need to consider the following potential impacts:

- Provision of appropriate fishing amenities and increased mooring opportunities for boaters that do not impact on the adjacent seagrass beds (DPI Fisheries).
- Improved economic vibrancy as a result of the reintroduced Kurnell to La Perouse ferry, and greater visitor facilities and experience, compatible with the unique character of Botany Bay (Randwick City Council).
- Re-establishment of the local Aboriginal community's strong connection with Kurnell through improved water access (Randwick City Council).
- Potential disruption and restrictions arising from the construction and operation on the existing recreational uses in Frenchmans Bay and around Bare Island (Randwick City Council).

1.5 Report structure

This SEIA is structured as follows:

- Section 1 – introduces the project and assessment
- Section 2 – sets out the scope, methodology, and study area for the SEIA
- Section 3 – presents the baseline for the social and economic context
- Section 4 – summarises similar projects and the relevant social and economic impacts to inform the SEIA
- Section 5 – assesses the likely impacts associated with the project during construction
- Section 6 - assesses the likely impacts associated with the project during operations
- Section 7 – assesses the significance of the identified impacts
- Section 8 – outlines proposed mitigation and management measures
- Section 9 – summarises the residual impacts associated with project
- Section 10 – provides references.

2 Methodology

This section details the methodology used to define the baseline and undertake the assessment of potential socioeconomic impacts of the project. This methodology has been designed to align primarily with guidance note EIA-N05 (Transport for NSW, 2020), and is influenced also by the DPE Social Impact Assessment Guideline (DPE, 2017).

The methodology includes the following steps:

- Definition of the area of socioeconomic influence for the project
- Review of existing information to establish a social and economic baseline
- Identification, analysis and evaluation of the potential social and economic impacts of the project, and their significance
- Planning mitigation, management and monitoring actions to address potential impacts
- A review of residual impacts.

In line with guidance note EIA-N05, socio-economic impacts are considered to include impacts associated with changes to people's:

- Way of living, working, playing and interacting
- Movement about their area
- Culture
- Community
- Access to and use of community services, facilities and social networks
- Physical and psychological health and well-being
- Fears and aspirations
- Assets, such as property, housing or business
- Personal or business income and expenses
- Employment
- Environment.

Socio-economic impacts are defined to include both the potential positive and negative impacts associated with the project.

Cumulative impacts are not assessed directly in this SEIA, and are covered from a whole-of-project perspective in Chapter 25 of the EIS.

2.1 Determine the level of assessment

In line with guidance note EIA-N05, an assessment was undertaken to determine the appropriate level of socio-economic assessment for the project. This assessment drew on a high-level appraisal of the likely scale and magnitude of any potential impacts at a national, regional and local level.

Overall, there is an expectation that there will be several socioeconomic impacts (both positive and negative), upon multiple groups of people including the local Aboriginal community. Moreover, both La Perouse and Kurnell attract visitors from across Sydney and beyond, and as such, it is assumed that the impacts may be broader than the local area. While impacts may be far-reaching, they are not anticipated to be major in nature, taking into account duration and scale. As such, it was determined that a ‘moderate’ level of assessment was suitable for the project.

The methodology developed aligns with expectations for a moderate level assessment, set out in guidance note EIA-N05.

2.2 Study area definition

The study area(s) for a SEIA identifies the potential area of influence for social and economic impacts as a result of a project. The extent of a SEIA study area is dependent on a range of factors, including the likely scope of potential impacts, and the context within and around the project area.

For this SEIA, the area of social and economic influence has been defined based on several factors, including:

- A review of other technical assessments to understand their distance parameters and likely impact sphere. These predominantly consider a study area of one-kilometre from the project area.
- The nature and scale of the project, and the scope of the potential direct and indirect socioeconomic impacts throughout its lifecycle (construction and operation). It is noted that the project is likely to attract users from the wider community, as well as residents in the immediate vicinity.
- The location and characteristics of the project site and nearby land uses – characterised by the project’s location close to recreational and open space uses and existing industrial waterfront uses, alongside some local neighbourhood and residential communities.
- Key built and natural features, including the local road network, and local areas of recreation and open space. It is noted that the land surrounding the project is designated National Park and plays a key biodiversity, recreational, landscape and cultural role.
- Statistical boundaries (as defined by the Census Statistical Area 2 (SA2) boundaries) to enable identification of key statistics.³

2.2.1 SEIA study area

Based on these considerations, a **SEIA study area** has been identified. This represents those areas and communities considered to be most highly impacted by socio-economic impacts as a result of the project. It is defined by the communities

³ Statistical Areas Level 2 (SA2) are medium-sized general-purpose areas defined by the Australian Bureau of Statistics (ABS). Their purpose is to represent a community that interacts together socially and economically.

intersecting with the project, identified at ABS Statistical Area Level 2 (SA2). This incorporates two communities, as shown in Figure 4, including:

- 118021350: Malabar - La Perouse - Chifley (referred to as MLPC)
- 128011604: Cronulla – Kurnell – Bundeena (referred to as CKB).

These communities cover a large area and extend more than five-kilometres from the project area.

It is noted that the other technical assessments accompanying the EIS predominantly assess impacts within a radius of one-kilometre from the project area. It is considered that the SEIA study area needs to cover a broader area to capture the many communities which may interact with the project. The project area and its immediate surround, particularly in La Perouse, represents a key local attraction for recreation and outdoor activities. The project too will attract users from beyond the direct vicinity of the project.

It is considered that communities within the SEIA study area will experience some variation in impacts. In particular, those areas in the immediate vicinity of the project may experience a higher magnitude of impacts. As such, in some instances, consideration has been given to those communities within and adjacent to the project area (consistent with the other technical assessment for the EIS) – these communities are referred to in this SEIA as **La Perouse** and **Kurnell**.

2.2.2 Other impact areas

Socio-economic impacts may affect different areas at different times. While many socio-economic impacts would predominantly occur within the SEIA study area, there is potential for flow-on impacts in the surrounding area as a result of construction and / or operation. For the purpose of this SEIA, consideration has also been made of the broader scale of impact the project may have, where relevant to the impacts assessed, based on the factors outlined. These include:

- **Greater Sydney** – this represents the city within which the project sits. It is likely to be impacted particularly due to the cultural and tourism value associated with enhanced connectivity between the two areas.
- **State** – covering the NSW State area, related to the project's role within the State-wide insert in particular the high level cultural and heritage value and significance for Aboriginal and European history in the State of NSW.
- **National** – the project holds cultural and heritage significance for Australia.

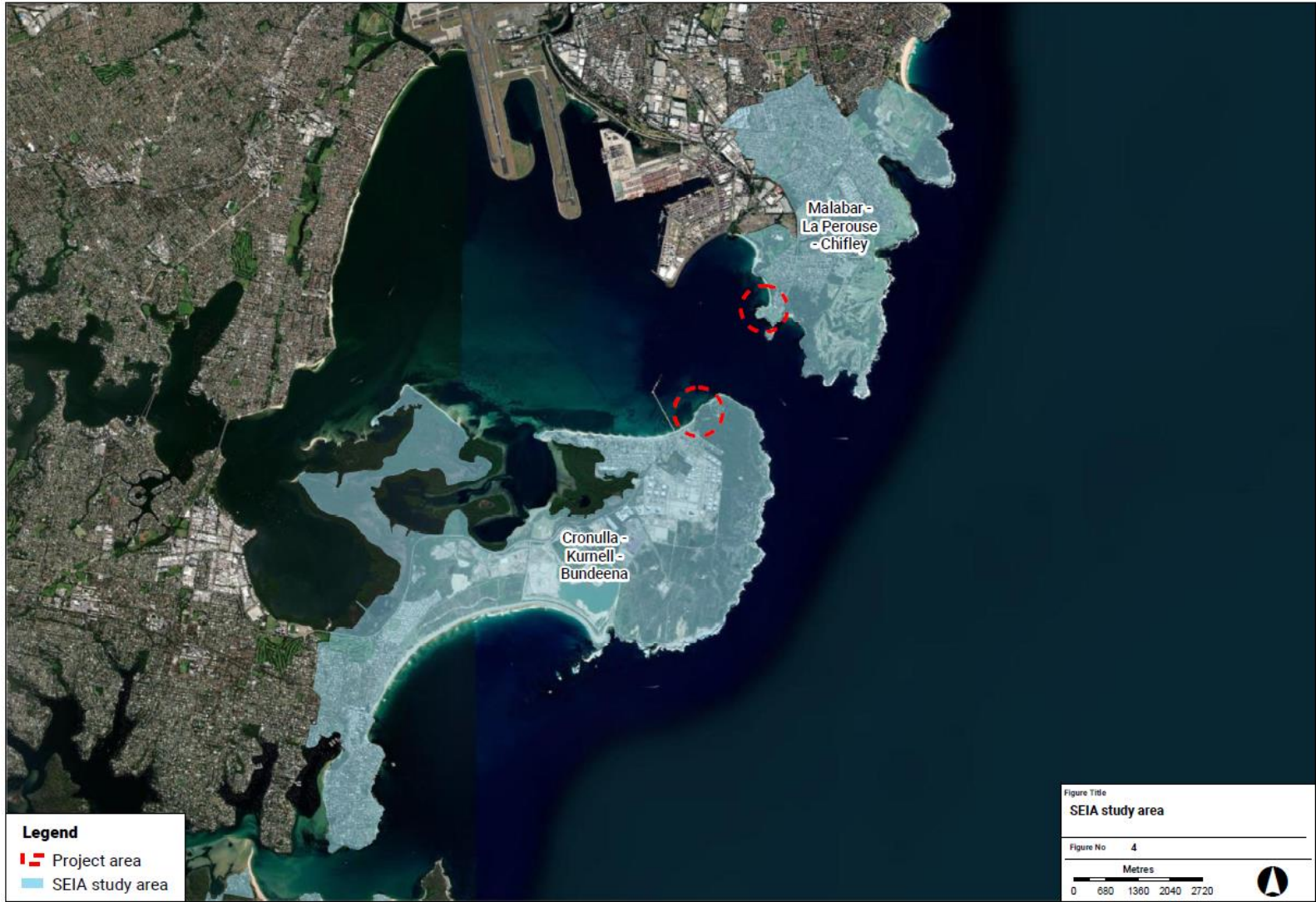


Figure 4: SEIA study area

2.3 Engage the community

The SEIA draws upon the findings of the community and stakeholder engagement carried out to date as documented in the Chapter 6 of the EIS. In early 2020, a Communications and Community Engagement Management Plan was prepared to guide the consultation approach for all stages of the project. The objectives of the Community Engagement Management Plan are to:

- Identify effective methods to inform the community about the project
- Facilitate engagement with the community, including allowing meaningful contributions throughout the planning, design and construction phases of the project
- Obtain social license and long-term support from the community to build and operate the wharves
- Promote the importance of the reinstatement of the wharves
- Understand and acknowledge the cultural significance of the land to Aboriginal people.

Table 2 summarises the consultation that has been undertaken to date as part of the project.

Table 2: consultation activities undertaken to date

Method for consultation	Description of activity
Transport for NSW Webpage	Project webpage is continually updated with key milestones for the project.
Project email address	A project email address has been available throughout the project for anyone to email and ask questions, provide feedback and get further information.
Project phone number	A toll-free number has been available throughout the project for anyone to call and ask questions, provide feedback and get further information.
Local media - Newspaper advertisements and articles	Advertisements about the project and the information sessions were placed over a period of two weeks in the Koori News, The Leader and The Southern Courier.
Hard copy Project Update in July 2020 and February 2021	Distributed to the letterboxes of more than 6000 letterboxes within two kilometres of the proposed wharves and emailed to list of community and other stakeholders who expressed interest through the website and previous consultation.
Transport for NSW 'Your Say' Kamay Ferry Wharves project website	This interactive site offers the opportunity for community and other stakeholders to get information and to give their views through: <ul style="list-style-type: none"> • Stories • A survey • Questions and answers about the project • Input to potential impacts.
Public information sessions via Zoom in	Due to COVID-19 restrictions, three public information sessions were held on the Zoom video conferencing platform in August 2020

Method for consultation	Description of activity
August 2020 and in person in February 2021	(10, 11, 13 th). Participation was capped at 20 participants for each session to maximise the opportunity for two-way interaction. The sessions comprised a presentation and questions. A total of 53 people indicated that they wanted to attend the sessions and 36 people attended. In February 2020 four in-person public information sessions were held (two at La Perouse and two at Kurnell).
Meetings with interest groups and government agencies	Meetings with interest groups were held. This included community and other stakeholders who reached out to the project team or responded to offers for meetings from the project team. Meetings with government agencies such as DPIE, DPI Fisheries, NPWS and Councils has been ongoing throughout the project.
Stakeholder outreach/communication	Community groups and individuals were emailed directly with project updates and invitations to join the public information sessions.
Notification about investigations	For investigations impacting the community, notification via a letter box drop to 1,000 properties within the closest proximity to the investigations were administered. All investigations were notified to NPWS, Port Authority of NSW, Sutherland Shire Council, Randwick City Council, DPI Fisheries and LPLALC.
NSW Maritime Facebook page	The page directs people to the Your Say website and reminds the boating community to take care during field investigations.

Specific Aboriginal community consultation has been carried out throughout the project development. The project team also meets with the La Perouse Local Aboriginal Land Council (LPLALC) on a regular basis to continue the discussion that began during the Strategic Business Case (SBC) phase about potential benefits for the Aboriginal community and ways to realise these benefits. Other Aboriginal community groups/stakeholders that have been consulted with include:

- Traditional owners and elders
- Gamay Rangers
- Aboriginal Alliance of Community-Controlled Organisations
- La Perouse Aboriginal Community Alliance
- Empowered Communities
- Tribal Warrior
- Gujaga Foundation
- La Perouse Government Interagency Group
- Indigenous Business Australia (IBA)
- Aboriginal community members and families.

The outputs from the community consultation and stakeholder engagement undertaken have been integrated into the SEIA baseline and impact assessment.

2.4 Describing the socio-economic baseline

Following study area identification, a socioeconomic baseline has been developed for the project, in line with expectations for information and content for a Moderate level of assessment set out in EIA-N05. The socio-economic baseline uses qualitative and quantitative analysis to set out a profile for the SEIA study area across the following factors:

- Policy and planning context to indicate future planning aspiration for the SEIA study area
- Population and demography, including population, age, cultural diversity and need for assistance
- Families and housing, including dwelling characteristics, household composition, tenure and cost
- Socio-economic indicators, including the social economic indicators for areas (SEIFA)
- Employment, business and industry, including employment and unemployment, industry statistics, and local business characteristics
- Travel behaviour, including vehicle ownership, travel to work and key travel patterns
- Social infrastructure, including key services, community facilities and other infrastructure
- Community values, including cultural importance, community cohesion, and key aspirations for the area.

The baseline primarily has relied upon desktop research and quantitative and qualitative information from secondary sources. More specifically, the baseline has drawn on the following activities and sources:

- Review of relevant social and economic strategies and policies, guidelines and plans – to identify relevance and directions for the assessment (see Section 3.1)
- High level review of key strategic planning policies and documents to identify planned future priorities and land uses
- Preparation of a socio-demographic and economic profile through analysis of ABS 2016 Census data, ABS population projects and ABS business data for the SEIA and wider Greater Sydney area
- Identifying travel patterns and behaviours through a review of ABS data, transport infrastructure and services, and travel information
- Analysis of aerial photography and land use data to understand existing land uses the identified study areas
- Review of existing community infrastructure near the project such as education facilities, health and emergency services and recreation uses

- Review of community and stakeholder engagement outcomes summarised in Chapter 6 of the EIS, to identify direct socio-economic impact considerations, and to gain community feedback that addresses concerns, values and needs
- Review of community plans to identify existing community values through indicators such as amenity, sense of place and connections to the land
- Identification of existing Aboriginal community values through a review of engagement outcomes summarised in Chapter 6 of the EIS to identify direct socio-economic impact considerations, and to gain community feedback that addresses concerns, values and needs that are specific to the Aboriginal community.

2.5 Predict and analyse socio-economic impacts

Building on the baseline identified, potential social and economic impacts have been identified associated with the project, having regard to relevant guidance documents. Impacts have been identified under the categories summarised in Table 3, in line with guidance note EIA-N05, and informed by the DPE Social Impact Assessment Guidance.

Both perceived and experienced impacts have been considered as part of the assessment. Similarly, positive and negative impacts are assessed.

Table 3: SEIA categories

Category	Description	Relevant EIA-N05 Sub-category	Relevant DPE guideline social factor addressed
Property and land use impacts	Potential impacts to properties, businesses, recreational users and land and water users.	<ul style="list-style-type: none"> • Impacts on property • Impacts of property acquisition • Impacts on property amenity (access). 	<ul style="list-style-type: none"> • Personal and property rights.
Socio-demographic impacts	Impacts to demographic profile, livelihood and housing impacts). This also include impacts to Aboriginal community.	<ul style="list-style-type: none"> • Changes to population and demography. 	<ul style="list-style-type: none"> • Community • Way of life.
Economic impacts	Employment impacts, impacts to businesses (access, revenue, productivity etc), and broader economic and industry impacts. This includes impacts to commercial water-based activities also.	<ul style="list-style-type: none"> • Employment and income • Value add • Impact on local business • Regional industries. 	<ul style="list-style-type: none"> • Community • Way of life.
Amenity impacts	Noise and vibration, air quality, flooding, and visual impacts.	<ul style="list-style-type: none"> • Local amenity. 	<ul style="list-style-type: none"> • Way of life • Surroundings • Health and wellbeing.

Category	Description	Relevant EIA-N05 Sub-category	Relevant DPE guideline social factor addressed
Access and connectivity impacts	Impacts to movement and travel patterns and impacts to liveability of surrounding communities.	<ul style="list-style-type: none"> Access and connectivity <ul style="list-style-type: none"> walking and cycling networks public transport facilities roads parking changes to adjacent road conditions (i.e. clearways) heavy vehicle routes). 	<ul style="list-style-type: none"> Way of life Access to infrastructure, services and facilities.
Social and shared infrastructure impacts	Access to and use of social infrastructure and other essential community infrastructure e.g. utilities. This includes impacts to public space and open space, and recreational uses and impacts to activities supporting mental and physical health and wellbeing.	<ul style="list-style-type: none"> Direct and indirect impacts on community services, facilities and networks. 	<ul style="list-style-type: none"> Access to infrastructure, services and facilities Health and wellbeing.
Community values impacts	<p>Impacts to community values including community cohesion, culture, fears and aspirations for different groups.</p> <p>Impacts to the extent to which communities can have a say in decisions associated with the project and their wider lives.</p>	<ul style="list-style-type: none"> Community values <ul style="list-style-type: none"> local character and identity community cohesion community safety environmental values sense of place heritage. 	<ul style="list-style-type: none"> Community Way of life Culture Decision-making processes Fears and aspirations.

The potential impacts of construction and operation of the project under these categories has been informed by a number of sources, including:

- Project details and final site layout as described in the EIS (Chapter 5)
- Construction program and timing as described in the EIS (Chapter 5)
- The socio-economic baseline summarised in Section 3 of this report
- Experience from other similar projects, as summarised in Section 4 of this report

- Stakeholder and community consultation carried out in relation to the project (includes Aboriginal community consultation) (Chapter 6 and Appendix D of the EIS)
- Other technical studies of the EIS, including:
 - Landside Traffic and Transport Assessment Report (Appendix K of the EIS)
 - Landscape Character and Visual Impact Assessment Report (Appendix M of the EIS)
 - Surface Noise and Vibration Impact Assessment Report (Appendix O of the EIS)
 - Underwater Noise Assessment (Appendix P of the EIS)
 - Navigational Safety Assessment (Appendix L of the EIS)
 - Air quality Assessment Report (Appendix V of the EIS)
 - Surface Water Assessment Report (Appendix S of the EIS)
 - Marine Biodiversity Assessment Report (Appendix H of the EIS)
 - Biodiversity Development Assessment Report (Appendix I of the EIS).

The results of this assessment are summarised in Sections 5 and 6 of this report.

2.6 Evaluate socio-economic impact

In line with EIS-N05 guidelines, each of the identified potential negative socio-economic impacts has been assigned a rating with regard to its potential significance, having regard to the sensitivity of those affected, and the magnitude of the proposed works. Only negative impacts are assigned a level of significance. Positive impacts are identified, but no significance is attributed. This is in line with the EIS-N05 guideline. It has not been considered appropriate to provide a level of significance for the impacts to Aboriginal communities also – and therefore these are reported without being assigned a level of significance.

The socio-economic impact grading matrix set out in the EIS-N05 guideline has been used to inform the evaluation of negative socio-economic impacts for the project. This matrix considers likelihood of impacts (as shown in Table 4) against the potential magnitude (as shown in Table 5) to give an overall rating, as summarised in Table 6. This matrix was chosen, over that within the DPE Social Impact Assessment Guideline as it has been developed specifically for projects led by Transport for NSW with a transport focus. It is also considered to better reflect the potential level of impacts of the project and provides consistency with the technical assessments undertaken for other topic areas.

Further detail is provided in the following sections.

2.6.1 Sensitivity

Sensitivity refers to vulnerability of impacted receivers to change and their capacity to adapt. Receivers may include environmental characteristics, communities, businesses, business clusters, social infrastructure and residences.

Table 4 summarises the definition of the four tiers of sensitivity. Qualities of sensitivity considered have included:

- Existing socio-demographic composition
- Current economic activity and industry context
- Existing surrounding conditions, including amenity (noise levels, visual quality, air quality etc.), property and land use, and connectivity and access.
- Community values
- Level of community concern and activity.

Table 4: Levels of sensitivity

Sensitivity	Example
Negligible	No vulnerability and able to absorb or adapt to change.
Low	Minimal areas of vulnerability and a high ability to absorb or adapt to change.
Moderate	A number of vulnerabilities but retains some ability to absorb or adapt to change.
High	Multiple vulnerabilities and/or very little capacity to absorb or adapt to change.

2.6.2 Magnitude

Magnitude refers to the scale, duration, intensity and scope of the project including how it would be constructed and operated. Table 5 summarises the definition of the four tiers of magnitude.

Qualities of magnitude considered have included:

- Spatial extent (the geographical area affected which may be local, suburb, regional, state, national or to community groups)
- Duration (short, medium or long-term, hours of works, frequency, reversibility)
- Physical scale and intensity (the types of works, operational uses and built form).

Table 5: Levels of magnitude

Magnitude	Example
Negligible	There would be no discernible positive or negative changes caused by the impact. Change from the baseline would remain within the range commonly experienced by receivers.
Low	There would be a discernible change from baseline conditions. The impact would be to a small proportion of receivers over a limited geographical area and mainly within the vicinity of the project. The impact may be short-term, or some impacts may extend over the life of the project.
Moderate	There would be a clearly noticeable difference from baseline conditions. The impact would be to a small to large proportion of receivers and may be over an area beyond the vicinity of the project. The duration of the impact may be short to medium-term or some impacts may extend over the life of the project.
High	There would be a change that would dominate over the existing baseline conditions. The change would be widespread or persist over many years or remain permanently.

2.6.3 Assessing levels of significance

The combination of sensitivity and magnitude has been used to determine the level of significance of the impact.

The matrix provided in Table 6 determines the significance of the potential negative impacts through the combination of sensitivity and magnitude.

Table 6: Levels of significance

Sensitivity	Magnitude				
		High	Moderate	Low	Negligible
	High	High	High-Moderate	Moderate	Negligible
	Moderate	High-Moderate	Moderate	Moderate-low	Negligible
	Low	Moderate	Moderate-low	Low	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

The results of this assessment are summarised in Section 7 of this SEIA.

2.7 Mitigation and residual impacts

The next step in the methodology was to consider opportunities to reduce negative impacts and enhance positive impacts.

In line with EIA-N05 and DPE's Social Impact Assessment Guideline, for all material impacts, mitigation, enhancement and/or management actions have been considered to reduce or manage the significance of the impact (Section 8). Where possible, identification of enhancement, mitigation and management measures has drawn upon strategies successfully implemented on other similar projects.

In developing mitigation and management measures, regard has been had to the following considerations (drawing on both guidance documents):

- The potential for the project to influence the impact as the sole or primary cause, and therefore the scale of measure(s) required
- The potential for targeting the cause of the impact, wherever possible, rather than managing the outcome, drawing on engagement outcomes
- The acceptability of the proposed measure(s) to those expected to be affected by the impact
- Any potential negative socio-economic impacts that might arise as a result of the proposed measure(s)
- The requirement for action by external parties to respond to proposed measure(s)
- The deliverability of proposed measure(s)
- Cost-effectiveness of the proposed measure(s).

For each mitigation and management measure, consideration has also been given to how impacts can be adaptively monitored and managed over time.

The project has then been re-evaluated taking into account the proposed mitigation and management measures, to describe the expected residual impact of the project (Section 9).

2.8 Limitations and assumptions

This SEIA has been based on available information at the time of writing and has been designed to respond to the SEARs specific to the project. There are a number of assumptions made which should be noted, including:

- Background and baseline information is based on desktop research and engagement undertaken (and summarised in Chapter 6 of the EIS).
- The impact assessment in relation to technical topic areas is based on information provided in the specialist technical impact assessments completed for the project. No independent verification of the results of these reports has been undertaken as part of the SEIA.
- No cumulative impact assessment is provided as part of this SEIA. Cumulative impacts are addressed as part of the EIS in Chapter 25.
- The impact assessment does not provide any primary quantitative analysis of economic impacts. In line with guidance note EIA-N05 and the DPE Social Impact Assessment guideline, the economic assessment focusses on consideration of socio-economic factors such as employment, industry and business impacts of the project.

The COVID-19 pandemic has affected how people live, work and move around. The 2016 ABS data used to inform the socio-economic baseline within this socio-economic impact assessment may differ because of these changes. At the time of writing ABS was exploring administrative and transactions data to inform official social and economic statistics in response to COVID-19. This information was not available at the time of writing this assessment.

3 Social and economic baseline

To inform the SEIA, the following sections detail the existing socioeconomic environment and baseline conditions for the assessment of the project.

3.1 Policy and planning context

The SEIA has drawn on state legislation and state, regional and local strategy and policy to identify the relevant legislative and policy context to inform the SEIA.

This project is recognised in Stage 1 of the Kamay Botany Bay National Park Kurnell Master Plan (DPIE, 2019), which provides an update to the largely implemented 2008 Master Plan for the Kurnell Precinct – and highlights the ‘meeting place’ character of the Kurnell site. The project also supports the Kamay 2020 Project, which commemorates the 250 years since the encounter between Aboriginal Australians and the crew of the Endeavour. The Kamay 2020 Project has been informed by the Kamay Botany Bay National Park Kurnell: Master Plan and Plan of Management to deliver improved visitor amenity and access, provide new experiences and acknowledge the diversity of stories associated with place. These project specific policy documents provide a useful basis from which to understand the aspirations associated with the project, and the community values and cultural identity they contribute to.

There are also a number of relevant policies which relate to the Aboriginal community, and cultural values. Given the important cultural connection of local Aboriginal communities to the SEIA study area, these also informed the impacts to be considered. These include Transport for NSW’s Reconciliation Action Plan, which sets out the commitment of all NSW transport projects to work towards reconciliation for Aboriginal and Torres Strait Islander peoples, as well as the Aboriginal Tourism Action Plan 2017-2020, which aims to improve the range of Aboriginal cultural tourism within NSW.

Additional policy of relevance to this SEIA is summarised in Table 7. This centres on documents published in the last five years. A more detailed summary of the legislative and policy position in relation to the project is provided in Chapter 3 of the EIS.

Table 7: Summary of relevant policy

Document name	Description	Relevance to SEIA
State		
Our Greater Sydney 2056, Eastern City District Plan (Greater Sydney Commission, 2018)	This plan is the 20-year strategy for economic and social growth in the Eastern City. It sets out a vision for the District to become more innovative and globally competitive, carving out a greater portion of knowledge-intensive jobs. The plan specifically references the Eastern Harbour City	The La Perouse area falls within the Eastern City District. These themes help provide an understanding of the ambitions and aspirations for the Greater Sydney Region, providing an indication of key priorities for the area and its community. They help to inform what

Document name	Description	Relevance to SEIA
	and plans to improve connectivity in this area.	factors to consider in the SEIA for the project.
Our Greater Sydney 2056, Southern District Plan (Greater Sydney Commission, 2018)	This plan is the 20-year strategy for economic and social growth in the Southern Region. It sets out a vision for the District to have quicker and easier access to a wider range of jobs, housing types and activities. Actions to achieve this vision include sustaining vibrant public places, walking and cycling, and cultural, artistic and tourism assets.	The Kurnell area falls within the Eastern City District. These themes help provide an understanding of the ambitions and aspirations for the Greater Sydney Region, providing an indication of key priorities for the area and its community. They help to inform what factors to consider in the SEIA for the project.
Local Government		
Randwick City Plan 2017 (Randwick City Council, 2017)	The plan outlines a framework for land use planning and decision making over the next 20 years. There are 6 themes within the report: Responsible management, A sense of community, places for people, a prospering city, moving around and looking after our environment. The Plan seeks to deliver a sense of community, which outlines our aim to create a sense of inclusiveness, wellbeing and involvement. Further, it seeks to achieve places for people, which describes how the natural and built environment can enhance the way people experience Randwick City.	The site falls within Randwick City and Sutherland Shire LGAs. These documents provide an overview of the current and future characteristics of the project sites, and the broader community aspirations and needs. They are therefore important in developing a baseline to understand what the community particularly values within the SEIA study area.
Randwick City Council Draft Local Strategic Planning Statement (LSPS) (Randwick City Council, 2020)	This LSPS has a range of priorities to improve the liveability of Randwick. It sets out the community's vision for where housing, jobs, infrastructure and open space should be located. There are 4 city planning priorities, these are: Liveability, Productivity, Sustainability and, Infrastructure and Collaboration. The project area is identified as an Iconic Open Space and Recreation + Tourism Hub.	
Sutherland Shire Local Environmental Plan (NSW Government, 2015)	This LEP outlines a framework for land use planning and decision making over the next 20 years. Key aims of the plan include: <ul style="list-style-type: none"> achieving an appropriate balance between development and management of the environment 	

Document name	Description	Relevance to SEIA
	<ul style="list-style-type: none"> protecting and enhance the amenity of residents, workers and visitors protect and enhance the natural environment and scenic quality conserve, protect and enhance the environmental and cultural heritage of Sutherland Shire, (h) to provide leisure and recreation opportunities to suit the needs of the changing population. 	
Sutherland Shire Council Draft Local Strategic Planning Statement (LSPS) (Sutherland Shire, 2019)	<p>This LSPS sets out the vision and planning principles on land use decisions in Sutherland Shire for the next 20 years. It identifies priorities for infrastructure, housing, town centres, employment transport recreation and environment land use outcomes.</p> <p>The LSPS highlights Kurnell as a prime visitation area for Sutherland.</p>	
Sutherland Shire Community Strategic Plan (Sutherland Shire, 2017)	<p>This Plan outlines the community's aspirations and long-term vision for the Sutherland Shire. There are 6 goals identified in this plan, those of relevance include: enhance and protect the beautiful and healthy natural environment, sustain a caring and supportive community, progress a prosperous community for all, and sustain a liveable place where all can continue to enjoy a high quality of life.</p>	
Sutherland Shire Economic Strategy (Sutherland Shire, 2018)	<p>This strategy sets out the economic aspirations for Sutherland Shire. It aims to deliver a connected and safe community that respects people and nature, enjoying active lives in a strong local economy. There are 4 key principles outlined in the strategy, these are: Connected, Informed, Enabling and Responsive.</p> <p>The Economic Strategy for Randwick City is dated from 2009, and therefore not included.</p>	

3.2 Socio-demographic profile

This section presents a demographic analysis of the SEIA study area (comprised of the two SA2 areas Malabar - La Perouse – Chifley (MLPC) and Cronulla - Kurnell – Bundeena (CKB). The Greater Sydney area has been used as a comparison for the data throughout this section. This was chosen rather than NSW as a whole, to ensure rural locations (which have very different characteristics to the SEIA study area) were not included in the comparison.

MLPC and CKB are separated by Botany Bay and in some instances the demographic profile varies significantly between the two. Where the results for each SA2 area are sufficiently different, statistics are reported individually for each.

The rest of this section provides a summary of:

- Demographic profile
- Housing and household composition
- Socio-economic advantage and disadvantage
- Employment, industry and business
- Travel behaviour.

It is noted that the data used is largely drawn from the 2016 ABS census, and as such before the Covid-19 pandemic of 2020. Some of the data analysed in this section may no longer reflect the current situation – noting that the COVID-19 pandemic has affected how people live, work and move around. At the time of writing ABS was exploring administrative and transactions data to inform official social and economic statistics in response to COVID-19. This information was not available at the time of writing this assessment.

3.2.1 Demographic profile

Population and population growth

The SEIA study area had a population of 47,525 in 2016. While relatively substantial, this equates for only a small proportion of the population of Greater Sydney (0.1%). The SEIA study area extends some five to 10-kilometres from the project area, and only a small proportion of the resident population is located within one-kilometre of the project.

The CKB and SEIA study area experienced a decrease in population from the 2011 census, while the MLPC recorded an increase in population higher than the rate for Greater Sydney (Table 8). This indicates that the MLPC is growing at a fast pace. This is likely due to the large amount of R2 Low Density Residential and R3 Medium Density Residential land within the MLPC area, while the CKB has a large amount of land zoned E4 Environmental Living and lower-density residential environments.

Table 8: Population Growth

Population	MLPC	CKB	SEIA study area	Greater Sydney
2011 Population	21,110	29,188	50,298	4,823,991
2016 Population	24,036	23,487	49,523	4,391,674
Population Change	14%	-20%	-1.6%	9.8%

Population projections for 2041 are not available at the SA2 level, however, Randwick LGA (home to MLPC) is expected grow by 20% by 2041, with Sutherland Shire LGA (home to CKB) forecast to increase by 18% by 2041. These projections are significantly lower than the Greater Sydney growth rate of 52%. This indicates that the SEIA study area is not expected to experience significant residential growth or development to 2041.

Gender

Gender information can provide insight to the composition of a community, allowing for consideration of the different roles, values, and situations of men and women. Gender ratios can impact on society, demography, and the economy. In 2016, gender was split fairly evenly and remained relatively consistent across different spatial scales (including State and National), and across the SEIA study area. In the MLPC, the population was comprised of 52.2% males and 47.8% females. In the CKB, the population was comprised of 49.4% males and 50.6% females. This suggests that there are no significant priority communities associated with gender in the SEIA study area. This suggests that there are no significant priority communities associated with gender in the SEIA study area.

Age distribution

Data on the age distribution of a population can provide an indication of potential need, values, and vulnerability of communities.

Within the SEIA study area, the median age of people was 40 years in 2016, slightly older than the 36 years for Greater Sydney. Children aged 0 - 14 years made up approximately 15% of the population, compared to 19% in Greater Sydney, this can be seen below in Figure 5. People aged 65 years and over made up 17% of the population in the SEIA study area, compared to 14% across Greater Sydney. This age distribution is relatively consistent across the SEIA study area. This demonstrates a higher than average proportion of older people in the SEIA study area. Those over the age of 65 years are considered to be more vulnerable to health impacts, and older populations may be less adaptable to change.

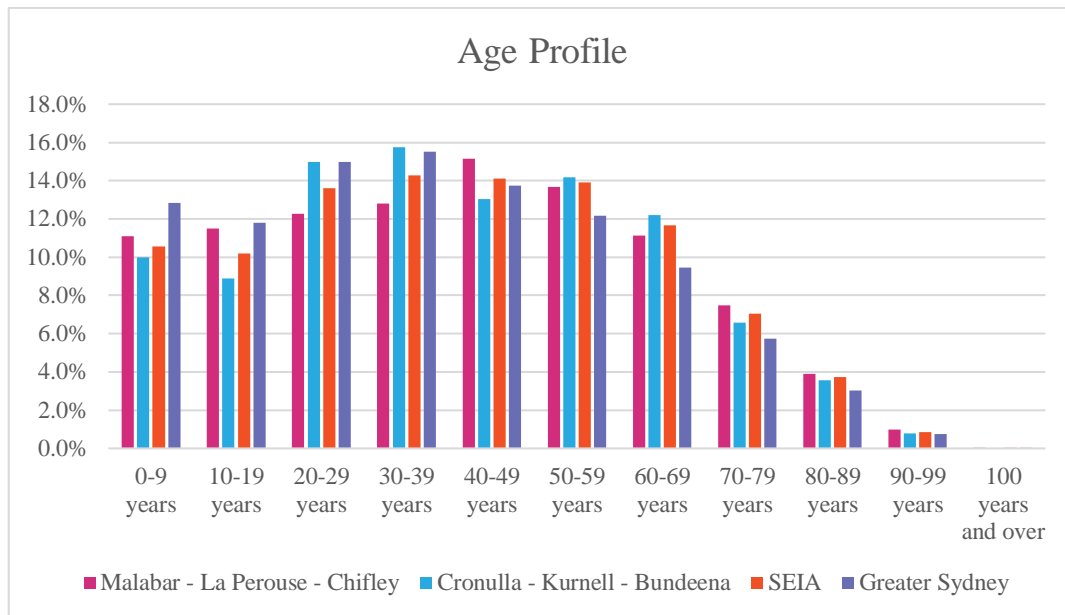


Figure 5: Age Profile (10-year increments)

Aboriginal Population

In 2016, the MLPC, home to La Perouse, was home to a significant population identifying as being Aboriginal and/or Torres Strait Islander (ATSI). This is reflected in Table 9 and was significantly higher than both the CKB and Greater Sydney. This higher concentration of people identifying as ATSI may be due to the cultural significance of the area, and the La Perouse Local Aboriginal Land Council being located within the MLPC. Long Bay which is located within the MLPC is also reported to be a principle healing/ camping place for the local Aboriginal community. This significant population highlights the importance of considering the impacts of the project to the local Aboriginal community and broader Aboriginal and cultural values.

Table 9: Aboriginal and/or Torres Strait Islander Proportions

ATSI proportions	MLPC	CKB	SEIA study area	Greater Sydney
Percentage of overall population	5%	1.3%	3.1%	1.5%
Number of residents	1,190	304	1,483	70,138

Place of birth and ancestry

People who have just moved into an area may be more vulnerable as they may not be settled or have an established support network or sense of community. However, the SEIA is home to more people who were born in Australia than the wider Greater Sydney Region. Figure 6 suggests a lower than average migrant population, and no substantial priority communities associated with ancestry.

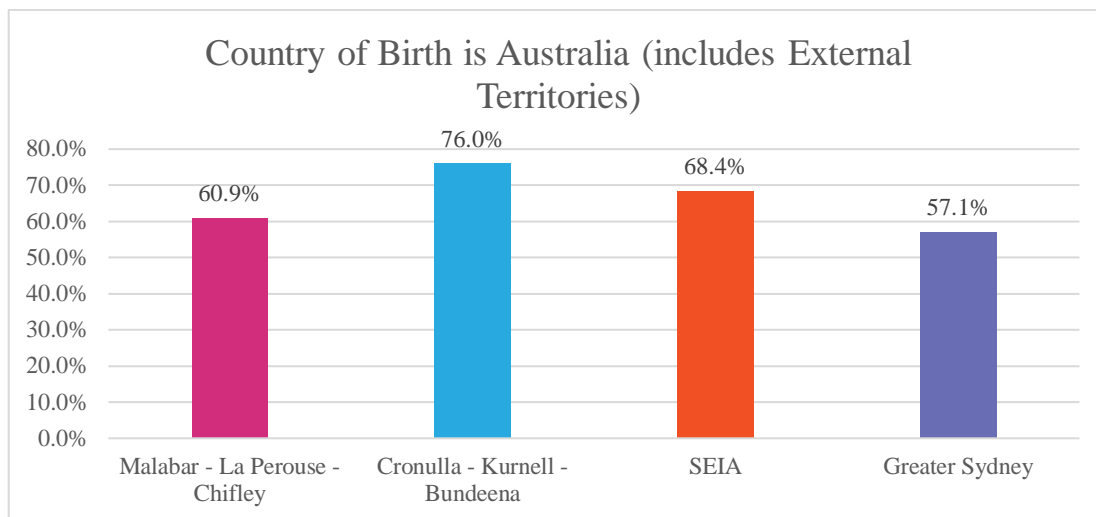


Figure 6: Country of Birth

For those that were born overseas, 2,733 people (5.8% of the population) had arrived between 2006 and 2016 (i.e. within 10 years prior to the census). As such, there is a small recent migrant community within the SEIA study area that could be considered to be more vulnerable to the impacts of the project.

Languages spoken

Consistent with ancestry results, only 24.6% of the MLPC and 8.8% of the CKB population indicated that they spoke another language at home. Combined, this is significantly lower than the 35.8% of Greater Sydney's population suggesting a lower than average diversity in the SEIA study area. Consistent with the amount of other languages spoken, English proficiency is better in the SEIA study area when compared to Greater Sydney and can be seen in Figure 7. This indicates that there are few substantial communities where language will affect their potential impact from the project.

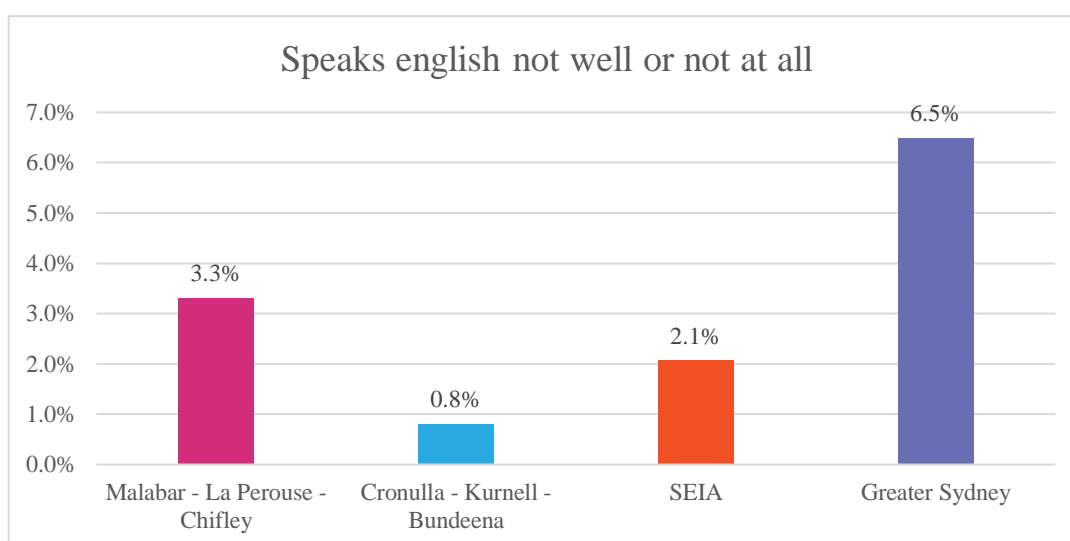


Figure 7: English Proficiency

Need for assistance

Disability can limit mobility, employment opportunities and consequently access to financial resources. The ABS ‘need for assistance’ dataset provides an indication of the disability status of people in the SEIA study area by identifying the proportion of people who need help with core activities (self-care, mobility and communication) due to a disability, long-term illness, or advanced age. While the results of the ABS Survey of Disability, Ageing and Carers (SDAC) provides a more comprehensive measure of disability (i.e. communication, mobility, etc), it is reported at a State level and does not provide data to a level relevant to this study.

The proportion of the SEIA study area population which has a need for assistance with core activities is relatively consistent with the average for Greater Sydney, as shown in Table 10. The MLPC has the most significant proportion of people with a need for assistance. Due to the high proportion of “Not stated” responses in the MLPC, there could be an even higher proportion of the population which requires assistance with core activities.

Table 10: Need for Assistance

Need for Assistance	MLPC	CKB	SEIA study area	Greater Sydney
Has need for assistance with core activities	5.2%	3.1%	4.2%	4.9%
Does not have need for assistance with core activities	80.8%	89.1%	84.9%	88.7%
Not stated	14.1%	7.8%	11.0%	6.4%

Priority communities

Overall, there may be some localised population groups that may be more vulnerable to the impacts of the project, particularly associated with: a higher than average number of over 65 year olds; higher than average proportion of people in need of assistance, in MLPC in particular; and some members of the population who are recent migrants, and/or unable to speak English. However, overall, the SEIA study area is not considered to contain substantial numbers of such populations, as the overall proportions remain small, and typically lower than average for Sydney.

3.2.2 Housing and household composition

Household composition

The average household size for the SEIA study area is relatively consistent, but slightly lower than Greater Sydney. This is consistent with the family household composition within the SEIA study area, which shows a greater number of lone person households in the MLPC and CKB which is reflected in the Table 11. This indicates a smaller number of families living in the SEIA study area – and therefore suggests there are no substantial communities that may be particularly vulnerable to project impacts due to their household composition.

Table 11: Household type and size

Household type	MLPC	CKB	SEIA study area	Greater Sydney
Average household size	2.7	2.3	-	2.8
Lone person household	21.6%	25.7%	23.9%	18.9%
Family households	63.4%	53.2%	57.6%	64.3%

Dwelling type and occupancy

There are a total of 20,227 private dwellings within the SEIA study area, split across 8,739 private dwellings in MLPC, and 11,496 in CKB. As noted previously, the number of dwellings within close proximity to the project area is significantly lower. There are some residential communities within proximity to the project area, and within one-kilometre of the project. At La Perouse, the nearest residential property is approximately 60 meters from the project area, and Kurnell it is 15 meters away.

The dwelling structure varies greatly between SA2s, as shown in Table 12. The MLPC has the highest proportion of semi-detached dwellings and has a reasonable number of separate houses. These proportions are significantly different to the CKB which is comprised of more flats or apartments. This suggests a higher density in residential areas within CKB, compared to MLPC and aligns with household composition which suggested a smaller household size and higher number of lone person households than MLPC and Greater Sydney.

Table 12: Dwelling Structure

Dwelling Structure	MLPC	CKB	SEIA study area	Greater Sydney
Separate house	47.4%	33.5%	39.5%	54.9%
Semi-detached	22.5%	4.8%	12.4%	14.0%
Flat or Apartment	29.5%	60.1%	46.9%	29.8%

Household tenure

Of all dwellings located within the SEIA study area, household tenure was a fairly even split and relatively consistent with Greater Sydney, this is reflected in Figure 8.

However, there is significant variation associated with the proportion of public and community housing across the SEIA study areas. MLPC has a significantly higher than average proportion of public housing (11.8% of all rental) and community housing (0.8% of all rentals). In CKB, this is much lower with public housing at 0.7% of all rentals and community housing at 0.1%. A significantly higher proportion of public and community housing can indicate the presence of greater disadvantage within this area, this aligns with the analysis of the Socio-Economic Index for Areas (SEIFA) in Section 3.2.3 which shows higher levels of disadvantage in MLPC around La Perouse.

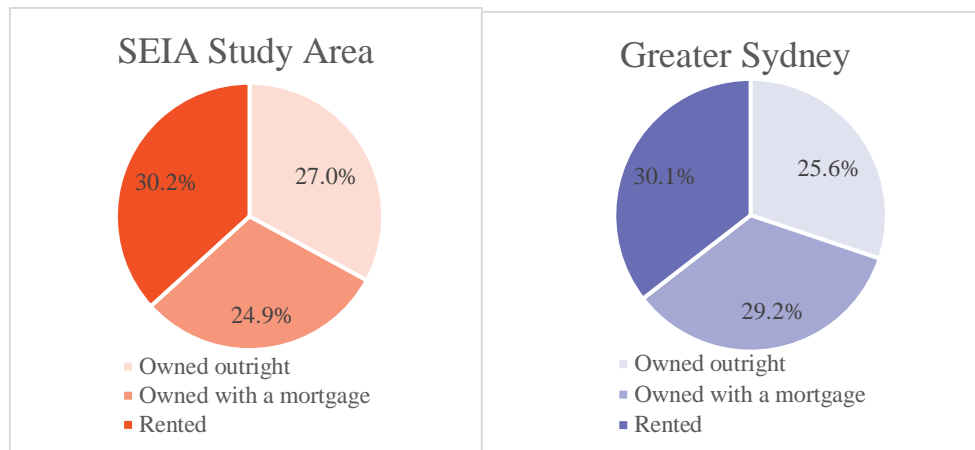


Figure 8: Household tenure

Income and housing affordability

The SEIA study area has a weekly household income of around \$1,800, which is relatively consistent with the Greater Sydney average as shown in Table 13. While measuring housing affordability is complex and is influenced by a range of variables including a household's financial situation, tenure type, and overall demand and supply in the housing market, a simple measure is to consider the ratio of housing costs to gross household income. A lower income household that spends 30% or more of their gross income on housing costs can be considered to be experiencing housing stress (Australian Bureau of Statistics, 2019).

As seen in Table 13, the proportion of median weekly income spent on rent is slightly lower in the SEIA study area than Greater Sydney, this indicates that the population is spending less of their money on rent. The proportion of income spent on a mortgage is similar between the CKB and Greater Sydney however the MLPC has significantly higher mortgage costs. The MLPC mortgage price may be significantly higher than the CKB due to the larger proportion of separate houses within the area.

Based on this, it could be argued that residents in the SEIA study area have typically higher than average disposable income and therefore housing stress is not considered to be an issue across the SEIA study area. There may be some communities which do experience housing stress issues – in particular home owners in MLPC, where mortgage payments equate to almost 34% of household incomes – however, as noted previously, MLPC has a higher than average proportion of social and affordable housing, therefore home ownership is lower.

Table 13: Median weekly income, monthly mortgage repayments and weekly rent

Median weekly income, mortgage repayments and rent	MLPC	CKB	Greater Sydney
Median monthly mortgage repayments	\$2,600.00	\$2,260.00	\$2,167.00
Median weekly rent	\$410.00	\$450.00	\$440.00
Median weekly household income	\$1,767.00	\$1,822.00	\$1,750.00
Mortgage proportion of income	33.96%	28.62%	28.58%
Rent proportion of income	23.20%	24.70%	25.14%

3.2.3 Other socio-economic factors

Education

Both SA2s within the SEIA study area have slightly lower proportions of their population enrolled in all types of education institutions when compared to Greater Sydney, this is reflected in Table 14.

Table 14: Educational enrolment

Education enrolment	MLPC	CKB	SEIA study area	Greater Sydney
Preschool, primary or secondary school	14.9%	12.1%	13.5%	16.2%
TAFE or university	6.4%	5.9%	6.1%	8%

Overall, educational attainment for the SEIA study area is considered to be relatively similar to the Greater Sydney averages and is reflected in Table 15. There are no significant outliers which could indicate a disadvantage in learning opportunities or demographic differences between the areas.

Table 15: Highest level of educational attainment

Highest level of educational attainment	MLPC	CKB	SEIA study area	Greater Sydney
Bachelors or postgraduate degree	16.7%	18.8%	17.7%	21.6%
Certificate or diploma	17.5%	26.2%	21.8%	17.4%
High School	29.3%	26.6%	27.9%	29.9%

Socio-economic advantage and disadvantage

The Socio-Economic Indexes for Areas (SEIFA) are indices provided by the ABS that summarise different aspects of the socio-economic conditions of the people living in a given area based on a range of socio-economic data from the census such as income, educational attainment, unemployment and dwellings without motor vehicles. The SEIFA provides a more general measure of socio-economic advantage (indicated by high quintiles) and disadvantage (indicated by low quintiles).

Using the SEIFA Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) at SA2 level, a high advantage is demonstrated within the SEIA study area –which receives a quintile of four (MLPC) or five (CKB) out of five (see Figure 9). Noting that typically, socio-economically disadvantaged communities may be more vulnerable to change and impact, the higher advantage in the SEIA study area suggests that there may not be substantial communities that are vulnerable to the impacts of the project due to their socio-economic context at an SA2 level.

To provide more nuanced assessment, SA1 SEIFA results were also analysed (see Figure 10). This shows a more granular picture, with some clusters of significantly disadvantaged communities within MLPC, and particularly in proximity to the project. This aligns with the observations that this area also has a high proportion of public housing and some housing stress, which may contribute to this pattern.

There is a small Aboriginal Community Housing area within the MLPC which has a SEIFA decile of 1, suggesting significant disadvantage. These communities with high disadvantage may be more vulnerable to the project and the resultant change and impacts.

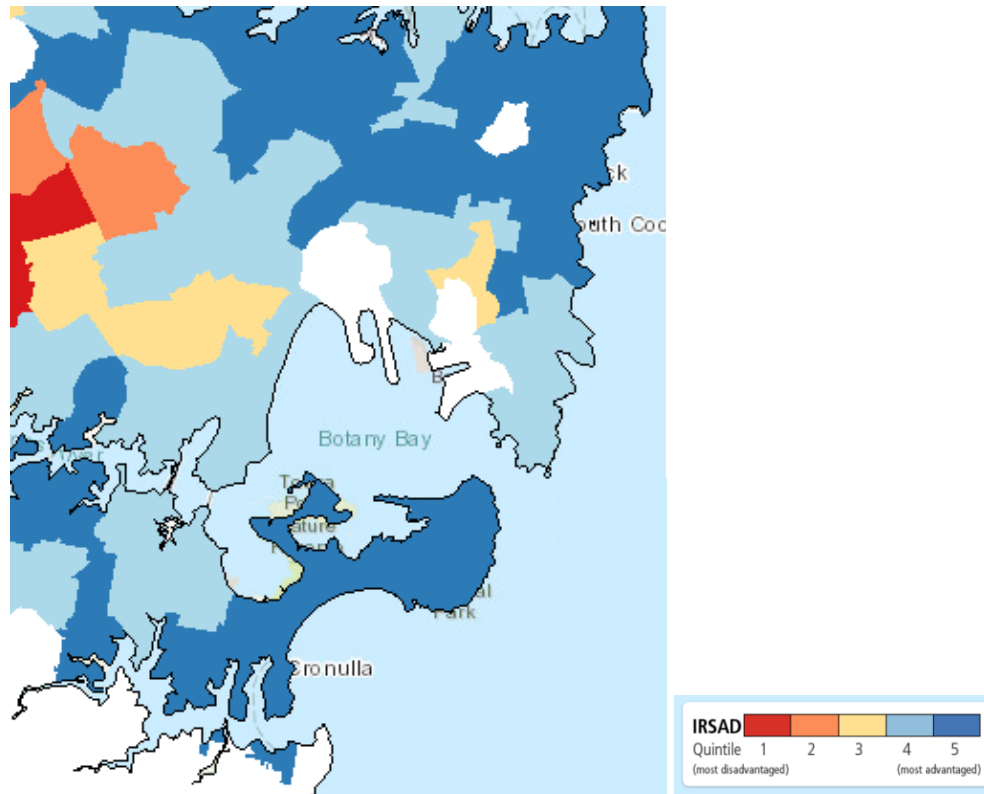


Figure 9: SEIFA results at SA2 level

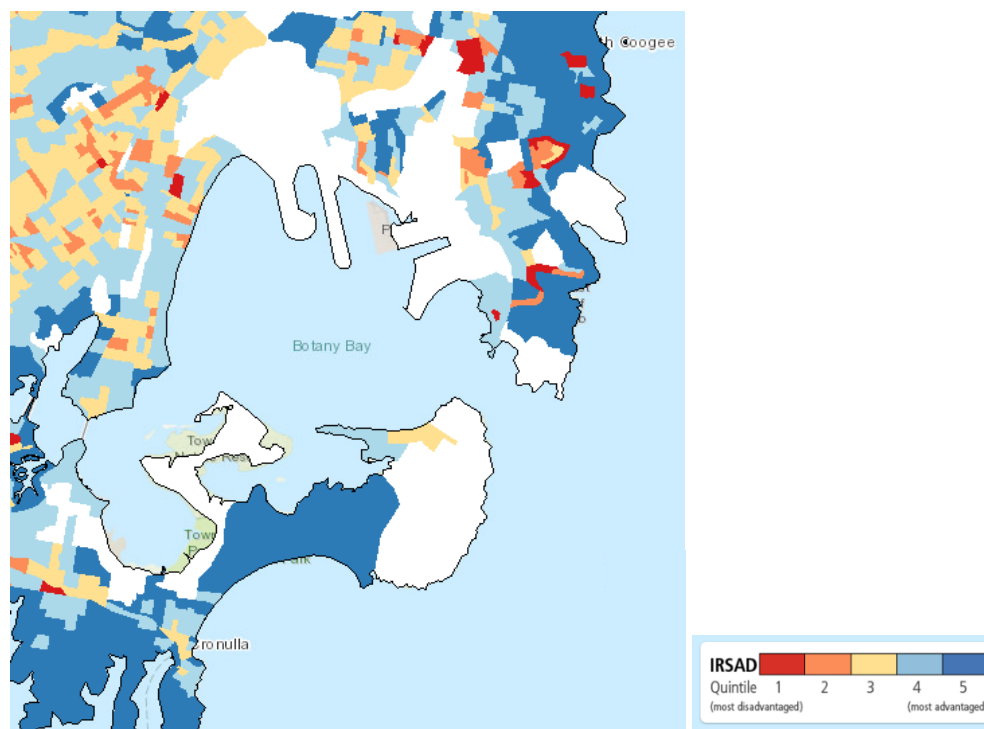


Figure 10: SEIFA results at SA1 level

3.2.4 Employment, industry and business

Employment of residents

Across the SA2s within the SEIA study area there is a total labour force of 24,108 people, equating to 44.6% of the MLPC and 57% of the CKB populations. This results in an average employment rate of approximately 96% within the SEIA study area, relatively consistent with the Greater Sydney area employment rate of 94% (2,272,715 jobs).

In 2016, the key occupation for residents in the SEIA study area was Professional, similar to the Greater Sydney population, as can be seen in Table 16. The majority of occupations align with Greater Sydney, and most differences in percentages can be explained by the slightly different proportion of the population participating in the labour force. This suggests a high proportion of professionals in the SEIA study area, alongside clerical and administrative workers.

Table 16: Top 5 Occupations by Place of Usual Residence

Top 5 Occupations	MLPC	CKB	SEIA study area	Greater Sydney
Professionals	10.3%	13.4%	11.8%	12.4%
Clerical and Administrative Workers	7.2%	8.1%	7.7%	6.9%
Managers	6.4%	8.5%	7.4%	6.5%
Technicians and Trades Workers	4.9%	7.7%	6.3%	5.5%
Community and Personal Service Workers	4.4%	6.5%	5.4%	4.5%

The residents in the SEIA study area work in similar industries to the Greater Sydney population, this can be seen in Table 17. The most significant employers in Health Care and Social Assistance, followed by Construction. The construction employment in CKB is particularly elevated when compared to both MLPC and Greater Sydney. Most other differences in percentages can be explained by the slightly different proportion of the population participating in the labour force.

Table 17: Top 5 Industries by Place of Usual Residence

Top 5 Industries by Place of Usual Residence	MLPC	CKB	SEIA study area	Greater Sydney
Health Care and Social Assistance	5.1%	5.8%	5.5%	5.5%
Construction	3.7%	6.4%	5.1%	3.9%
Education and Training	4.5%	5.0%	4.8%	3.8%
Retail Trade	3.6%	4.5%	4.0%	4.4%
Professional, Scientific and Technical Services	3.2%	4.5%	3.9%	4.6%

Despite generally higher household incomes, it is noted that communities identifying as ATSI in Randwick City Council (where La Perouse is located) tend to have higher unemployment than the Randwick City average. Approximately 10.8% of those identifying as ATSI in Randwick City Council areas are

unemployed, while 5.6% of the total population of Randwick City Council is unemployed (.id, 2016). This is also the case for communities in Sutherland Shire, which has an unemployment rate among those identifying as ATSI of 6.3% compared to a total unemployment rate in Sutherland Shire of 3.5% (.id, 2016).

Business and industry

The SEIA study area provides 11,480 jobs, with 6,435 in MLPC, and 5,051 jobs in CKB.

The jobs located in the SEIA study area are dispersed in significantly different proportions to the occupations for the Greater Sydney workforce, as shown in Table 18. Most notably, there are fewer professional positions and clerical and administrative workers within the SEIA study area when compared to Greater Sydney. There is also 5.5% and 12.8% more community and personal service workers within the MLPC and CKB respectively, when compared with the Greater Sydney proportion.

Table 18: Top 5 Occupations by Place of Work

Top 5 Occupations by Place of Work	MLPC	CKB	SEIA study area	Greater Sydney
Professionals	17.7%	23.8%	20.4%	27.0%
Community and Personal Service Workers	15.1%	22.4%	18.3%	9.6%
Technicians and Trades Workers	15.5%	11.5%	13.7%	10.7%
Managers	14.2%	12.1%	13.2%	14.0%
Clerical and Administrative Workers	12.6%	12.4%	12.5%	15.0%

The SEIA study area is a key hub for tourism and recreation in Greater Sydney Region, with Botany Bay and the historic and cultural significance of Captain Cook's landing place. This is reflected in the industries of employment within the SEIA study area, as shown in Table 19. Accommodation and food services jobs within the MLPC (La Perouse) represent this in particular.

The SEIA study area also has a significantly higher proportion of jobs in the construction industry when compared to Greater Sydney.

Table 19: Top 5 Industries by Place of Work

Top 5 Industries by Place of Work	MLPC	CKB	SEIA study area	Greater Sydney
Accommodation and Food Services	17.6%	6.1%	12.5%	6.8%
Public Administration and Safety	2.6%	23.7%	11.9%	5.7%
Construction	11.0%	10.6%	10.8%	6.9%
Health Care and Social Assistance	6.2%	16.6%	10.7%	11.7%
Retail Trade	9.1%	4.8%	7.3%	9.5%

Local businesses

The SEIA study area is home to a total of 4,706 local businesses, the most significant portion of which is focused on construction activities, and professional, scientific and technical services.

Socio-economic impacts of the project are considered most likely to occur to businesses in close proximity to the project site. As such, detailed analysis has been undertaken of social infrastructure within a one-kilometre radius of the project site

Businesses within one-kilometre of the La Perouse project site include a small range of cafes, the La Perouse museum, New South Wales Golf Club, and many popular beaches. The Boatshed, a popular local restaurant, is located immediately adjacent to the project. Other key businesses in proximity to the project include: Driftwood on the Bay, Danny's Seafood, La Perouse Thai. Daily Dose Café and Restaurant

The La Perouse Local Aboriginal Land Council is also located in close proximity to the site.

Within one-kilometre of the Kurnell project area, there is a range of industrial businesses. In the past, the Caltex Oil Refinery dominated the industrial landscape in Kurnell. The site has since been converted to a fuel import terminal, after nearly 60 years of operating as a refinery. Kurnell is also home to Sydney's desalination plant which has been in operation since 2010. The popular swimming area of Silver Beach also boasts a variety of cafes and retail services, including Endeavour Coffee and Icecream, Esporte Café, and Captain Cook Takeaway. Further afield is the Kurnell Village stores.

Shipping operations

Botany Bay is Sydney's major shipping port and includes bulk liquid/gas and container facilities. Therefore, the SEIA study area contains a number of seagoing ship operations. The Caltex tanker operation at Kurnell is Australia largest fuel import terminal, serviced via three tanker berths. According to the Navigational Safety Assessment (Appendix L of the EIS), in 2019, Caltex received 143 tankers on the fixed wharves and 23 on the buoy moorings.

In addition, just outside the SEIA study area in La Perouse is Port Botany, which has three container terminals, with 12 container vessel berths, as well as oil tanker facilities. It is estimated that an average of nine vessel movements per day are experienced to or from Port Botany or Kurnell terminals. Total vessel numbers are expected to grow by approximately 45%. The deep-water shipping channel which accommodates commercial shipping routes runs through the centre of the Bay between Kurnell and La Perouse, some distance from the coastline.

Commercial boating activities in Botany Bay involve a combination of charter and commercial vessels. As recorded in the Navigational Safety Assessment (Appendix L of the EIS), statistics for the last nine years indicate the number of commercial vessels in Botany Bay and on the Georges River have remained fairly static during that period, at about 350, although charter boating activities have

dropped off over the years with most remaining activities primarily undertaken by Bass and Flinders. It is understood that approximately 80% of activities (commercial and recreational) are conducted well away from the locations of the SEIA study area and the potential ferry operation (Boating Industry Association, 2020).

Specific commercial boating activities include:

- Approximately six ‘hire and drive’ vessel operators that operate predominately in the Georges River
- Two existing Fishing Charter boat operators that launch from the Foreshore boat ramps
- Georges River Cruises conducted by Bass and Flinders.

Botany Bay itself is closed to commercial fishing with the exception of abalone gathering and rock lobster trapping.⁴

Further detail on this is provided in the Navigational Safety Assessment (Appendix L of the EIS).

3.2.5 Local travel behaviour

Access and connectivity

The key transport networks within the SEIA study area include key pedestrian, cycle, public transport and local road networks as well as maritime transport and facilities, scenic and tourist drives.

There is currently no ferry service between La Perouse and Kurnell, limiting visitors to use the road network which takes about 40 to 90 minutes to travel between the two sites. The previous ferry service that operated between the 1890s and about 1974 reduced this travel time to 20 minutes. Other issues affecting travel and access between La Perouse and Kurnell include:

- Poor travel reliability due to variable road traffic conditions
- Poor accessibility for members of the public that do not own a car, including disabled and elderly people
- Poor public transport connectivity, which can result in a travel time of up to two hours between the two sites and between three to five mode changes.

Parking

Car parking is currently provided at both Kurnell and La Perouse close to the project area.

At La Perouse, the parking is often at capacity at peak hours, which results in congestion as vehicles stopping to search for a parking space prevent traffic from circulating along the one-way loop. In Kurnell, car parking is understood to be

⁴ <https://maritimemanagement.transport.nsw.gov.au/documents/botany-bay-georges-river-port-hacking-regional-boating-plan.pdf>

less challenging, with peaks around lunchtime, but sufficient parking to cater for this.

There are no formal existing berths or access points between land and sea for vessels within Kamay Botany Bay National Park at La Perouse or Kurnell. The Regional Boating Plan (Transport for NSW, 2015) identifies relatively few existing formal waterway access points in Botany Bay to service the population. The Plan identifies the need for improved wharf infrastructure in the region to provide access points for passengers on larger vessels as well as an additional emergency access point in Botany Bay.

Pedestrian and cyclist routes

There are a number of formal and informal recreational and walking routes within the SEIA study area.

Recreational cycling and pedestrian activity are both high at La Perouse, particularly on weekends – suggesting they are predominantly recreational rather than used for transport. Cycling rates were at their highest in the morning, this is likely due to participants looking to beat the heat and car peak later in the day.

Walking trips are likely to be visitors to La Perouse that are walking between the landmarks and the food retail/ land uses. Monument Track at Kurnell is also a popular walking location for recreation, and access to key visitor assets.

Public transport network and services

There is a total of five bus stops within one-kilometre of the La Perouse site in MLPC, and six within the one-kilometre radius from Kurnell site within CKB. For both project sites, the closest train station is a 10-kilometre distance away and active transport connections are limited. At La Perouse, buses are frequent with services every 15 minutes on weekends. Opal data indicate that the bus services are well used, with high patronage throughout the year.

At Kurnell, one bus service runs every one-two hours on Saturday and only four services are active on Sunday and public holidays. However, available Opal data suggests that patronage is low throughout the year. This means the demand for public transport and quality of infrastructure is incredibly low in Kurnell.

Vehicle ownership

Vehicle ownership can be an indication of the quality of public transport in the neighbourhood. The SEIA study area, MLPC, CKB and Greater Sydney average motor vehicles per dwelling are all equal at 1.7. Of the occupied dwellings in the study area, a large proportion own more than one motor vehicle, this is reflected in Table 20. This demonstrates a relatively high reliance on car travel, and as such potential for substantial impacts to the community associated with any works on the road network.

Table 20: Number of motor vehicles per occupied dwelling

Number of motor vehicles per occupied dwelling	MLPC	CKB
One	32.8%	40.1%
Two	34.3%	35.7%
Three or more	15.9%	13.6%

Mode of travel to work (residents)

Table 21 summarises the method of travel to work within the SEIA study area. It shows that the population within the SEIA study area use public transport significantly less to travel to work than that of Greater Sydney, which results in a higher vehicle use. The lower public transport use could be due to poor public transport connections or infrastructure linking to their place of work. Again this high reliance on car travel means the community is likely to be vulnerable to any works impacting upon the road network.

Table 21: Method of Travel to Work by Place of Usual Residence

Method of Travel to Work by Place	MLPC	CKB	SEIA study area	Greater Sydney
Public Transport	16.4%	15.9%	16.1%	23.1%
Vehicle	66.9%	64.9%	65.8%	58.6%
Active Transport	3.1%	4.6%	3.9%	4.8%
Other Mode	0.5%	0.4%	0.4%	0.5%
Worked at home or Did not go to work	12.0%	13.4%	12.8%	12.1%
Mode not stated	1.1%	0.9%	1.0%	0.9%

The levels of employment self-containment in the SEIA study area (people living and working within the SEIA study area) is relatively low, which demonstrates a reliance on employment outside of the local community. In 2016, 2,361 residents within the CKB worked within the SA2 (18.43%) and 1,442 residents within the MLPC worked within the SA2 (a self-containment rate of 14.17%). This is shown in Figure 11 and Figure 12. There are 54 residents (0.42%) in the CKB who travel to the MLPC for work.

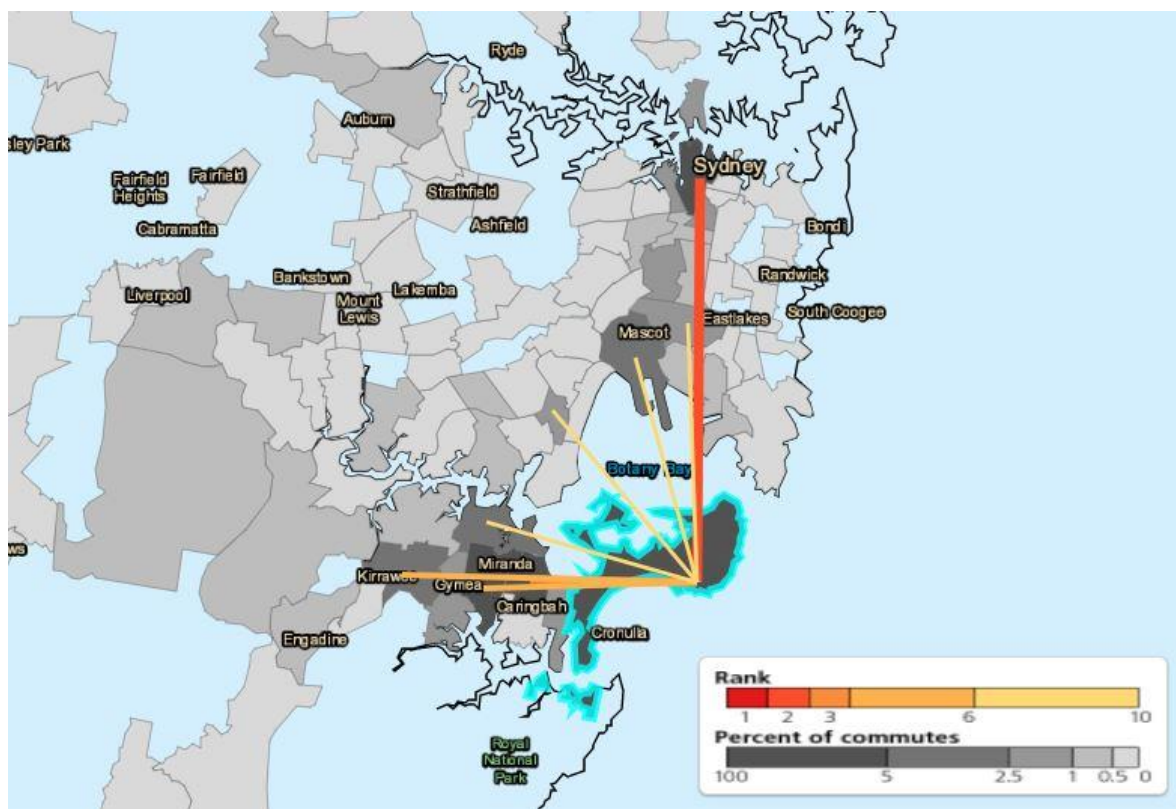


Figure 11: Journey to work from the CKB

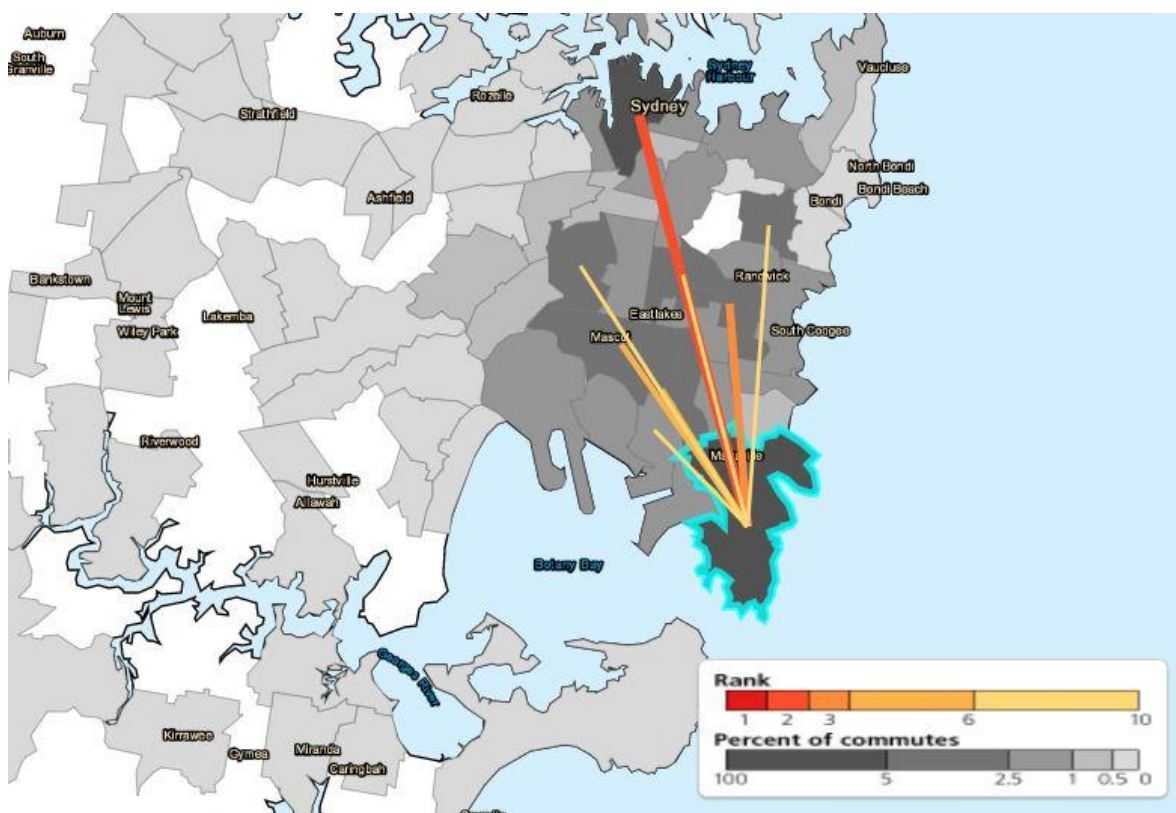


Figure 12: Journey to work from the MLPC

Mode of travel to work (place of work)

Of the 11,480 jobs located within the SEIA study area, public transport was used significantly less to travel to work when compared with Greater Sydney, this results in a higher vehicle use as shown in Table 22. The lower public transport use could be due to poor public transport connections or infrastructure linking to their place of work. As there are not many jobs located within the SEIA study area compared to population, the proportion of jobs which were worked at home is fairly higher than the Greater Sydney proportion. Notably the MLPC had 8.3% of its jobs reached by active transport, this could be due to it having a dense cluster of dwellings, but a small amount of jobs offered in comparison.

Table 22: Method of Travel to Work by Place of Work

Method of Travel to Work (PoW)	MLPC	CKB	SEIA study area	Greater Sydney
Public Transport	6.9%	7.8%	7.3%	23.7%
Vehicle	65.4%	70.0%	67.5%	57.7%
Active Transport	8.3%	4.9%	6.8%	4.9%
Other Mode	0.4%	0.5%	0.5%	0.5%
Worked at home or Did not go to work	18.1%	15.8%	17.1%	12.3%
Mode not stated	0.8%	1.0%	0.9%	0.9%

In 2016, 2,361 of the jobs located in the CKB were filled by local residents, this means the CKB has a job self-servicing rate of 37.49%. In 2016, 1,442 of the jobs located in the MLPC were filled by local residents, this means the MLPC has a job self-servicing rate of 29.01%. This suggests a higher self-containment for jobs rather than residents, however, this still a relatively low level. This is shown in Figure 13 and Figure 14.

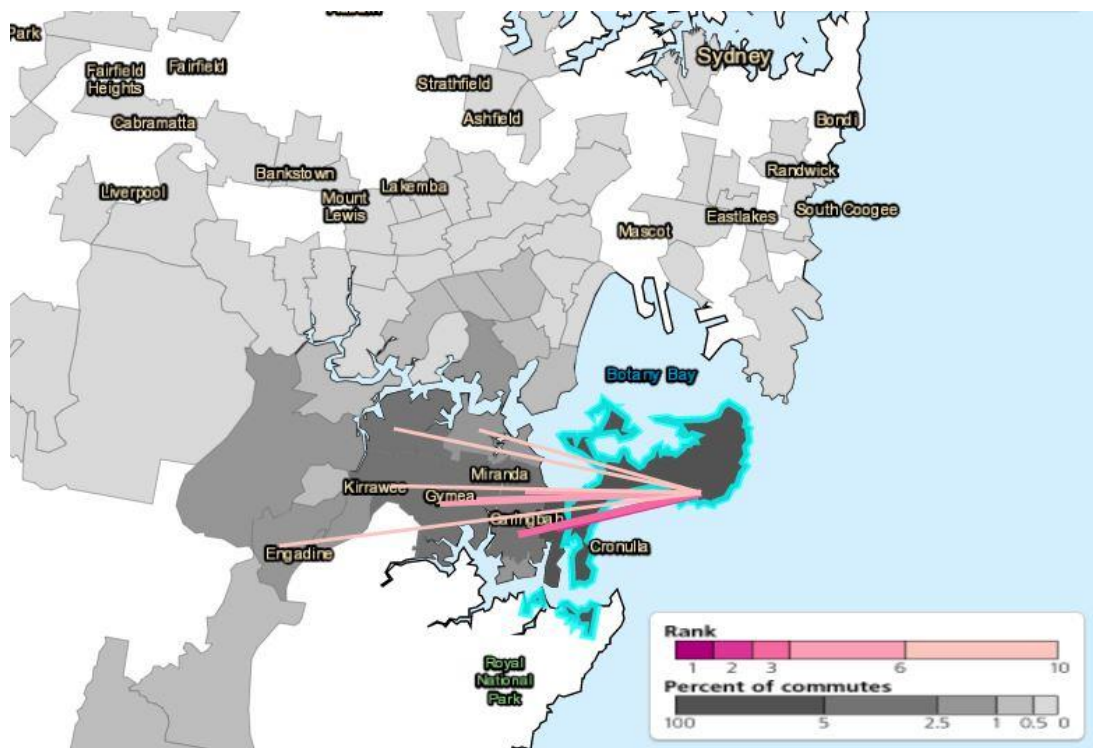


Figure 13: Journey to work to the CBK SA2

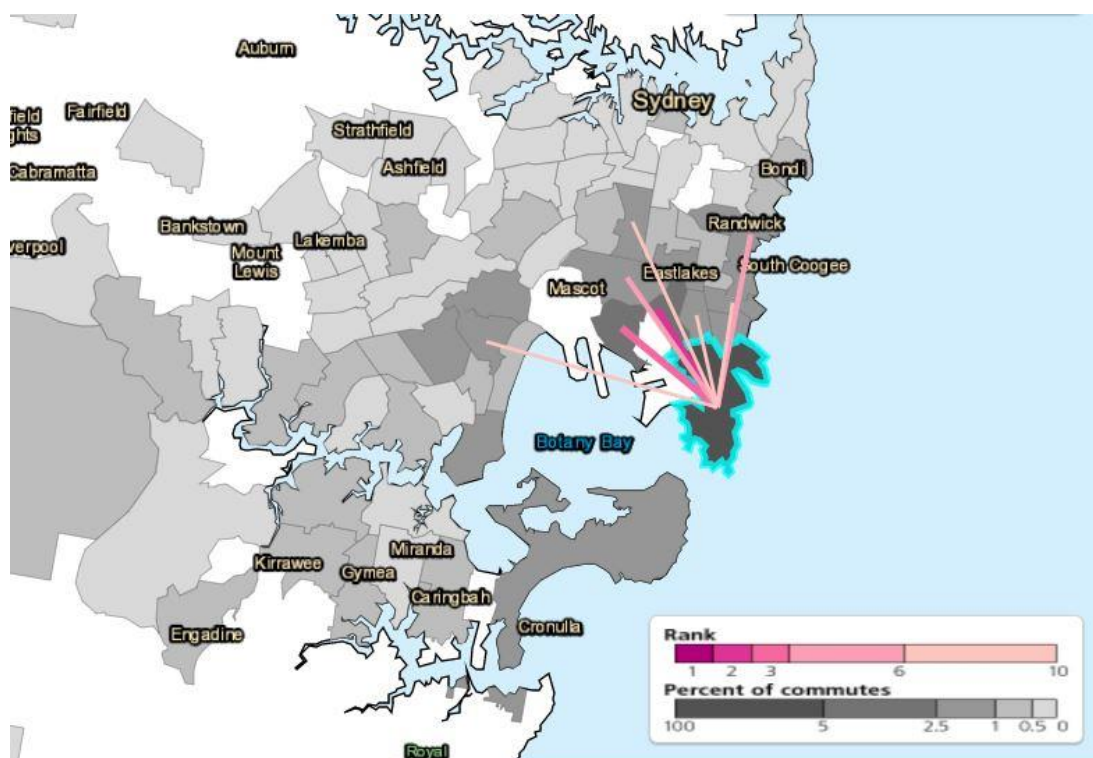


Figure 14: Journey to work to the MLPC

3.2.6 Overview

Drawing on this socio-demographic profile, it is possible to identify a number of broad community groups which may be impacted by the project, including:

- Residents and businesses located in close proximity to the project, with a particular focus on ageing populations, and a level of socio-economic disadvantage – particularly within Malabar.
- Visitors and users from across the SEIA study area, Sydney and further afield who travel to the area (or may do so in the future) to either visit one side of the bay, or travel between the two – including tourists, cyclists, walkers and other visitors.
- Aboriginal and Torres Strait Islander communities from whom the project and SEIA study area have an important cultural value and history.

All these groups are likely to experience impacts associated with the project, and the extent of those impacts may differ between groups.

3.3 Land use and social infrastructure

This section provides a summary of the land use context within the SEIA study area.

3.3.1 Property and access

All of the land within the project sites at both La Perouse and Kurnell is publicly owned. They are predominantly located within National Park land, with the waterways owned and managed by TfNSW. There is a small area of Crown-owned land within the La Perouse project site. There are four Aboriginal land claims which affect the project area. Further detail on property and land ownership is provided in Chapter 2 of the EIS. As such, property impacts are not considered further within this assessment.

Public access is enabled to all of the project site at present – including access by the local community for parking, and for recreational opportunities. This is an important value for the local community, and a key concern raised regarding the project.

There are a number of moorings also located within the SEIA study area. This includes approximately three moorings within the construction boundary at La Perouse (including a commercial, private and public mooring). Further detail on use of these moorings is provided in Section 3.3.3.

3.3.2 Current and future land use

Current land use

The project is located at La Perouse and Kurnell, on either side of the ocean entrance to Botany Bay. Both sites are located in the Kamay Botany Bay National Park, about 14-kilometres south of the Sydney CBD. The project area at Kurnell has heritage significance as the first meeting place between Aboriginal

Australians and the expedition of Captain Cook in 1770. Attractions at Kurnell include Cook's landing place, commemorative sculptures installed for the 250th anniversary of Cook's landing, and an environmental education centre.

At Kurnell, there is an existing jetty area used for recreational purposes. A previous ferry ran between this jetty and another at La Perouse.

To the west of Kamay Botany Bay National Park in CKB is a low-density residential area, several shops and an art gallery. The Caltex berthing facility is located about half a kilometre to the west of the Proposed wharf.

La Perouse is a popular tourist destination that provides open spaces, beaches and rocky shores. It contains several historic sites include the Bare Island fortifications, Macquarie Watchtower, Cable Station and La Perouse Museum. La Perouse is popular with visitors for sight-seeing, swimming, diving, angling and walking. There are also a number of restaurants located on the peninsula. La Perouse is surrounded to the north by the residential area of Phillips Bay.

Both areas are recognised as having environmental significance due to the biodiversity and heritage significance. Key environmental values include the marine habitats that contains seagrass meadows and known and potential heritage items and values; including Aboriginal heritage, non-Aboriginal heritage and underwater cultural heritage. Further information on biodiversity can be found in the Biodiversity Development Assessment Report (Appendix I of the EIS) and the Marine Biodiversity Assessment Report (Appendix H of the EIS).

Future land use

A review of land use zoning within CKB and MLPC suggests that land use is anticipated to remain relatively consistent in the future, and there are no major plans for change close to the project areas. However, in the broader Kurnell area there are aspirations for further industrial development, to support the current character. The project area in both Kurnell and La Perouse is predominantly located in zone E1 National Parks and Nature Reserve, as well as some RE1 Public Recreation. They are adjacent to small areas of B1 neighbourhood centre, alongside some low density residential and environmental living zones.

3.3.3 Social infrastructure

There are a number of community facilities and social infrastructure within the SEIA study area.

Socio-economic impacts of the project are considered most likely to occur to social infrastructure in close proximity to the project site. As such, detailed analysis has been undertaken of social infrastructure within proximity of the project area (defined as within 1-kilometre radius). This is shown in Table 23, Figure 15 and Figure 16. This has been informed by analysis of aerial photography and land use data.

Notably, Frenchmans Bay and Bare Island at La Perouse, and The Steps at Kurnell are both identified as valued locations for snorkelling diving, research and

recreational fishing. There are also numerous recreational boating activities that occur in and around the SEIA study area including:

- Rowing, sailing and boat racing activities primarily to the main sailing and motorboat clubs in the Botany Bay and Georges River areas
- Recreational based fishing represents a large percentage of the recreational boating activities in the bay
- The south side of the bay is popular with kite surfers
- Bare Island is a popular dive and snorkelling destination and the waters off La Perouse are a well-known spear fishing site
- Other recreational events in the area include swimming races, triathlons and other types of aquatic events which predominantly take place on the west side of the bay and clear of the wharves' locations
- During summer, numerous boats exit from the Georges River, ranging from dinghies to 40-foot vessels.

Fishing from vessels and the shore is also extremely popular in the region. In 2002, approximately \$4.1 million of recreational licence fees were used to buy out commercial fishing in Botany Bay to create one of the State's premier recreational fishing havens (Transport for NSW, 2015).

A number of recreational moorings within the SEIA study area, including approximately six to eight moorings owned by the Georges River Motorboat Club in Frenchmans Bay and one in Yarra Bay. Frequently on a Sunday, all the moorings will be occupied by their members. There are also numerous vessel moorings in Yarra Bay (north of the SEIA study area) both club and NSW Maritime owned. These are either prioritised for club member use or allocated on first come first served basis, respectively.

The project area is also located within Kamay Botany Bay National Park – which provides important recreational and social opportunities. The National Park has approximately 800,000 visitors per year, which is significantly lower than other major National Parks in and around Sydney. It is also a site of significant heritage importance, and contains a number of nationally and State designated heritage sites, including a number of monuments and structures associated with Captain Cook's Landing Place at Kurnell.

Within the wider SEIA study area, there are several roads and pedestrian and cycling routes (see Section 3.2.5) and above and below ground utilities within the SEIA study area. This includes the significant cluster of the Long Bay Correctional Complex, Long Bay Hospital, Matraville High School located in MLPC, in the north of the SEIA study area. It is not anticipated that any significant impacts will be experienced associated with these facilities as they are distant from the project site.

Aboriginal community social infrastructure

The Kamay Botany Bay National Park has cultural and historical significance for the Gweagal and Kameygal people of the Dharawal Nation (alternative names Tharawal and Turuwal). Various Aboriginal archaeological artefacts have been

recorded within the study area particularly, midden, rock engravings and loose shells. This environment in itself makes up part of the Aboriginal social infrastructure. Similarly, Botany Bay is an important resource for the Aboriginal community, including a place to meet, swim, play and gather food.

La Perouse is home to the former Aboriginal Mission of La Perouse (including the historic Colebrook Memorial Church and Yarra Bay House), and of community-controlled organisations such as the La Perouse Local Aboriginal Land Council, the Gamay Botany Bay Rangers and the Friends of the La Perouse Museum Inc. The Kurnell visitor centre is an important education facility for Aboriginal culture, located in the middle of Kamay Botany Bay National Park.

A plaque commemorating The Timbery Reserve is also located within the project area at La Perouse. This is of significant importance to members of the local Aboriginal community.



Figure 15: Social infrastructure within one-kilometre of La Perouse project area

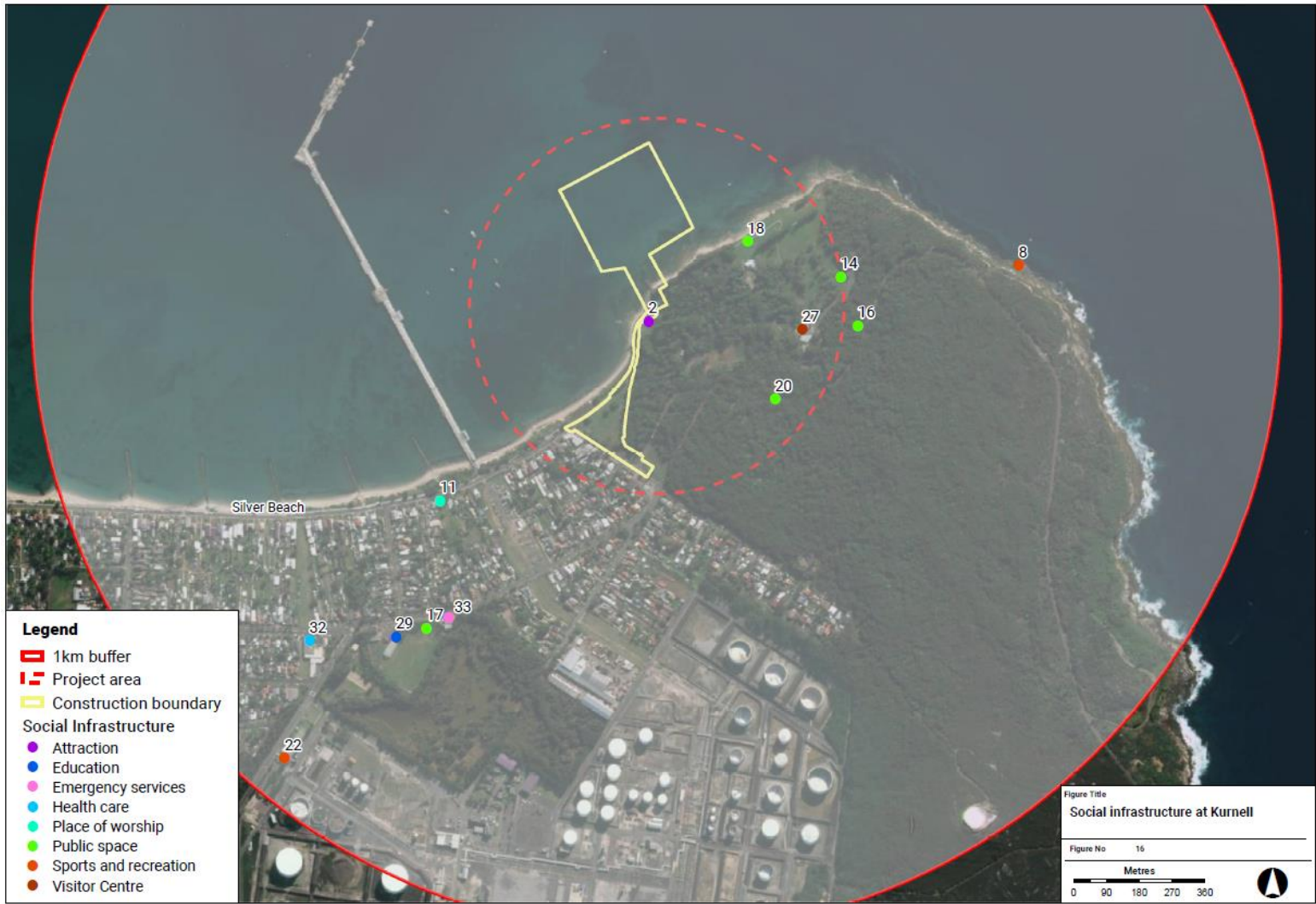


Figure 16: Social infrastructure within one-kilometre of Kurnell project area

Table 23: Social infrastructure within one-kilometre of the project site

Category	Map Ref	Facility type	Name	
Sport, recreation and cultural facilities	1	Attraction	Bare Island and Fort	La Perouse
	2	Attraction	Captain Cook's Landing Place including Cook's Monument and other important monuments and structures	Kurnell
	3	Attraction	Chinese Market Gardens	La Perouse
	4	Attraction	Customs Tower	La Perouse
	5	Attraction	La Perouse Museum	La Perouse
	6	Attraction	Macquarie Watchtower	La Perouse
	n/a	Beach	Congwong Beach and walking trails	La Perouse
	n/a	Beach	Frenchmans Beach	La Perouse
	n/a	Beach	Silver Beach	Kurnell
	n/a	Beach	Yarra Bay Beach	La Perouse
	7	Cultural institution	La Perouse Local Aboriginal land Council	La Perouse
	8	Fishing area	The Steps	Kurnell
	9	Place of worship	La Perouse Mission Church	La Perouse
	10	Place of worship	Lighthouse Baptist Church	La Perouse
	11	Place of worship	St John Fisher Catholic Church	Kurnell
	12	Playground	Frenchmans Bay Reserve Playground	La Perouse
	13	Public Space	Cann Park	La Perouse
	14	Public space	Commemoration Flat	Kurnell
	15	Public Space	Guriwal Bush Tucker Trail	La Perouse
	16	Public Space	Kamay Botany Bay National Park, including picnic area and cricket pitch	Kurnell
	17	Public Space	Marton Park	Kurnell
	18	Public Space	Monument Track	Kurnell
	19	Public Space	Yarra Bay Bicentennial Park	La Perouse
	20	Public space	Yena Walking Track	Kurnell
	21	Sports and recreation facility	Cullens Driving Range	La Perouse
	22	Sports and recreation facility	Kurnell Recreation Club	Kurnell
	23	Sports and recreation facility	NSW Golf Club	La Perouse

Category	Map Ref	Facility type	Name	
	24	Sports and recreation facility	Yarra Oval Sportsfields	La Pouse
	25	Sports and recreation facility	Yarra Bay Sailing Club	La Pouse
	26	Youth Centre	La Pouse Youth Haven	La Pouse
	27	Visitor Centre	Kamay Botany Bay Environmental Education and Visitor Centre	Kurnell
	34	Place of cultural significance	Timbery Reserve	La Pouse
Education facility	28	Child Care Centre	Eastern Zone Gujaga Aboriginal	La Pouse
	29	Child Care Centre	Kurnell Preschool Kindergarten	Kurnell
	30	Child Care Centre	KU Peter Pan La Pouse Preschool	La Pouse
	31	School	La Pouse Public School	La Pouse
Health, emergency and aged care	32	Pharmacy	Kurnell Pharmacy	Kurnell
	33	Fire Department	Kurnell Rural Fire Brigade	Kurnell

3.4 Community and stakeholder values

This section summarises key values of importance to the community within the SEIA study area and beyond. It draws on key outcomes of the community and stakeholder engagement processes for the project (see Section 2), including consultation with local Aboriginal communities, as well as a review of local community plans.

3.4.1 Social and community cohesion

Social cohesion refers to the positive social relationships in communities. While difficult to measure, a community's level of participation in voluntary work can be an indicator of community cohesion as community bonds can be strengthened and it involves giving help and provides opportunities for community engagement (Australian Bureau of Statistics, 2009). In the ABS 2016 census, about 13.3% of the SEIA study area's population reported doing voluntary work for an organisation or group. This is marginally lower than the participation rate in Greater Sydney (13.6%). When the SEIA study area is separated into SA2s, it suggests a different story. The MLPC had even less participation with 11.5% of the population however the CKB had a significantly higher rate of 15.1%. This suggests community cohesion is low in the MLPC.

Services provided in the community by groups, clubs, and charitable organisations can also provide support to communities, provide opportunities for community interaction, and create bonds. Kurnell has a community group and residents association while La Perouse has the La Perouse Local Aboriginal Land Council who are very active in the community. Social infrastructure in the study area is described in Section 3.3.

The La Perouse Museum hosts multiple small events and tours throughout the year, an example of these are bushwalks, flower arranging workshops and ocean life guides (Eventbrite, 2020). The Blak Markets is held quarterly with the mission to allow people to buy directly from local Aboriginal communities and the benefits of your sales go to their families and communities (Sydney.com, 2020). Kurnell has been hosting a Triathlon Sprint Series for 29 years, you can swim in Botany Bay, ride through the Kamay National Park and run this amazing piece of Sydney parkland every year (Running Calendar Australia, 2020).

Overall, there is considered to be some social cohesion in the SEIA study area, with events and organisation active in the community. However, there are some cohesion challenges in the MLPC in particular. In addition, it is noted that there is limited connection and cohesion between the two sides of Botany Bay that make up the SEIA study area. Given historic connections through the previous ferry services, this results in a reduced cohesion in the SEIA study area as a whole.

3.4.2 Wider community values

A review of the community plans for Randwick City and Sutherland LGAs provides us with an indication of the key aspiration the local community holds for the SEIA study area and wider region. These documents show a collective vision

for a connected and accessible community which has access to services and enhanced service provision. In addition, the importance of recognising and respecting Aboriginal land, people and culture is a key theme within both LGAs. Drawing on the aspirations and themes set out in these two documents, the following elements can be seen as important to the community, and their values:

- Addressing the needs or, and respecting and supporting the local Aboriginal communities within the SEIA study area
- Acknowledging the connection of Aboriginal communities to the project areas, and their important role in history
- Enhancing connectivity and accessibility across the communities, through public transport and other service provision
- Support health and wellbeing, of the community and a high quality of life, with a focus on liveability
- Support the local economy and a prosperous community
- Respect the beautiful and healthy natural environment.

3.4.3 Values associated with the Project

Going beyond government planning documents, this section identifies the community values associated with the project. Community values associated with the project have been drawn from community engagement undertaken for the project as summarised in the Consultation (Chapter 6 of the EIS).

Amenity and recreation

The consultation outcomes suggest that both the La Perouse and Kurnell project areas are considered of high amenity value to the community, as well as to wider community groups at the regional, state and national scale. Both locations provide views and vistas across Botany Bay and are near or part of important heritage sites. Protecting local access to open space, and views is important to the community. The broader local environment has also been raised as important to the local community, with concerns raised about construction and operational noise (including from ferry horns).

Recreational activities are also of importance. Key recreational users around the project area include beach and National Park users (Frenchmans Bay, Yarra Bay, Kurnell), swimmers/snorkellers, recreational boaters and fishing users. Being able to continue these activities is a key community value. In addition, private vessel access to any wharf has been flagged as important.

Consultation with the Recreational Fishing NSW Advisory Council and other relevant recreational fishing groups and organisations has been undertaken. A key theme noted in consultation was the desire to retain fishing areas and improve fishing facilities. The community appears to value protecting and enhancing the current level of amenity while minimising any negative impacts – particularly to biodiversity.

Data summarised in the Botany Bay, Georges River and Port Hacking Regional Boating Plan suggests there some perceived and actual challenges associated with

busy waterways and conflicts between multiple types of users, which are important to residents (Transport for NSW, 2015).

Sense of place and connections to land

Engagement outcomes show there is a strong sense of place and connection to the land. The Aboriginal people have been at La Perouse and Kurnell for over 3000 years and it is a h significant place for the Aboriginal community.

The summary below of Aboriginal community values is from the Kamay Botany Bay National Park Interpretation and Storytelling Plan (Wolfpeak, 2020):

The Aboriginal community continue to feel a strong connection to the place and have shared new perspectives on the stories and histories linked to their ancestors. These relate to known events, interaction with Europeans, and the usage of the place. At the same time providing greater acknowledgement of Aboriginal continuation through the colonial period of Australian history into today.

Through consultation as part of this project, stories about the use of the area and the previous wharves have been shared. Some of these are included on local signage, and include:

- *“We travelled with our parents to Kurnell on the Ferry and on foot across the sandhills to gather shells. My Dad and Mum and Aunty had a little business going with their shellwork and boomerangs”*
- *“As a child I remember every Sunday how our old people used to take their artefacts down to the Loop and La Perouse...The tourists and Sunday drivers would all stop to look or buy something”*
- *“We got to Kurnell by the ferry – all the drivers knew us...we virtually lived at Kurnell on the weekends...The drivers told us to be back at the wharf by 4.30pm sharp to catch the last ferry. We wouldn’t get back till 6 and we would be in trouble. [They] told us they wouldn’t bring us over the next time – but the next weekend came and we would be back there swimming, diving and forgetting about the time.”*

This demonstrate the long-term use of the area for water-based recreation, visitor attraction, employment and business, and cross-bay connectivity.

A plaque commemorating The Timbery Reserve is also located within the project area, as summarised in Section 3.3.3.

Level of concern about the project

Generally, it is understood from consultation that a substantial part of the community is supportive of the project. Both the non-Aboriginal and Aboriginal communities which interact with the project site and wider SEIA study area have suggested support for the connectivity and access which will be provided between La Perouse and Kurnell. This is for a number of reasons, including support for the visitor economy, an opportunity to showcase the importance of the area, and in particular the ability to reconnect with the land on either side of Botany Bay,

which holds important cultural value. Local tour operators have also expressed support for the opportunity to use the wharves for business purposes.

However, while there is general support, some community members have expressed certain concerns. These indicate some of the key factors which may be valuable to the community, such as:

- Concerns that existing parking and congestion issues will be exacerbated by an increased number of visitors to the area. This is reinforced by concerns regarding a lack of public transport options. This highlights an important value of access to the project areas. This was largely the most common concern with many residents being supportive of the ferry but not without improved parking facilities or of transport infrastructure to ensure their movement is not further impeded.
- Fears of damage to marine environment and the importance of the natural biodiversity of the project areas. This highlights an important value regarding environmental impacts.
- Concerns about conflicts with existing recreational and commercial harbour users, and impacts to recreational activities currently occurring within the area – particularly fishing and diving. This shows that recreation and economic uses in the project areas are highly valued by the community.
- Impacts to the existing amenity of La Perouse and Kurnell. Both areas are key local attractors, and there is a desire to retain the character of these locations. Some residents do not want an influx of additional tourists or for the land to become more developed and denser, they state that the current visitation numbers are already too high for the existing infrastructure.

3.5 Socio-economic baseline future conditions

The socio-economic baseline describes the existing social context of the local study area and its surrounds. This represents the likely conditions that would continue in the SEIA study area, in absence of the project.

Whilst population projections specific to the SEIA study area are not available, the Randwick LGA (home to MLPC) is expected grow by 20% by 2041, with Sutherland Shire LGA (home to CKB) forecast to increase by 18% by 2041. These projections are significantly lower than the Greater Sydney growth rate of 52%, and strategic planning documents and land use zoning does not indicate areas for significant residential growth in the SEIA study area. It is therefore likely that, with or without the project, the area will continue to look similar to the baseline today.

Given the existing land use designations at La Perouse and Kurnell, it is expected that development would not occur at a significant rate with or without the project. The land zoning would likely remain consistent with the potential for additional industrial development on the Kurnell side of Botany Bay. The existing jetty at Kurnell would likely remain, as is, and the open space at La Perouse would persist. The existing older jetty would likely require ongoing maintenance.

Without the project, the transport network and connection between Kurnell and La Perouse would remain poor. There would likely be a minor increase in visitors to Kamay Botany Bay National Park and the La Perouse attractions as domestic tourism rises and broader investments in public transport occur. The natural increase in visitors is unlikely to be as large without the project and the transport network may not receive the same investments.

Overall, in the absence of the project, it is anticipated that the future SEIA study area would experience similar social conditions to those set out in the social baseline.

4 Review of examples

This section provides a summary of a review of other similar projects to inform the impact assessment. It covers the following projects, which are summarised in Table 24:

- Barangaroo Ferry Hub (Transport for NSW, 2014)
- Caltex Wharf, Kurnell (Department of Planning, Industry and Environment, 2013)
- Birchgrove Wharf Upgrade (Transport for NSW, 2018)
- Milsons Point Wharf Interchange Expansion (Transport for NSW, 2017).

It is noted that the NSW Government is progressively upgrading ferry wharves across Sydney to improve ferry services for customers – the Wharves Upgrade Program (Transport for NSW, 2020). The new wharves are being delivered as part of the NSW Government’s Transport Access Program. This is an initiative to deliver modern, safe and accessible transport infrastructure across the state. This program aims to provide the following benefits:

- Improved customer amenity such as protection from the wind, rain and sun, seating and waiting areas
- Improved safety for customers
- Improved access for mobility impaired customers and customers with prams
- Quicker and more efficient boarding and disembarking
- Increased wharf capacity for future growth of ferry services
- More efficient interchanges with other modes of transport, both public and private and better way finding signage.

Table 24: Comparison of the project and other examples

Project name/ location	Key description	Key social and economic impacts assessed within the SEIA
Barangaroo Ferry Hub	<p>The Barangaroo Ferry Hub was comprised of the construction and operation of three new ferry wharves and ancillary landside facilities located in Sydney’s CBD.</p> <p>Relevance: Ferry hub project, within central Sydney.</p>	<p>A socio-economic impact assessment was undertaken for this project. Key impacts identified, included:</p> <p>Construction</p> <ul style="list-style-type: none"> • Reduction in local amenity due to increased noise and vibration, and reduced visual amenity • Temporary loss of open space • Temporary loss of parking • Temporary impact to water vehicle traffic • Potential temporary impact to commercial vessel operators • Positive employment opportunities. <p>Operation:</p>

Project name/ location	Key description	Key social and economic impacts assessed within the SEIA
		<ul style="list-style-type: none"> Improved quality of service and additional service capacity positive economic impact for nearby commercial outlets (some minor negative to specific businesses) Traffic reduction, and access Adverse visual amenity and noise impacts due to permanent visual change.
Caltex Wharf, Kurnell	<p>An upgrade of the Kurnell port and berthing facility and its ongoing operation and maintenance for Caltex Refineries. The upgrade extended the facilities operational life by 50 years.</p> <p>Relevance: within the SEIA study area, wharf upgrade.</p>	<p>No socio-economic impact assessment has been found for the project. However, the Environmental Impact Statement for the project identifies a range of impacts which have social elements, including a chapter assessing amenity, land use, recreation and navigation impacts. Impacts identified include:</p> <ul style="list-style-type: none"> Limited impacts to ecology, including seagrass beds (during construction and operation) No impacts to Aboriginal heritage values Small noise management level exceedances in targeted locations during construction Short-term temporary impacts to emitted odour for recreational water-based users A number of environmental and safety hazards associated with both construction and operation No permanent loss to recreational areas, but temporary proclution (on land and in marine areas) as a result of construction works Other recreational and commercial uses were considered to be unaffected by development A beneficial impact on navigational shipping channel due to reduced shipping numbers in the long term.
Birchgrove Wharf Upgrade	<p>An assessment of the old Birchgrove Ferry Wharf in 2009 identified the wharf as being in poor condition, potentially unsafe and having limited access for less mobile passengers. The upgrade aimed to deliver accessible, modern, secure and integrated transport infrastructure for the area.</p>	<p>A socio-economic impact assessment was undertaken as part of the review of environmental factors, and included:</p> <p>Construction:</p> <ul style="list-style-type: none"> Journey interruption and inconvenience for up to 120 passengers due to temporary wharf closure Potential minor increase in traffic volumes travelling away from the wharf User and amenity loss at local park for residents and visitors, which would be most notable during major events on the harbour User and amenity loss on the harbour due to the project's visual impact

Project name/ location	Key description	Key social and economic impacts assessed within the SEIA
		<ul style="list-style-type: none"> • Loss in sense of place and liveability in the local area while the project is being built • Loss of the use of the wharf as private taxi wharf and recreational fishing spot • Loss of access to the harbour front at the wharf • Increased traffic from construction vehicles. <p>Operation</p> <ul style="list-style-type: none"> • Limited loss in character and sense of place at the wharf due to the replacement of the wharf infrastructure • Improved waiting area and amenity for customers. • Wayfinding and navigation improvements to, from, and around the wharf due to signage improvements • Quicker and more effective embarking and disembarking for ferry users, resulting in reduced travel times.
Milsons Point Wharf Interchange Expansion	Milsons Point Wharf was upgraded in 2010, but required an expansion to improve access to the wharf and provide capacity to support additional ferry services provided by the new Inner Harbour and Parramatta River ferries. The expansion also aimed to improve interchange access for people with a disability.	<p>A socio-economic impact assessment was undertaken as part of the review of environmental factors, and included:</p> <p>Construction:</p> <ul style="list-style-type: none"> • Exceedances of the noise criteria for night time periods of construction during hammering in piles • Existing ferry services would continue • Loss of amenity and views for residents and local businesses during construction • Travel disruptions during construction and parking impacts • Impacts to local businesses – access and amenity. <p>Operation</p> <ul style="list-style-type: none"> • Minor impacts to local heritage site • Improved access to local area and enhanced experience • Additional ferry capacity during operation which improves public transport quality • Increased capacity of wharves for water based movements • Recreational vessels berth usage will be improved

4.1 Implications for the SEIA

Drawing on these examples, common socio-economic impacts assessed and community concerns about a ferry facility include:

- Temporary negative construction impacts on amenity as a result of noise, vibration, and visual changes
- Temporary negative construction impacts to parking provision and movement patterns
- Temporary negative construction impacts through the removal of open space for construction sites
- Positive employment impacts during both construction and operation as a result of the project
- Positive operational impacts for local businesses, particularly retail and food and beverage providers
- Positive operational impacts through reduced road traffic and improved local accessibility
- Positive operational impacts through provision of enhanced recreational opportunities and berthing spaces for private vessels.

This research demonstrates that there are a broad range of factors that can be included in a social and economic assessment, ranging from amenity impacts associated with temporary environmental changes, social benefits associated with traffic and transport improvements, and potential economic benefits.

The SEIA will also address key stakeholders' values, concerns and needs to understand how the project might influence those features the community holds dear.

5 Assessment of potential construction impacts

This section provides a summary of the potential socio-economic impacts anticipated as a result of the project during construction, having regard to the project description (Chapter 5 of the EIS), socio-economic baseline (Section 3 of this report) and other relevant information as part of the wider EIS. This section is structured to cover topics for assessment as noted in Section 2.5 of this report, in accordance with practice note EIA-N05 for a ‘moderate’ assessment, having regard also to the DPE Social Impact Assessment Guideline (DPE, 2017).

Any mitigation, management or enhancement measures are introduced in Section 8, with residual impacts assessed in Section 9 of this report.

5.1 Property and land use impacts

This section summarises the potential socio-economic impacts of the project during construction on personal and property rights and land use within the SEIA study area. Socio-economic impacts associated with permanent changes during operation are assessed in Section 6.1 of this report.

5.1.1 Property and access

Property acquisition

There are **no anticipated socio-economic impacts** associated with property acquisition for the project. As discussed in Chapter 2 of the EIS, the project will be built on State land that is owned and administered by various public authorities. It also includes areas of Crown Land. Transport for NSW will engage with the applicants of the Aboriginal land claims to resolve prior to construction commences. As such, no private land needs to be acquired for the purposes of the project.

Access to property

Impacts to existing private property accesses during construction as expected to be limited. The Boathouse at La Perouse is the only business which may experience direct access impacts during construction, when utility trenches are being dug during stage 2 of construction. However, access to the Boathouse would be retained throughout the course of the project, whether by alternative entry or continued use of existing access. It is understood these impacts will be short-term, temporary, and staged to avoid/limit impacts where possible. Arrangements will be made to ensure continued access for patrons and staff of the Boathouse. It is understood that any impacts would not prevent the business from operating, and while they may disrupt the operating pattern and patronage of the business for a short period of time, this is expected to be minimal.

No other significant impacts to business or property accesses are anticipated as a result of the project. It is likely that the construction could be staged so that the

roads are reduced to one-lane traffic, rather than closed completely. This may result in disruption to people's routines, but is unlikely to constrain their access to their properties for any significant length of time.

Overall, impact to access to property during construction is assessed to be of low magnitude, with moderate sensitivity, resulting in a **low negative socio-economic impact** to property access within the SEIA study area.

There may also be amenity impacts experienced by businesses in proximity to the project area. This is addressed in Section 5.4.

Access to moorings

Three moorings at La Perouse (including a commercial, private and public mooring) would need to be permanently relocated to accommodate the project. This may result in some disruption to the routine and patterns of users. However, it is expected that these will be relocated as close as possible to their existing position, and as such no substantial impacts to property and access rights associated with these moorings are predicted. Overall, this impact prior to construction is assessed to be of low magnitude, with low sensitivity, resulting in a **low negative social economic impact** to mooring access within the project area. There will be no impact to moorings outside of the project area.

5.1.2 Land use

There is potential for a minor negative impact to existing land use during construction of the project, with regard to the Monument Track in Kurnell, due to use of the footpath as construction access. However, there are other pedestrian access pathways in the National Park. Detours would be established as required during the construction period, with an aim to minimise any additional travel time for pedestrians where possible. As a result, pedestrians may have to travel slightly less convenient paths, but construction would not significantly impact access for pedestrians.

Overall, this impact during construction is assessed to be of low magnitude, with moderate sensitivity, resulting in a **moderate-low negative socio-economic impact** to land use within the project area. **No impacts** to future land use are anticipated, and there will be **no socio-economic impact** to moorings outside of the project area.

The broader recreational impacts of access restrictions are assessed further in Section 5.5 and 5.6.

5.2 Socio-demographic impacts

This section summarises the potential impacts of the project during construction on community composition and demographics within the SEIA study area. Socio-demographic impacts associated with permanent changes during operation are assessed in Section 6.2.

During construction, the project is expected to have limited impacts upon the socio-demographic profile of the SEIA study area or wider region, including gender split, age, population growth, household composition, and socio-economic disadvantage. As set out in Chapter 5, Project description of the EIS, the project will create about 45 full time equivalent construction jobs over the construction period, which is relatively small in scale. Noting an already high proportion of construction workers in the SEIA study area, as summarised in Section 3.2.4, it is unlikely that this construction workforce will result in a significant influx of people temporarily or permanently moving to the SEIA study area, or wider Region. It is expected this will largely be accommodated within the existing population. The construction employment may result in some construction workers moving temporarily to the area for the period of the project's construction, but this is expected to be very low-scale. The economic impacts of this employment are assessed in Section 5.3.

During construction, it is not anticipated that the project will particularly impact on the demographic composition of any of identified priority communities (e.g. elderly communities) that may be more vulnerable to project impacts. Potential impacts to these groups regarding amenity and community values are explored in Sections 5.4 and 5.7 of this Report.

The SEIA study area is also home to a significant proportion of people who identify as ATSI. This is particularly the case in La Perouse. The size and make up of these communities are unlikely to be impacted during the construction phase, noting the above analysis. Broader impacts on the existing local Aboriginal community regarding amenity, cultural values and other socio-economic impacts are integrated into the following sections.

Based on this, it is assessed that impacts to socio-demographic composition during construction will be **negligible**.

5.3 Economic impacts

This section summarises the potential impacts of the project upon the economy, economic profile and businesses within the SEIA study area and wider region. Economic impacts associated with permanent changes during operation are assessed in Section 6.3.

5.3.1 Employment

It is anticipated that the project would result in positive impacts to local employment and therefore financial and job security.

As summarised in Section 3, the construction industry employs a large proportion of the SEIA study area population, and accounts for many businesses in the area and wider Greater Sydney region. The construction of the project will require trades and construction personnel, sub-contract construction personnel and engineering, functional and administrative staff. While workforce size will vary across the day and throughout the phases of the project, it is estimated that the project will generate about 45 full time equivalent jobs. The average number of construction workers on site each day would be 25 workers, with a peak expected

to be 38 workers during the main construction stage. In comparison to the 11,480 jobs within the SEIA study area, the 45 jobs proposed is considered to be minimal.

However, this increase in employment will support the strong existing skills based, and support local job provision. This may also create education benefits, in supporting the upskilling of the local community in construction skills. More local jobs could also enhance people's way of life by reducing the need to commute to other employment areas located further away, which would provide more time for other activities such as recreation.

Improved employment can have a number of social benefits, including reducing financial hardship and housing stress, improving access to services, social isolation, crime and impacts to mental and emotional health and wellbeing. As such, the proposed employment, while relatively small scale, will contribute to improving social and economic stability and associated factors in the area. This will be particularly useful for those area in La Perouse which experience a lower score on the SEIFA. The project also provides the potential for members of the local Aboriginal Community to be employed during construction, and Aboriginal Participation in Construction (APiC) requirements would be met during the construction phase in accordance with the NSW Government Aboriginal Procurement Policy.

This direct employment from project construction is assessed to be a **positive socio-economic impact** to employment within the SEIA study area.

In addition, the project is anticipated to generate a number of indirect jobs, including several through the supply chain regarding raw materials and products. Although the unemployment rate is already low in the SEIA study area (as discussed in Section 3.2.4), this could lead to a further improved employment status and similar positive outcomes to those outlined for direct employment. Higher employment rates can improve financial status and potentially mental and emotional health and wellbeing. This indirect employment from project construction is assessed to be a **positive socio-economic impact** to employment within the SEIA study area.

5.3.2 Industry

Noting the potential for construction jobs and supply chain opportunities, it is anticipated that the construction phase of the project could further support the already strong construction industry in the SEIA study area – through providing pipeline and security for local businesses. Noting the small scale of the project relative to the industry size – both in the SEIA study area and Greater Sydney as a whole – the socio-economic impact during construction is assessed to be **negligible**.

As noted in the baseline, La Perouse and Kurnell play an important role for tourism in SEIA study area, Greater Sydney, and wider Australia. During construction, there is potential for the works to result in some impacts to the tourism industry in the area. Actual and perceived changes in access, visual amenity, noise and dust (see Sections 5.4, 5.6 and 5.7) may act to deter people

from visiting the area, resulting in reduced footfall and patronage for tourism businesses within the SEIA study area, and a lack of momentum for further investment in tourism within the area. Those visitors that do visit La Perouse and Kurnell may also experience impacts to their satisfaction and enjoyment, which could translate to reduced expenditure and time spent in the SEIA study area for the life of the construction phase.

The Underwater Noise Impact Assessment suggests that the project is expected to generate impacts for recreational water users, including divers – as a result of piling activities. Further detail on this impact is provided in Section 5.4.2. It is important to note, however, that this may impact on the ability of existing tourism operators to operate within the SEIA study area while piling occurs.

However, the project area is of national, if not global importance, as such it is considered that visitors will continue to be attracted, regardless of construction activities.

Overall, the impacts to the tourism industry in the SEIA study area during construction are therefore assessed to be of low magnitude and low sensitivity – resulting in a **low negative socio-economic impact** within the SEIA study area.

It is considered these impacts would be localised and would not significantly impact upon the wider tourism industry in Greater Sydney or Australia. While Kurnell in particular is an important site for tourism, the wider region is home to a number of key attractors and it is considered that any shift in visitor numbers in the SEIA study area would be **negligible** for the industry as a whole.

5.3.3 Businesses

As summarised in Section 3.2.4, there are a few key businesses which are immediately adjacent to the project area. In particular, The Boatshed restaurant at La Perouse, and a range of small food and beverage businesses at Kurnell.

The number of businesses impacted is limited to those immediately adjacent to the project area. The Boatshed restaurant may experience some changes to access during stage 2 of construction, associated with utilities trenching. However, access will be retained throughout the project, and it is understood that these changes would be temporary in nature and would not prevent the business from continuing to operate.

No other businesses will experience any access impacts during construction. However, users of these businesses during construction may experience amenity related impacts, such as noise and dust, while work is being undertaken (see Section 5.4 for more detail). Some of these businesses may rely on passing trade from visitors to the area, and those which are adjacent to construction sites may experience a reduction in trade, particularly where they are amenity focussed (e.g. The Boatshed restaurant). Moreover potential impacts on parking and congestion (as summarised in Section 5.5.) may lead to challenges for local businesses regarding ease of access for customers, and deliveries and staff access.

Several commercial properties within 20 meters of the construction activities and haulage routes at the Kurnell site along Captain Cook Drive may experience a

minor dust and odour impact and moderate visual and noise impact. Other businesses might include (alongside the Boat House), the La Perouse Museum, businesses along Anzac Parade (in La Perouse) and some businesses near the waterfront on Captain Cook Drive in Kurnell.

These impacts are limited to businesses within the immediate vicinity of the project area.

No impacts specific to local Aboriginal businesses or organisations are anticipated as a result of project construction.

Overall, the impacts to the local businesses in the SEIA study area during construction are therefore assessed to be of low magnitude and moderate sensitivity – resulting **in a moderate-low negative socio-economic impact** within the SEIA study area.

Approximately 80% of boating activities (commercial and recreational) are conducted well away from the locations of the proposed wharves at La Perouse and Kurnell and the potential ferry operation. As such, it is not anticipated that the construction phase would impact significantly on the commercial vessel usage within Botany Bay. However, it is noted that there may be some short-term impacts to commercial vessel routes requiring them to deviate from their current course. This is not expected to alter their ability to function. Further detail is provided in the Navigational Safety Assessment (Appendix L of the EIS). Overall, the impacts to commercial water vessels in the SEIA study area during construction are therefore assessed to be of low magnitude and low sensitivity – resulting **in a low negative socio-economic impact** within the SEIA study area.

5.4 Amenity impacts

This section summarises the potential impacts of the project during construction related to the amenity within the SEIA. Amenity impacts associated with permanent changes during operation are assessed in Section 6.4.

5.4.1 Visual impacts

This section summarises the potential impacts of the project during construction related to landscape and visual amenity within the SEIA study area. Landscape and visual impacts associated with permanent changes during operation are assessed in Section 6.4.1.

Landscape character

Some significant socio-economic impacts are anticipated as a result of changes to landscape character during construction of the project. Drawing on the Landscape Character and Visual Impact Assessment Report (Appendix M of the EIS), the impact is considered to be concentrated predominately within the construction footprint, across the two project areas. At Kurnell, noting the sensitivity of the location within the Kamay Botany Bay National Park, the Landscape Character and Visual Impact Assessment Report (Appendix M of the EIS) identifies that the removal of the existing wharf viewing platform, and the introduction of an 85m

temporary causeway will result in a change in the existing character, and a high landscape impact. Noting a less-intrusive construction methodology, La Perouse is identified to experience a moderate landscape impact during construction. La Perouse headland is also largely cleared of remnant vegetation and therefore poses less risk of vegetation disturbance than Kurnell, during construction. However, the construction works are considered to be incongruous with the picturesque headland used for predominately recreational and cultural activities.

Beyond the direct project area and immediate surrounds, the impacts to landscape character are anticipated to be inconsequential. However, noting that the project area is utilised by a majority of people who live outside of the area – the socio-economic impacts are expected to reach communities much further afield.

This incongruous character is likely to result in socio-economic impacts to residents, visitors and recreational users around the project area, from across the SEIA study area and wider Greater Sydney. It may prompt a sense of loss of valued character and impact on their ability to enjoy this important area. Overall, socio-economic impacts associated with landscape character changes during construction are anticipated to be high in magnitude and moderate in sensitivity – **resulting in a high-moderate negative socio-economic impact.**

Views

The project is anticipated to have some negative socio-economic impacts associated with views within relatively close proximity to the project area during construction. This is largely due to the sensitivity of receptors and locations within the area adjacent to the project area.

As articulated in the Landscape Character and Visual Impact Assessment Report (Appendix M of the EIS), views from Anzac Parade, La Perouse Museum and Frenchmans Bay in La Perouse are anticipated to experience a range of high to moderate impacts due to direct views of the construction laydown area, site offices and machinery, which will significantly alter existing views. Similarly, from Captain Cook's Landing Place and Prince Charles Parade at Kurnell, direct views of the wharf structural components and construction equipment will significantly impact on the high-quality views within the area.

These views currently provide an important role for the residents of the SEIA study area, as well as visitors from Greater Sydney and beyond. These significant changes to views may impact on the recreational and scenic qualities of the project area and its surroundings. This could impact on the community's enjoyment of the area and the values they place on this community asset. However, it is noted that these impacts will be temporary in nature.

Overall, socio-economic impacts associated with changes to views in the immediate vicinity of the project area during construction are anticipated to be moderate in magnitude and high in sensitivity – **resulting in a high-moderate negative socio-economic impact.**

Socio-economic impacts are anticipated to be low for changes to views within the wider SEIA study area – noting that these were assessed to be either negligible or low-moderate within the LVIA. The construction works would be perceptible in

views from Phillip Bay and Port Botany – but barely noticeable given the distance. Overall, socio-economic impacts associated with changes to views in the wider SEIA study area during construction are anticipated to be low in magnitude and low in sensitivity – **resulting in a low negative socio-economic impact.**

5.4.2 Noise impacts

This section summarises the potential socio-economic impacts of the project during construction as a result of noise within the SEIA study area. It covers terrestrial and underwater noise impacts. Impacts associated with permanent changes during operation are assessed in Section 6.4.2.

Surface noise impacts

During construction, the Surface Noise and Vibration Impact Assessment Report (Appendix O of the EIS) reports that there will be some impacts to local receivers. These are anticipated to result in some negative socio-economic impacts for communities within the immediate vicinity of the project area.

Earthworks for carparking at La Perouse and landscaping at both sites are predicted to exceed project Noise Management Levels (NMLs), where the use of equipment such as the excavator and compactor whacker plates contribute the most to noise emissions. In addition, impact piling works are predicted to generate the most significant noise impacts, with exceedance of project NMLs for almost all identified receivers. It is expected that piling may occasionally happen outside of standard working hours, but overall these impacts will be temporary in nature, and largely focused in standard working hours. In addition, the noise impacts will be managed to reduce impacts to nearby communities as much as possible (see Section 8, Mitigation).

This construction noise is expected to impact the residential and commercial receivers within close proximity at La Perouse and Kurnell. The most impacted receivers will be The Boatshed at La Perouse and the commercial and residential properties at the most northern point of Captain Cook Drive in Kurnell. It is understood that these noise exceedances are above ‘highly affected targets’ and sufficient to cause disturbance to receivers, but not to impact on physical health. This increase in noise may lead to stress and/or changes in people’s behaviours (such as not using outdoor spaces or parks, or keeping windows and doors closed). Out of hours work may also cause sleep disturbances, which could have health and wellbeing implications if ongoing. In particular, it is noted that a higher than average elderly population is resident in the SEIA study area – this group may be particularly vulnerable to noise impacts, which may be more significant for these communities.

These impacts will be focused in the area immediately surrounding the project area, while impacts to the wider SEIA study area would be negligible, though noting that people from the broader region who frequent the project area and its surrounds would also be impacted. In particular, this would apply to recreational uses at nearby beaches and open spaces, as well as water-based recreational users.

Overall, therefore impacts associated with changes to noise levels in the immediate vicinity of the project area during construction are anticipated to be moderate in magnitude and moderate in sensitivity – **resulting in a moderate negative socio-economic impact.**

Construction vibration

The Surface Noise and Vibration Impact Assessment Report (Appendix O of the EIS) reports that construction vibration impacts would be generated by the pile driving. Building or human impacts from vibration intensive plant would only be experienced within approximately 20 metres for pile driving, and two metres for pile boring. This is well within the project area, and no impact to residences or businesses will occur. Therefore, there will be **no socio-economic impacts** associated with vibration within the SEIA study area, or beyond during construction.

Construction traffic noise

The Surface Noise and Vibration Impact Assessment Report (Appendix O of the EIS) assesses construction traffic noise impacts to be negligible in nature. Noise associated with construction vehicles travelling to and from the site is expected to not be audibly noticeable as it will be well below criteria which is 55 decibels at closest residence. While road noise policy does not require criteria for commercial properties, it is expected that the commercial properties at Kurnell would experience a similar impact to the residential properties. The Boatshed at La Perouse is closer than all residential properties, and therefore may experience a greater noise impact than recorded in the report for construction traffic – although this is still likely to be well below the criteria used in the Surface Noise and Vibration Impact Assessment Report (Appendix O of the EIS). As such, impacts associated with construction traffic noise are anticipated to be low sensitivity, and negligible magnitude, resulting in an overall **negligible socio-economic impact.**

Under-water noise impacts

The Underwater Noise Assessment (Appendix P of the EIS) reports that underwater noise impacts are anticipated during the pile driving phase of construction, which has the potential to generate negative socio-economic impacts close to the project area. The assessment notes that piling activities could cause a ‘startle response’ for divers. This suggests that while noise levels will not likely cause injury to humans, they may cause people to ‘startle’, and as such act in a manner which presents risks to their safety. While this startle response is most likely to impact divers, it will also impact swimmers and other under-water users.

The underwater noise impact also has the potential to impact on the health of marine wildlife, and temporarily scare fish away from the area, and therefore negatively impact the experience for people fishing and spearfishing. This may impact on their ability to use the area for fishing, causing them to seek other locations to fish, or disrupting their routine and way of life.

A conservative approach to modelling has been undertaken, which means the actual impact is likely to be less than modelled. It is also anticipated that the majority of the under-water noise production will be within standard working

hours, and therefore will not coincide with peak periods for recreational water use (i.e. weekends). However, if required some piling activities may have to be undertaken outside of these standard hours, which would be more likely to cause impact to recreational users after work or on weekends.

Overall, the socio-economic impacts associated with changes to underwater noise levels in the SEIA study area during construction are anticipated to be low in magnitude (noting the small scale of people impacted) and high in sensitivity – **resulting in a moderate negative socio-economic impact.**

5.4.3 Air quality impacts

This section summarises the potential socio-economic impacts of the project during construction as a result of air quality within the SEIA study area. Air quality impacts associated with permanent changes during operation are assessed in Section 6.4.3.

Socio-economic impacts during construction as a result of air quality are considered to be minimal. The Air Quality Assessment Report (Appendix V of the EIS) predicts the impact to surrounding air quality from dust and particulate matter to be low to medium for commercial and recreational receivers that range from medium to high sensitivity (with higher sensitivity at Kurnell). This is due to the amount of construction work required and the distance between the proposed works and sensitive receivers (commercial, recreational and residential receivers). Air quality impacts in the broader SEIA study area are not expected.

For the identified sensitive receptors, including the businesses and residences within the immediate vicinity of the project area at La Perouse and Kurnell, this may mean that they need to keep windows and doors closed to prevent dust and may need to spend additional time cleaning indoor/outdoor surfaces. Outdoor civic spaces such as La Perouse Point would also be exposed to the impacts of dust, resulting in a reduced amenity of these spaces. However, the scale of impacts is expected to be relatively low.

Overall, the socio-economic impacts associated with changes to air quality in the SEIA study area during construction are anticipated to be low in magnitude (noting the small scale of people impacted) and moderate in sensitivity – **resulting in a moderate-low negative socio-economic impact.**

Odour generation is assessed in the Air Quality Assessment Report (Appendix V of the EIS) to be a low risk, temporary impact and negligible overall. As such, the socio-economic impacts associated with changes to odour in the SEIA study area during construction are anticipated to be negligible in magnitude and low in sensitivity – **resulting in a negligible socio-economic impact.**

5.5 Access and connectivity impacts

This section summarises the potential impacts of the project during construction on transport access and connectivity within the SEIA study area. Access and connectivity impacts associated with permanent changes during operation are assessed in Section 6.5.

5.5.1 Traffic and congestion

Over the 13-month construction period, the Landside Traffic and Transport Assessment Report (Appendix K of the EIS), anticipates that about 20 vehicles would arrive and leave both La Perouse and Kurnell every day, increasing to 50 vehicles during the site establishment period. Around 25 people are reported as anticipated to be working at each site per day during construction, which would increase to around 40 people during the main construction stage.

The volume of traffic reportedly expected from construction vehicles and construction workers could be easily supported on the existing road network without creating delay or impacting on existing network performance. Modelling results discussed in the Landside Traffic and Transport Assessment Report (Appendix K of the EIS), indicate that existing intersections have significant capacity to accommodate the limited construction traffic anticipated.

Traffic management will be required for specific activities during the construction period, this impact will be temporary and should not significantly impact the resident population. While it is likely that visitation will be lower during the construction phase, residents will still experience a minor frustration due to the traffic management.

Overall, the socio-economic impacts associated with changes to traffic and congestion in the SEIA study area during construction are anticipated to be low in magnitude (noting the small scale of people impacted) and moderate in sensitivity – **resulting in a moderate-low negative socio-economic impact.**

It is noted that traffic and congestion are a major concern within the local community and there is potential for perceived impacts in this area. This is addressed in Section 5.7.2.

5.5.2 Alternative travel modes

The Landside Traffic and Transport Assessment Report (Appendix K of the EIS) indicates that there is unlikely to be any travel mode shifts during the construction phase of the project as the ferry will not yet be operational and transport networks will remain unchanged. As such, **no socio-economic impacts** associated with alternative travel modes will occur in this area during construction.

There may be impacts to pedestrians as a result of site fencing and closure to the Monument Track. These are addressed under Section 5.6 and 5.7.1.

5.5.3 Parking

The Landside Traffic and Transport Assessment Report (Appendix K of the EIS) indicates that, for the majority of the construction period, there would be no direct impacts on existing parking areas at La Perouse and Kurnell as the construction and construction compound areas are located within the National Park, outside of the road corridor. There would be temporary impacts to car parking areas where the proposed car parks are to be reconfigured at La Perouse. This would be for a duration of about two months. The reconfiguration of car parking would impact

20 bays at La Perouse (around six percent of total parking in Anzac Parade loop road).

Construction workers would arrive to site by construction vehicles, private vehicles, public transport and shared vehicles. The majority of construction worker vehicles would be able to park within the nominated construction compounds. It would be the responsibility of the contractor to ensure that where this is not achievable, alternative arrangements are made for construction worker transport.

The temporary reduction in parking during the reconfiguration of parking areas at La Perouse may contribute further to existing parking constraints in the area. However, this will be for a short duration across the construction program. Overall, the socio-economic impacts associated with changes to parking during construction in the La Perouse part of the SEIA study area are anticipated to be low in magnitude and moderate in sensitivity – **resulting in a moderate-low negative socio-economic impact**. For Kurnell, no impacts to existing parking provision are anticipated.

It is noted that traffic and congestion are a major concern within the local community and there is potential for perceived impacts in this area. This are addressed in Section 5.7.2.

5.5.4 Accessibility and emergency access

It is not expected that the construction of the project will result in any changes to existing disability access. It is expected that disabled parking will not be impacted by the project during construction.

It is not expected that the construction of the project will result in any changes to emergency service provision or access routes. Although access to some roads, car parks and pedestrian footpaths would be impacted temporarily, alternative access routes would be provided.

5.6 Social and shared infrastructure

This section summarises the potential impacts of the project during construction on social infrastructure within La Perouse and Kurnell, and the wider SEIA study area. Social infrastructure impacts associated with permanent changes during operation are assessed in Section 6.6.

5.6.1 Community infrastructure

The construction phase will have minor impacts to a small amount of community infrastructure within La Perouse and Kurnell.

No education and health facilities, community centres or childcare centres will be directly impacted as a result of the construction phase.

However, the land-based haulage route for Kurnell will pass the Kurnell Preschool Kindergarten and the Kurnell Rural Fire Brigade. The La Perouse land-

based haulage route indirectly passes the La Perouse Public School and one pedestrian crossing. This may have a very minor indirect impact on access around pick up time or during an emergency. These facilities may also experience amenity impacts associated with being along the haulage routes, including noise and air quality. However, the technical assessments (Air Quality Assessment Report (Appendix V of the EIS), Surface Noise and Vibration Impact Assessment Report (Appendix O of the EIS)) do not anticipate significant construction impacts in the wider SEIA study area (see Section 5.4). Overall, the socio-economic impacts associated with community infrastructure in the SEIA study area during construction are anticipated to be low in magnitude and low in sensitivity – **resulting in a low negative socio-economic impact.**

Some other key community facilities may also experience amenity and access impacts during construction, including the La Perouse Museum, Macquarie Watchtower, Bare Island Fort and Captain Cooks Monument. This could affect visitation numbers and satisfaction during the construction phase for these facilities, and limit their ability to function fully for the community they serve. Amenity impacts are assessed in Section 5.4.

5.6.2 Public realm and open space

The public realm and open space surrounding the project sites will be minorly impacted during the construction phase. Some of the public space, rocks and coastal areas to the southwest of the La Perouse project area (La Perouse Point) will be inaccessible during the construction phase. This space will be utilised as part of the construction site and will be fenced off from the public, which will prevent residents and visitors from using this public space. However, a portion of La Perouse Point will be retained for public use throughout construction, and an effort has been made to minimise the construction footprint to reduce impacts to a minimum.

As identified in Section 5.1, a portion of the Monument Track footpath in Kurnell will be closed during the construction phase. This will be used as a temporary access road through the period of construction. This route provides a key access to the Captain Cook Monument from Kurnell into the Kamay National Park. It also represents a popular community and visitor route for walking and cycling, and provide access to local beaches popular for kite surfing. There are alternative pathways in the National Park. Detours would be established as required during the construction period, with an aim to maintaining the current use of the public realm and access to key recreational sites where possible.

No impacts are anticipated to public realm within the wider SEIA study area. However, the public realm within the SEIA study area and project area are used by community members from beyond the study area boundary – and as such these communities may also experience the impacts summarised as visitors.

Overall, the impacts associated with impacts to public realm and open space during construction are anticipated to be moderate in magnitude and moderate in sensitivity – **resulting in a moderate negative socio-economic impact.**

The impacts as a result of this open space impact on recreational activities are considered in Section 5.7.1.

5.6.3 Beaches and water-based activities

During construction, it is anticipated that there may be some negative impacts to beach accesses surrounding the project area. This will impact on a range of community members who use the beaches in the area.

From land, the Frenchmans Bay beach access at La Pouse will be unaffected by the project construction. As noted previously, at Kurnell, three beach access points will be closed as a result of the closure of the Monument Track Footpath during construction. While alternative beach accesses already exist, this closure may result in members of the community being unable to access certain parts of the beach, limiting some recreational activities they enjoy.

Access and use of Botany Bay will also be impacted by the project's construction. A marine works exclusion zone of about 75-metres will be put in place surrounding the wharf footprints within the water. No public access will be possible within the buffer area outlined. This will be outlined with buoys denoting an exclusion area for non-construction related vessels. This will prevent users from being able to access this part of the Bay, and may impact on their enjoyment of the local area. However, this will take up only a small area of the wider Botany Bay, and will be temporary for the period of the project.

Overall, the socio-economic impacts associated with access to beaches and waterways in the SEIA study area during construction are anticipated to be low in magnitude and low in sensitivity – **resulting in a moderate-low negative socio-economic impact.**

The impacts as a result of this access on recreational activities associated with beaches and waterways are considered in Section 5.7.1.

5.6.4 Aboriginal social infrastructure

No formal social infrastructure associated with the local Aboriginal community will be directly impacted as a result of the construction phase.

More broadly, the Kamay Botany Bay National Park has cultural and historical significance for the Gweagal and Kameygal people of the Dharawal Nation (alternative names Tharawal and Turuwal). Various Aboriginal archaeological artefacts have been recorded within the study area particularly, midden, rock engravings and loose shells. This environment in itself makes up part of the Aboriginal social infrastructure. The construction of the project may result in some impacts to the character and biodiversity of the National Park, as well as the amenity and ability for members of the local Aboriginal community to enjoy the project area and its surroundings.

More specifically, a plaque commemorating The Timbery Reserve is also located within the project area and the construction of the project will result in restricted access to this area. The project team is working with the Timbery family and local

Aboriginal community to incorporate the existing Timbery reserve plaque into the design, and minimise any impacts as appropriate.

5.6.5 Utilities

The project is expected to have limited impacts upon utilities infrastructure and service provision during construction. As discussed in Chapter 5 of the EIS, the wharves would require additional utilities including water, electricity and telecommunication services.

At this concept design state, it is not expected that any changes to existing utilities is necessary.

Any disruptions to services due to utility adjustments would be discussed with key stakeholders and communities would be notified of outages in advance of works.

Overall, the socio-economic impacts associated with utilities in the SEIA study area during construction are anticipated to be negligible in magnitude and low in sensitivity – **resulting in a negligible socio-economic impact.**

5.7 Community values impacts

This section summarises the potential impacts of the project during construction on community values. This has been separated into five sections, to align with the types of socio-economic impacts described in the DPIE social impact guideline, including:

- Way of life, fears and aspirations
- Health and wellbeing
- Culture
- Decision making processes.

Community values impacts associated with permanent changes during operation are assessed in Section 6.5.

5.7.1 Way of life impacts

Way of life impacts include those elements which impact on peoples' ability to live, work and play. There is some cross-over with other topics discussed, including amenity and social and shared infrastructure. To avoid double counting, where relevant, these are cross-referenced.

The La Perouse and Kurnell areas are home to a number of communities, and used by a number of different groups. The project has the potential to impact on the way of life of these communities in a number of ways.

Recreational impacts

A key part of way of life within the SEIA study area is recreational use of the land within and surrounding the project area. This is identified across a range of community members, including local Aboriginal Communities, other local

residents, tourists and Sydney-based visitors to the area. During construction, it is anticipated that there may be some negative impacts to beach and water based recreational activities surrounding the project area. As noted previously, at Kurnell, three beach access points will be closed as a result of the closure of the Monument Track Footpath during construction. While alternative beach accesses already exist, this closure may result in members of the community being unable to access certain parts of the beach, limiting some recreational activities they enjoy.

Water-based access and recreational activities like swimming, diving, boating and fishing will also be impacted by the project's construction. The marine works exclusion zone surrounding the wharf footprints will result in areas of Botany Bay being inaccessible for water-based recreation. As outlined in Section 5.4.2, the underwater noise impacts are also expected to have an impact of recreational water-based activities – in particular diving, and fishing.

This will result in a minor socio-economic impact as recreational activities may be disrupted for some users. It is expected that many of these activities will be able to occur beyond the project area relatively unencumbered, but users may experience wider amenity impacts associated with noise and visual impacts (see Section 5.4). Snorkelling and diving may be impacted more than other recreational activities due to the disturbance of marine sediment and sediment plumes.

Residents and visitors who do not swim, fish or dive within Botany Bay, and whose recreational activities are more focused on terrestrial activities such as sightseeing, walking and cycling, may experience far smaller-scale impacts. However, amenity impacts associated with noise, landscape character and views from beaches and waterways may make them less attractive and in turn impact on people's enjoyment or willingness to undertake their usual recreational activities. Moreover, they may demotivate the community from gathering or using the public spaces surrounding the project site.

This will impact on ability to partake in recreational activities, but may in turn have impacts on the overall way of life and health and wellbeing of community members who particular value their ability to engage with natural environment in this area. It may result in people changing their daily routines, or seeking out new areas for outdoor recreation and activity.

Overall, it is anticipated that during construction the project will have a negative impact of moderate magnitude and moderate sensitivity in relation to way of life and recreation. This will result in an assumed **negative socio-economic impact of moderate significance**.

Traffic and parking

The ability to move around freely is important to way of life. The perception that construction will exacerbate local traffic is a concern for many within the community. For example, the community has raised concerns such as:

- *“I can see parking being a major problem but if that can be solved it is a great idea.”*

- *“The area surrounding the National Park is already congested and has narrow roadways.”*

The perceived lack of parking could deter people from visiting the project area for recreation or other purposes and reduce visitation numbers for the SEIA study area. In addition, it could impact on people’s way of life – making them add time to their journeys, and potentially causing stress and frustration when seeking to access recreational spaces and activities. However, it is anticipated that this perceived impact will be short-lived during construction. As such, overall, the perceived traffic impact during construction is assessed to be moderate in high and moderate in sensitivity – resulting an overall perceived **negative socio-economic impact of high-moderate significance**.

As highlighted in Section 5.5, the increase in traffic and decrease in parking associated with the project is in reality anticipated to be moderate-low.

5.7.2 Fears and aspirations impacts

The fears and aspirations of the various communities within the SEIA study area support assessment of the impact of the project’s construction on the values of particular importance to the community. It is noted that a number of these impacts are similar to the way of life impacts summarised in Section 5.7.1. In particular, the recreational values of the SEIA study are particularly important to the community, and concerns around existing parking, and the potential impacts from the project have been raised consistently by community members. These impacts have already been assessed in Section 5.5, 5.6 and 5.7.1. Connection to country and Aboriginal cultural values are also of significant importance to the community within the SEIA study area – these are addressed in Section 5.7.4.

In addition to these fears and aspirations, the community engagement activities have highlighted a key community value in relation to the ongoing protection of biodiversity and the natural environment within the project area and immediate surrounding in particular. Concerns raised include:

- *“I dive at Kurnell almost every weekend and can tell you that it is home to some unique and amazing wildlife...Any construction work on both sides of the bay are likely to have the same impact.”*
- *“What about environmental implications, especially given the endangered marine life there!”*
- *“The installation of a wharf and continued ferry crossing will...create wash that will spoil the idyllic usually calm waters that Kurnell is known for....”*
- *“Wildlife will cease to exist in the locality.”*

Opportunities to avoid and minimise impacts to biodiversity were considered during the early stages of the project through the options assessment and design development. The Biodiversity Development Assessment Report (Appendix I of the EIS) notes that there will be some clearing of a small area of native vegetation, which provides habitat for a range of different species. The scale of this clearing is considered largely negligible given the small scale. Loss of a small area of Kurnell Dune Forest (a threatened ecological community) is also not considered

to constitute a Serious or Irreversible Impact under legislation, and a third of this impact will be temporary for construction only. Some small direct impacts to foraging habitat for two species of bat, and breeding habitat for the Gang-gang Cockatoo are also anticipated – about half of which is temporary in nature and small scale. Some potential indirect impacts to biodiversity as a result of noise, vibration and lighting disturbance are anticipated, as well as the potential for vehicle strikes from construction traffic. However, these are not expected to be large in nature.

The Marine Biodiversity Assessment Report (Appendix H of the EIS) notes that marine biodiversity is likely to be moderately impacted during construction. In particular, the wharf construction, piling activities, vessel movements and anchoring (including the installation of the temporary causeway) is likely to result in the removal and damage of a threatened ecological community of Posidonia seagrass – a slow growing species which can take years to regenerate. Seagrass removal can also affect fish distribution – which will impact on recreational fishing opportunities, as well as being a habitat for threatened biodiversity such as White's Seahorse. At La Perouse, fewer biodiversity impacts are expected, although there are other species of seagrass (not threatened ecological communities) which may be impacted by construction in the immediate area – however this specific tends to recover more quickly.

As previously reported, the Marine Biodiversity Assessment Report (Appendix H of the EIS) has highlighted significant noise impacts during piling works. These have the potential to impact marine life, which may cause them distress and impact on their movements and activities.

Noting the importance of biodiversity to the community, it is possible that these impacts will have some resultant socio-economic impacts, as they compromise the values which the community hold dear. This may cause anxiety and distress to local community members who are passionate about their local environment. In particular, this may impact upon the local Aboriginal Community who have identified the natural environment to be a key feature of value for the local area. As such, the impacts to biodiversity are expected to result in a socio-economic impact during construction of moderate magnitude, and moderate sensitivity – resulting in a **moderate negative socio-economic impact** associated with biodiversity values.

5.7.3 Health and wellbeing

The temporary removal of the Monument Track Footpath, and removal of public open space at La Perouse Point will mean reduced community access to outdoor recreation walking and cycling opportunities. Similarly, there may be some short-term impacts to water-based physical activities such as swimming and kite surfing (see Section 5.7.1). Physical activity is a key factor in mental and physical health and wellbeing – and as such this reduction in access to physical recreation spaces has the potential to impact on residents or visitors who currently rely on these facilities. However, it is considered that there are a number of alternative sites, footpaths, waterways and parks that will enable the community to continue exercise during construction.

The noise, visual amenity and air quality impacts covered in Section 5.4 may also have some minor perceived and actual impacts to health and wellbeing, in the following ways:

- Noise impacts may disturb shift workers sleep schedules, or impact on business activities – causing stress to the resident and working population
- The combination of increased noise, air quality and landscape and visual impacts, as well as increased traffic, may cumulatively result increased stress and anxiety among residents.

Overall, health and wellbeing impacts during construction are assessed to be of low magnitude because of the alternate routes being available–, and low sensitivity resulting in a **low negative socio-economic impact** on health and wellbeing during construction.

The underwater noise impacts may also result on health and safety of underwater users, such as divers, as assessed in Section 5.4.2.

5.7.4 Culture impacts

The relationship between the project, and the Timbery Reserve and associated plaque are covered in Section 5.6.4.

The Aboriginal Cultural Heritage Assessment Report (Appendix E of the EIS) assesses the impacts to Aboriginal heritage archaeology. Largely any potential impacts to Aboriginal heritage would be avoided and minimised through the implementation of a Heritage Management Plan and associated management measures including a salvage program, visual expectations and monitoring during construction. The Aboriginal Cultural Heritage Assessment followed Transport for NSW's Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) where Aboriginal community representatives contributed and were involved throughout the assessment process.

A number of potential opportunities for involvement in the project have been identified through engagement with the local Aboriginal community for the project (summarised in Section 2.3). These include opportunities to contribute to the design of the wharves; participation of young people in the construction works; participation of Aboriginal majority-owned businesses in the construction works; and involvement of Gamay Land and Sea Rangers in monitoring of environmental impacts of construction works. As the project develops, opportunities for further community involvement in design and construction activities could be explored to maximise local engagement and inclusion in planning and decision-making processes.

It is noted that some of the impacts outlined in the other sections of this assessment may be experienced differently by the local Aboriginal Community. Where relevant this has been integrated into the assessment.

5.7.5 Decision making processes impacts

This section summarises the potential impacts of the project during construction on decision-making processes. It aligns with the DPE social impact assessment requirement to consider decision making processes.

The project is not anticipated to impact on existing decision-making systems in place. Through the proposed engagement approach (summarised in Chapter 6 of the EIS), the applicant seeks to achieve two-way discussion and develop a long-term relationship with the local community. The applicant has worked to engage with many different groups within the community and inform them of the impacts of the project, encourage input to the preparation of the EIS and to support the making of submissions regarding the EIS.

Following the exhibition period, Transport for NSW will continue to identify and manage issues of interest or concern to the community during the assessment and approval process and, if the project is approved, during its construction. The applicant recognises the importance of a legitimate community engagement process, and of support by a government policy framework, and acknowledges the concerns of all opponents in achieving a genuine dialogue. This echoes the sentiments raised during community consultation, which stressed the need for evidenced decision-making, including:

- *“A full and proper investigation of environmental impacts of the proposed Kurnell works needs to be undertaken.”*
- *“a properly planned and costed master plan for the area addressing the future growth, transport issues (including parking) and other impacts of the various changes being proposed to meet the actual needs of the area.”*

Overall, therefore, the project is anticipated to have **no socio-economic impacts** during construction on decision making systems in this regard.

It is noted that a small number of community members have voiced concern that the project is part of a bigger plan for development of a proposed Cruise Terminal in the area. While this is not associated with the project, there is potential for a perceived impact regarding a potential connection, and perceived secrecy in this matter, demonstrated by community consultation submissions such as:

- *“We have learnt you just can't take anything on face value, especially given the bitter battle over the proposed Cruise Terminal. Is there an ulterior (sic) motive?”*
- *“there must be ulterior motives, I do not trust the government and believe the councils are also being sucked in... it will encourage the Cruise terminal to be built.”*

Based on this, it is assessed that there may be a perceived impact of low magnitude, and low sensitivity, resulting in a **perceived low negative socio-economic impact** during construction on decision making systems.

6 Assessment of potential operational impacts

This section provides a summary of the potential socio-economic impacts anticipated as a result of the project during operation, having regard to the concept design and project description (Chapter 5 of the EIS), socio-economic baseline (Section 3 of this report) and other relevant information as part of the wider EIS. This section is structured to cover topics as introduced in Section 2.5, in accordance with practice note EIA-N05 for a ‘moderate’ assessment, having regard also to the DPE Social Impact Assessment Guideline (DPE, 2017).

Any mitigation, management or enhancement measures are introduced in Section 8, with residual impacts assessed in Section 9 of this report.

6.1 Property and land use impacts

This section summarises the potential socio-economic impacts of the project during operation on personal and property rights and land use. Socio-economic impacts associated with temporary changes during construction are assessed in Section 5.1.

There are **no socio-economic impacts** associated with property acquisition anticipated during operation. There will be no permanent changes to property ownership, nor permanent alterations to access as a result of the project. With regard to moorings, no further impact will be experienced during operation, over and above the permanent impact to mooring location summarised in Section 5.1.1.

Overall, the project is consistent with current and historic land use, noting there has previously been an operational ferry between La Perouse and Kurnell. It is also in line with policy aspirations, including the Kurnell Master Plan which seeks to reinstate a ferry connection between Kurnell and La Perouse (refer to Section 3.1). The policy aspirations reflect a key community value of connectivity between La Perouse and Kurnell – and an aspiration to reinstate the history ferry connection. Alignment with this aspiration demonstrates a clear support from the project for sustaining and celebrating community values for this place.

As such, it is considered that the project will provide a positive impact in supporting achievement of land use and strategic aspirations for the area – this is assessed to be a **positive socio-economic impact** for the SEIA study area during operation. Further detail on the positive impact associated with cross-bay connectivity is provided in Section 6.7.2.

6.2 Socio-demographic impacts

This section summarises the potential impacts of the project during operation on community composition and demographics. Impacts associated within the project construction are assessed in Section 5.2.

The project is not expected to have any significant operational impacts to the socio-demographic profile of the SEIA study area, nor residential communities within Kurnell and La Perouse; this includes gender split, age distribution,

household composition, sense of place, character or cohesion. The land uses proposed do not involve residential uses, and are not typically associated with an increase or decrease in population size or change in the demographic profile.

The project is expected to create a small number of full-time employment opportunities in operation of the ferry service. Given the small-scale of this employment generation, it is expected this will be catered for within the existing community and is unlikely to result in employees moving to the SEIA study area. The economic impacts of this employment are assessed in Section 6.3.

Beyond this, it is not expected that the project will act to catalyse significant growth in the SEIA study area. However, it is likely that it will act to support already anticipated population growth through improved access and attractiveness of the area.

It is not anticipated that the operational project will particularly impact on the demographic composition of any of identified priority communities (e.g. elderly communities) that may be more vulnerable to project impacts. The improved connectivity that it will provide, however, will support those within the community that are more elderly, or of lower socio-economic means, in providing an alternative mode of travel to access La Perouse and/or Kurnell. Potential impacts to these groups regarding amenity and community values are explored in Sections 6.4 and 6.5 of this Report.

The SEIA study area is also home to a significant proportion of people who identify as Aboriginal. This is particularly the case in La Perouse. The size and make up of these communities is unlikely to be impacted once the ferry is operational. The increased connectivity, may result in more of the community moving to the SEIA study area. However, this would be very small-scale impact. Broader impacts on the existing local Aboriginal community regarding amenity, cultural values and other socio-economic impacts are integrated into the following sections.

Overall, the socio-economic impacts of the operational project on socio-demographic composition are assessed to be **negligible**.

As a results of the project, residents on either side of Botany Bay will be better connected, which will enhance community cohesion within the SEIA study area. This is assessed in Section 6.7.

6.3 Economic impacts

This section summarises the potential impacts of the project upon the economy, economic profile and businesses within the SEIA study area and wider region during operation. Economic impacts during construction are assessed in Section 5.3.

6.3.1 Employment

The project is expected to generate a small positive impact to employment, as the ferry service would create some full-time employment opportunities. This

includes a minimum of two certified crew and potentially one-two more crew members for safe operations. Relative to overall employment in the SEIA study area, this employment is very small in scale.

However, this would provide job opportunities for the existing and projected population. In particular, there may be opportunities to explore employment focused towards the local Aboriginal community, to enable their continued stewardship of the connection between La Perouse and Kurnell.

As noted during construction, higher employment rates have been shown to help to reduce financial hardship, stress and social isolation, and improve access to services and emotional health and wellbeing. More local jobs could also enhance people's way of life by reducing the need to commute to other employment areas located further away, which would provide more time for other activities such as recreation. This direct employment from project operation is considered, therefore to be a **positive socio-economic impact** to employment within the SEIA study area.

As a results of the project, residents on either side of Botany Bay will be better connected. This may open further new employment opportunities for residents on each side of the bay where it was previously not possible due to poor transport network connections.

It is estimated that as a result of the project, there would be 149,600 passengers using the service annually, which would lead an increase in visitation from tourists to Kamay Botany Bay National Park. This may also result in longer term benefits for local businesses, providing a catalyst for new business opportunities to support tourism uses (eg retail, restaurants and cafes). These businesses would contribute to local employment opportunities and could lead to a higher employment rate, and more diverse opportunities for the local community.

This indirect employment from project operation is considered a **positive socio-economic impact** to employment within the SEIA study area.

6.3.2 Industry

The operation of the project is expected to result in a positive impact for the tourism industry. The Kamay Botany Bay National Park receives approximately 800,000 visitors annually⁵ - somewhat lower than other National Parks in NSW. A water transport connection between La Perouse and Kurnell, and associated wharves will create new commercial and recreational opportunities, improve accessibility and enhance the arrival experience for visitors accessing the National Park. Current estimates forecast approximately 149,600 passengers would use the ferry service by 2036. This will likely lead to a rise in visitors to the area, resulting in a boost to tourism in the SEIA study area. The value added by the ferry and improved access will benefit the tourism industry and allow for additional opportunities to arise within the surrounding area.

⁵ NSW Department of Planning, Industry and Environment, Kamay Botany Bay National Park Kurnell Master Plan, 2019.

In addition, commercial vessels will have new berthing locations once the wharves are complete. This will allow for more business opportunities and promote additional waterborne visitor economy services such as boat tours, cruises and charters. This will reinforce the character of the SEIA study area as a key focus for tourism in Sydney. It will also provide opportunities to support local business and employment, which will not only generate employment benefits (as set out previously), but will also result in improved financial security for business owners in providing a strong pipeline of potential work – which will in turn reduce housing stress and hardship, and support economic health and wellbeing of communities.

Overall, the impacts to the tourism industry in the SEIA study area are therefore a **positive socio-economic impact** within the SEIA study area.

Noting the national importance of La Perouse and Kurnell in the tourism economy, these impacts will also play a role beyond the SEIA study area. New attractions and offerings in the SEIA study area may act as attractors for domestic tourism from wider NSW or other states to Greater Sydney, as well as future international visitors. This will have benefits for the tourism industry as a whole, acting to provide a strong offering for tourism in the area, providing security of opportunity. Overall, the impacts to the tourism industry in the SEIA study area are therefore a **low positive socio-economic impact** within Greater Sydney.

6.3.3 Existing businesses

The businesses within the SEIA study area, and more specifically within Kurnell and La Perouse, are expected to experience positive impacts as a result of the project, owing to the increased patronage in the area. The connection between Kurnell and La Perouse is expected to incentivise visitation to these areas and is also likely to extend visitation and dwell times with enhanced public realm and connections. This will increase footfall and therefore expenditure to businesses within the SEIA study area, particularly retail and restaurants and cafés which represent the business closest to the project. This is expected to have a positive economic impact on the SEIA study area and could improve community wellbeing in providing financial security for business owners and their employees, as well as improving the environment for business owners and customers. In addition, the ability for commercial operators to use the wharves (as discussed in the previous section) will support business opportunities.

This impact is assessed to be a **positive socio-economic impact** to local businesses during operation within the SEIA study area.

The ferry operation is not expected to impact commercial shipping operations. The ferries will need to take care when crossing the shipping channel to ensure that they do not obstruct deep draft vessels as they have poor manoeuvrability. Caltex has highlighted this as their greatest concern. The Caltex vessels will not travel nearby the wharves as the waters are too shallow and the ferries will not be travelling constantly throughout the day, as such this potential conflict would be avoided. Overall, therefore, this impact is assessed to be negligible, and of moderate sensitivity during operation – resulting in a **negligible socio-economic impact**.

6.4 Amenity impacts

This section summarises the potential impacts of the project during operation on the amenity within the SEIA study area. Amenity impacts during construction are assessed in Section 5.4.

6.4.1 Visual impacts

This section summarises the potential impacts of the project during operation on the landscape visual amenity within the SEIA study area.

Landscape character

Based on findings of the Landscape Character and Visual Impact Assessment Report (Appendix M of the EIS), the project is anticipated to have some minor negative socio-economic impacts associated with landscape character, due to the introduction of greater structural components to the project area. The new ferry wharf structures will alter the landscape character at both La Perouse and Kurnell, and as such how people engage with and value the project area. However, due to the project being a ‘reinstatement’ of the wharf structures and the ‘light touch’ design the Landscape Character and Visual Impact Assessment Report (Appendix M of the EIS) finds that the project is not considered to be incongruous with the immediate surrounding landscape character.

Furthermore, a series of measures have been embedded within the concept design for the project to minimise any landscape and visual impacts. This includes integrated bespoke seating and planting to define the arrival point and gateway to the wharves, revegetation using native species, and a slender architectural design and blended material palette to increase visual permeability.

At La Perouse in particular, the concept design is expected to have a beneficial impact on the character within the Kamay Botany Bay National Park as its design aims to support and enhance the highly visited headland’s current uses and pedestrian movement paths, whilst allowing for an additional programmed space for ‘looking out’ across La Perouse Point and Botany Bay. The design incorporates a greater footprint for the wharf tie-in, particularly the proposed landscape and urban furniture, and the design works with the natural contours of the headland and will replace one standard bench seat with more integrated, bespoke seating units and planters. Overall, this is expected to enhance the local environment and result in minor positive socio-economic impacts, as residents, workers and visitors alike are better able to enjoy the space. At Kurnell too, the design of the project responds to the historical importance of the area. Engagement has also taken place, and continues with the local community, and particularly the local Aboriginal Community to ensure that values and features of significance are incorporated into the design – including the Timbery Reserve plaque, native vegetation and elements of the design features.

Therefore, while the new structures will change existing character, sensitive design into the surrounding landscape and character, will minimise impacts to the local community – ensuring that the values of local character and protected environment and cultural heritage are celebrated and sustained. There will be

some changes to character associated with increased vehicle, boat and pedestrian traffic, and increase in built structures.

Balancing the positive and negative landscape impacts, it is assessed that there may be an impact of low magnitude, and low sensitivity, resulting in **a low negative socio-economic impact** on landscape and character during operation.

Views

The project is anticipated to have some moderate negative socio-economic impacts associated with views at viewpoints within relatively close proximity to the project area. This is largely due to the sensitivity of receptors and locations within the area adjacent to the project area.

Based on findings of the Landscape Character and Visual Impact Assessment Report (Appendix M of the EIS), at La Perouse, views from La Perouse Museum and Frenchmans Beach are anticipated to be most highly impacted during operation. This is primarily due to the direct views towards the ferry vessel berthing components of the project. The wharf extends into Botany Bay and, whilst not considered completely incongruous, the structure is anticipated to become a dominant focal point of the existing views experienced. Additionally, increased motorised marine vehicular traffic and extended duration at which the vessels will spend within the viewpoints' frame of view will essentially change the overall balance of the existing views. Anzac Parade will also experience visual impacts, but the incorporated landscaping and wharf tie-in designs will reduce these to some extent.

At Kurnell, Captain Cook's Landing Place and Prince Charles Parade, and to a slightly lesser extent from parts of Monument Track are anticipated to experience the highest visual impact for operation. Similar to La Perouse, this is due to direct views towards the introduced wharf structural components, and the existing high-quality aesthetic view compositions. The prominent avenue of large Norfolk Island Pine trees along the coastline will obstruct direct views from some viewpoints, minimising impacts.

Some people may feel positive towards the views which the wharves create, whilst otherwise may consider this a negative impact. If the latter, this change to the character and views of an area of value to the community may result in some anxiety and discomfort.

Overall, socio-economic impacts associated with changes to views in the immediate vicinity of the project area during operation are anticipated to be low in magnitude and in moderate in sensitivity – **resulting in a low-moderate negative socio-economic impact.**

In addition to these impacts to existing views, there is the potential for the project to create new views. The concept design has sought to maximise key views out from La Perouse point, Frenchmans Bay and the wharf itself by the direction and placement of the seating within the integrated planters. The landscape tie-in at La Perouse provides a lookout area for the entire La Perouse Point headland and invites all visitors of the headland to stop and experience the vista and the Botany Bay environs. At Kurnell, also, direct views towards the surrounding heritage and

cultural monuments including Captain Cooks Landing Place, the Eyes of the Land and Water sculpture are maintained and promoted through the low-level planting palette and the seating provisions. This creates new opportunities for residents, visitors and other users to experience and enjoy the project areas, and engage and connect with the heritage, cultural and landscape value of the area. This will celebrate local community values, and improve community connections with their place. Overall, socio-economic impacts associated with new views in the immediate vicinity of the project area during operation are anticipated to be a **positive socio-economic impact**.

Within the wider SEIA study area, socio-economic impacts associated with views are anticipated to be minimal in the Landscape Character and Visual Impact Assessment Report (Appendix M of the EIS). Views from identified viewpoints at residential properties at Phillip Bay, from Molineaux Point Lookout at Port Botany, and the Grand Parade at Ramsgate Beach are unlikely to experience any significant impacts, as the ferry structures will be perceptible but from a distance, and balanced and in keeping with surrounding character. Similarly, while ferry vessels would be visible, this is considered characteristic in views. These minor impacts are not anticipated to impact significantly on the way in which communities interact with, and value local views in the wider SEIA. However, they may impact to a small degree upon local community members ability to engage with features of the landscape and views that they value as of importance, and contribute to discomfort with the local surrounding. Overall, socio-economic impacts associated with changes to views in the wider SEIA study area during operation are anticipated to be low in magnitude and low in sensitivity – **resulting in a low negative socio-economic impact**.

6.4.2 Noise impacts

This section summarises the potential socio-economic impacts of the project during operation as a result of noise. It covers terrestrial and underwater noise impacts. The project is expected to have minimal socio-economic impacts associated with noise and vibration during operation.

The primary operational noise sources are associated with the berthing and departure of ferries (including use of ferry horns) and associated pedestrians using the service. The Surface Noise and Vibration Impact Assessment Report (Appendix O of the EIS) indicates that the project's operation is predicted to produce sound well below the target level for both the noise impact criteria. One exception to this is for the Eastern Zone Gujaga Aboriginal Childcare Centre, where exceedances of up to 6 dB exceedance have been predicted with enhanced meteorological conditions assumed. This is addressed in Section 6.6.4.

The Underwater Noise Assessment (Appendix P of the EIS) assesses that ferry vessels will generate above threshold noise, but that this would not be significant in the context of the extensive existing commercial shipping movements to/from Port Botany. Similarly, noise from additional recreational vessels accessing the area to use the wharves (which would be smaller and, typically, quieter than ferries) would not be significant compared to the existing shipping traffic. When the ferry is idling at the wharf, there is potential that direct noise from ferry

vessels could temporarily scare away the fish. However advice from noise consultants suggests that fish are expected to quickly return when the ferry leaves, and as such no impacts to recreational fishing, and therefore valued uses of the area for the local community are anticipated.

No significant vibration intensive activities are anticipated as part of the operation of the project.

It is not anticipated that this would result in any impacts to community health and wellbeing, way of life or any other socio-economic factors. Overall, operational noise vibration impacts at surrounding receivers and sensitive structures are expected to be negligible in magnitude and moderate sensitivity, resulting in **negligible socio-economic impact**.

6.4.3 Air quality impacts

This section summarises the potential socio-economic impacts of the project during operation in relation to air quality.

The project is unlikely to have any significant socio-economic impacts associated with air quality during operation. The Air Quality Assessment Report (Appendix V of the EIS) for the project found that the project can operate without causing any significant air quality impact to the sensitive receivers at or beyond the project boundary. This means the predicted contribution to emissions is small and would not result in any discernible or measurable impact. The ferry emissions will be highest when idling at the wharf, but this will be temporary, and still some distance from the closest sensitive receivers. Pollution drops off rapidly from the source so it is unlikely that pollutants and odour from idling vessels would impact air quality at the sensitive receivers. As such, no socio-economic impacts are anticipated associated with this, including impacts to health and wellbeing or community way of life.

Overall, therefore socio-economic impacts associated with changes to air quality during operation are anticipated to be negligible in magnitude and low in sensitivity – **resulting in a negligible socio-economic impact**.

6.5 Access and connectivity impacts

This section summarises the potential impacts of the project during operation on transport access and connectivity.

6.5.1 Traffic and congestion

As discussed in the Landside Traffic and Transport Assessment Report (Appendix K of the EIS), the expected passenger numbers for a design year of 2036 is 149,600 annually. The results show there would be capacity at each intersection to accommodate additional private vehicle trips associated with the project. The level of service rating would remain unchanged at A (very good) for the nearest intersections to the project. This is unlikely, therefore, to impact upon the communities access and connectivity within the local area, and not anticipated to impact on way of life or health and wellbeing in the community. The slight

increase in traffic is also unlikely to cause significant delays to journey times travelling into and out of the project area, disturb routines or cause substantial annoyance.

Overall, therefore socio-economic impacts associated with changes to traffic and congestion in the wider SEIA study area during operation are anticipated to be low in magnitude and low in sensitivity – **resulting in a low negative socio-economic impact.**

It is noted that traffic and congestion are a major concern within the local community and there is potential for perceived impacts in this area. This are addressed in Section 6.7.2.

6.5.2 Alternative travel modes

According to the Landside Traffic and Transport Assessment Report (Appendix K of the EIS), reliance on private vehicle use to access the project area is high at present. The transport strategy for this project aims to encourage a mode shift from private vehicle to walking, cycling and public transport use.

The new connection provided from the ferry will promote alternate routes and methods of transport. As mentioned in Section 3.2.5, the existing road network takes 40 to 90 minutes via private vehicle and even longer on public transport. The new ferry will significantly decrease travel times between Kurnell and La Perouse, and provide a viable public transport option for residents or visitors to the SEIA study area. In addition, the project coincides with other wider network upgrade to the public transport network, and the ferry service will therefore play a key role in contributing to a wider public transport network.

The ferry will not only be an alternative mode of transport, but will also further support active transport options, through public realm and connectivity enhancements around the wharf areas in both La Perouse and Kurnell. This will provide additional transport options and improve way of life for patrons and the local community. The transport assessment showed that up to 21 trips of La Perouse residents may switch to walking rather than driving, and predicts an increase in cycling and public transport usage also.

This support for public and active transport provision aligns with and supports the key community values around sustainability and connectivity within the SEIA study area. It also supports equitable access for the community by providing a range of affordable transport alternatives.

Overall, therefore socio-economic impacts associated with provision of alternative travel modes in the wider SEIA study area during operation are anticipated to be a **positive socio-economic impact.** The impact of enhanced connectivity more generally are assessed in Section 6.7.

There are members of the community who perceive that the project will be beneficial in decreasing surrounding congestion and increasing public transport usage. Other consultation outputs suggest that there is a significant concern regarding congestion from the project, and the impacts this might have on community way of life. This perceived impact is addressed in Section 6.7.2.

6.5.3 Parking

The project would provide additional car parking spaces at La Perouse and car parking will be provided within the National Park at Kurnell as part of the wider National Park upgrades. Based on the demand analysis in the Landside Traffic and Transport Assessment Report (Appendix K of the EIS), the proposed car parking would meet the demand from the operation of the wharves, whilst acknowledging that there are existing parking issues at each site on busy fine-weather days. The project would not resolve these existing parking issues.

With the addition of car parking spaces based on the demand analysis, the parking situation is not anticipated to improve or worsen, overall socio-economic impacts associated with increased parking in the wider SEIA study area during operation are anticipated to be low in magnitude and high in sensitivity – **resulting in a moderate socio-economic impact.**

Consultation and engagement with the local community suggests that there is a significant concern regarding parking provision from the project, and the impacts this might have on community way of life. This perceived impact is addressed in Section 6.7.2.

6.5.4 Accessibility and emergency services

The design for the wharves is fully *Disability Discrimination Act 1992* (DDA) compliant and will enable enhanced access for people with disabilities to Botany Bay and the attraction and places at Kurnell and La Perouse. This will act to provide positive social impacts associated with equity of access for people of all abilities.

It is not expected that the construction of the project will result in any changes to emergency service provision or access routes. An emergency services plan will be required to ensure correct processes are in place to support project operation and protect the health and safety of passengers and operators.

Noting the provision of access for all members of the community, overall, therefore socio-economic impacts associated with accessibility in the wider SEIA study area during operation are anticipated to be **a positive socio-economic impact.**

6.6 Social and shared infrastructure impacts

This section summarises the potential socio-economic impacts of the project during operation on social infrastructure within the SEIA study area.

6.6.1 Community infrastructure

The operation of the ferry will have **no direct socio-economic impacts** for the community infrastructure within the SEIA study area.

More broadly, the ferry will provide a new method of travel, and improve access to community facilities for members of the local community, and for Greater

Sydney. It will also provide a new way to view and experience the site and its immediate area, including the bay, that has not been possible for over 40 years. As a result, this will increase access to important heritage assets and valued sites at both Kurnell and La Perouse. This will provide social benefits through the potential for educational opportunities in improving access to heritage and other visitor facilities, way-of-life benefits in improving access to recreational assets such as museums and the National Park and improving community cohesion in providing a key connection across the Botany Bay.

Overall, therefore socio-economic impacts associated with access to social infrastructure in the direct study area during operation are anticipated to be a **positive socio-economic impact**.

6.6.2 Public realm and open space

The operation of the ferry will not have any direct impacts on existing public realm and open space; and it will support continued community access to all public realm within the SEIA study area. The project will also introduce public realm enhancements, particularly at tie-ins within the wharves, including new seating and landscape in keeping with the character. This will provide further amenity for the community to use and enjoy the SEIA study area. It will contribute to an improved quality of life for visitors and the local community, in providing a greater sense-of-place, and ability to engage with the natural and built environment. For local residents also, this will support a feeling of local identity and pride in community spaces.

More broadly, the operational ferry will enable more users (visitors, workers, residents etc.) to access the public realm and open space within the SEIA study area. This will improve quality of life and amenity for these groups. Connectivity to footpaths, trails, open space and the Kamay Botany Bay National Park will be improved with the new cross-bay ferry connection, with improved ease of access to support health, wellbeing, day to day activities and recreational values within the SEIA study area.

The ferry operation may cause impacts upon maintenance needs due to the greater patronage, the increased visitation could also lead to littering or trampling of vegetation if the pathways are inadequate or the desire lines change with the new wharves. However, this is considered to be easily manageable through the operational maintenance of the project.

Overall, socio-economic impacts associated with public realm in the SEIA study area are anticipated to be low in magnitude and low in sensitivity – **resulting in a positive socio-economic impact**.

6.6.3 Beaches and water-based activities

The ferry operation will not result in any negative operational impacts to beach access – which will be returned to existing following construction. An assessment of wave action associated with the ferry vessel movements has also indicated that ferry vessel waves would dissipate before reaching the shore, and as such no significant impacts to beach users are expected.

The ferry operation may result in more people coming to the beaches in the project area, which may cause concern regarding pressure on infrastructure from the local, while also generating potential for businesses and local economic opportunities. Further detail on the potential impacts of increased visitors are discussed in Section 6.7.

The project will also provide new waterway access points for commercial and recreational purposes, as well as facilitating fishing at all points along the wharves. This will provide a significant benefits for the community with regard to access to beach and water-based recreational waterways. This will enhance the existing use of the area, and act to cement the identity and reputation of the area for water-based activities. Connectivity with the water has been identified as a major value for the community, and the continued and improved ability to use the jetty for recreational and commercial water-based activities will act to support this value, and improve local quality of life through interaction with the natural environment.

Overall, the socio-economic impacts associated with access to beaches and waterways in the SEIA study area during operation are anticipated to a **positive socio-economic impact**.

The impacts as a result of this access on recreational activities associated with beaches and waterways are considered in Section 5.7.1.

6.6.4 Aboriginal social infrastructure

No formal social infrastructure associated with the local Aboriginal community will be directly impacted as a result of the construction phase. The noise assessment in Appendix O of the EIS predicts that the operational of the ferry may exceed noise management levels at the Eastern Zone Gujaga Aboriginal Childcare Centre. While this is a key piece of social infrastructure for the local Aboriginal community, the impacts are not expected to be perceptible to humans, and as such no impacts to human health, disturbance or nuisance are expected as a result of this impact. Impacts to this facility are assessed to be low in magnitude and low in sensitivity during operation, resulting in a **low negative socio-economic impact**.

More broadly, the Kamay Botany Bay National Park has cultural and historical significance for the Gweagal and Kameygal people of the Dharawal Nation (alternative names Tharawal and Turuwal). The improved access to the National Park and areas of cultural significance provides a positive impact for access to Aboriginal social infrastructure. Broader cultural impacts are assessed in Section 6.7.4.

Timberly Reserve is also located within the project area. The project team is working with the Timberly family and local Aboriginal community to incorporate the existing Timberly reserve plaque into the design, and minimise any impacts as appropriate.

6.6.5 Utilities

Once operational, there would be **no on-going socio-economic impact** on public utilities and services. There may be occasional instances where public utilities may be impacted through future upgrades or maintenance work, although these are expected to be rare and minimal in consequence.

6.7 Community values

This section summarises the potential impacts of the project during operation community values. This has been separated into five sections, to align with the types of socio-economic impacts described in the DPE social impact guideline, including:

- Way of life
- Health and wellbeing
- Culture
- Fears and aspirations
- Decision making processes.

Community values impacts associated with temporary changes during construction are assessed in Section 5.5.

6.7.1 Way of life

Way of life impacts include those elements which impact on the communities' ability to live, work and play. There is some cross-over with other topics discussed, including amenity and social and shared infrastructure. To avoid double counting, where relevant, these are cross-referenced.

The La Perouse and Kurnell areas are home to a number of communities and used by a number of different groups. The project has the potential to impact on the way of life of these communities in a number of ways.

Liveability

Operation of the project is likely to have sustained, positive socio-economic impacts throughout its life on liveability. Efforts have been made throughout the planning stage and through engagement activities to reduce any possible impacts to community character. The project has been designed to integrate with the existing history and cultural significance of the area, and opportunities to focus employment opportunities in the local community will be prioritised. Noting the many factors which contribute to liveability, including sense-of-place and access to employment, among others, these impacts support liveability within the SEIA study area. Overall, the socio-economic impacts associated with liveability in the SEIA study area are anticipated to be **a positive socio-economic impact**.

Recreation

The ferry operation is expected to result in positive impacts to recreational activities

The wharves would provide fishing platforms and will accommodate recreational berths which have been designed to cater for commercial and recreational vessels typically between two-metres and six-metres in length and no more than 20-metres in length. These berths can be utilised by the public and will result in a positive way of life impact for the community, commercial water bases activities and recreational fishing. This is well supported by the community who fish in this area at present, and have used the project area for fishing for some time:

“There were always people fishing from it. As a small child walking on it, the gaps between the huge wooden planks seemed enormous. You could lay down and watch the waves rolling under you, and the fish in it’s shadow gliding by.”

Overall, the socio-economic impacts associated with this improved recreational opportunity are anticipated to be **a positive socio-economic impact**.

The ferry route and wharf may result in a minor impact to water-based activities like swimming, snorkelling, diving etc. These activities will be managed along the ferry path and underneath the wharf. While this will limit areas of access, this is only a small portion of the wider Botany Bay and the impact is expected to be relatively contained in nature.

There is also potential for the project to increase conflict between water vessels and users. This might include swimmers, divers, anglers, and / or commercial and recreational boats with ferry vessels. This was raised by a small number of the community also as a possible concern, such as *“Divers and boats don’t generally mix well. What happens when a diver gets into trouble and surfaces into a ferry or drifts into the path of a ferry after surfacing?”*

To minimise this conflict, one side of the wharf will be strictly for ferry vessels only; the other side will be for other commercial/recreational vessels which will support segregation and avoids conflict. The operation wharves will also restrict recreational use in and around the wharf for safety reasons.

Overall, the socio-economic impacts associated with these conflicts are anticipated to be low in magnitude and high in sensitivity – **resulting in a moderate negative socio-economic impact**.

6.7.2 Fears and aspirations

This section of the report addresses the population’s additional values about the future of their community. The community engagement activities have highlighted a number of potential fears and aspirations.

Cross-bay connectivity

A desire for greater connectivity between La Perouse and Kurnell is a key community value – articulated in a number of strategic planning documents and

reinforced through community consultation. Key comments from the community included:

- *“I would love to be able to hop on a nearby ferry and visit Kamay NP more often on weekends or during the week, and to show this beautiful area to friends or family visiting without the quite long drive/detour around Botany Bay.”*
- *“Personally, I would love a ferry to Kurnell. Like having Kamay Botany Bay NP on your doorstep.”*
- *“This would be one of the most amazing journeys made on a ferry, in the world. I say we should do it, and encourage more visitors to bask in the beauty of Botany Bay”*

Some community members did query the rationale for a ferry connection in this location, noting a need for improved investment in land-based transport connections, and links to other key centres rather than across Botany Bay.

- *“There is no rationale for this project.”*
- *“Other than providing a shorter commute for Kurnell residents, what is the benefit for Randwick council citizens?”*
- *“Why try to bring back something that has not and is not needed?”*

While this is noted, there are considered to be a number of benefits of this increased connectivity, including:

- Reduction in Long journey times between the two locations for those who do wish to travel (see Section 6.5)
- Reinstatement of an historic connection with key tourism and heritage value (see Section 6.6)
- Aboriginal connection to country (see Section 6.7.4)
- The potential to attract greater visitor numbers to the Kamay Botany Bay National Park, as well as investment in tourism and visitor experience market opportunities. This is reinforced by the new infrastructure to support the waterborne economy (Section 6.3).

Overall, therefore, it is considered that the project will result in improved connectivity resulting in a **positive socio-economic impact**.

Development opportunities

Stakeholders have also expressed mixed views regarding the potential impacts of the project upon the local area with regard to its role as a catalyst for change or growth.

For some, there is a concern that the project will make the project area too easily accessible – resulting in development pressures and impacts to local character. There is furthermore a concern that the project and associated development will result in increased pressure on what are perceived to be already stretched local services. This may cause stress and anxiety among local community members.

There is a perception among stakeholders that:

- *“Developers will immediately seek to influence the rezoning of the area...Local community will have to start another battle against the developers and the State.”*
- *“A ferry service will completely overrun the area. There is only so much development you can engage in before you completely ruin an area with too much influx of people.”*

For others, there is a perceived positive impact associated with the same possible outcome, and the resultant employment and business opportunities associated with increased visitors and footfall in the SEIA study area. In particular, one response to community consultation suggested a view that: *“the ferries could be a catalyst for a revival of the Bay as a destination for all people to enjoy.”*

As discussed in Section 6.2 and 6.3 there is potential for the project to result in some increased employment and economic opportunities for the local communities, and a range of potential economic benefits within the SEIA study area, as well as the wider Sydney region. However, it is not anticipated that this project will result in significant urban development – noting current land use zoning and strategic planning documents do not suggest an aspiration for significant growth in the SEIA study area.

As such, it is considered that there is potential for impacts associated with a perceived increase in urban development from the project, resulting in both a **perceived positive socio-economic impact** and a **perceived low-moderate negative socio-economic impact**. The mixed views on this may also contribute to community cohesion challenges in the area.

Infrastructure and parking pressures

Beyond development pressures, fears have also been expressed that the project will result in increased visitors, and as such pressures to existing amenity spaces (including beaches, boat ramps and fishing areas), and a change to local character away from the existing community, and towards visitors and non-locals.

Examples include:

- *“I believe more thought for amenity/comfort of the families who live here needs to be considered”*
- *“Kurnell is not equipped to deal with greater tourism nor is La Perouse. How about a focus on upgrading the already lacking facilities in these areas such as toilets.”*
- *Kamay National Park in Kurnell is overcrowded by visitors. The gates are regularly closed on Sundays and the surrounding roads cannot cope.*

In particular, the community has expressed significant concern regarding transport in the SEIA study area, and the potential operational impacts of the project. As noted in Section 6.5, the project will provide additional car parking facilities within the SEIA study area. According to the Landside Traffic and Transport Assessment Report (Appendix K of the EIS), the project is not anticipated to

result in any negative impacts to parking provision, nor congestion at La Perouse or Kurnell.

However, the project is not expected to improve on existing conditions, which are already perceived to be challenging. As such, there is potential that community members could perceive an increase in traffic and parking challenges as a result of the project. This is reinforced by the comments made during consultation. Many believe that parking is already above capacity and that additional visitors will further exacerbate issues of parking and local congestion. A number of community members also raised safety concerns associated with increased vehicle traffic on surrounding roads. The lack of public transport access or frequency throughout the study area was another major concern held by the community, and potential for this to experience pressure from increased patronage. Key comments included:

- *“I like the idea of the ferry but agree with other posters that infrastructure will be a major issue as it is already very busy at La Perouse at the weekends and very difficult to find a park.”*
- *“Too many visitors already park in quiet residential streets on the weekends. It ruins the whole atmosphere.”*
- *“Another major concern is the lack of public transport, plus lack of parking on the La Perouse side.”*

It is noted that there are also some members of the community who perceive that the project may result in reduced congestion, by diverting some trips to cars. While the Transport Assessment does not support this assumption, some examples include:

- *“Reduced congestion and use of roads can only be a positive.”*
- *“This potential link would provide a great opportunity for day trips without the need for a car.”*
- *“If this ALL goes ahead everyone will benefit, e.g. traffic going to and from City would ease congestion heading the now normal way. Kurnell would prosper, residents, tourists and quicker access to City.”*

Overall, it would appear the community sentiment is more focused on concern regarding existing traffic and parking. As a result of this, a perceived negative impact associated with transport and parking is anticipated, of high magnitude and high sensitivity – resulting in a **high negative socio-economic impact** within La Perouse and Kurnell.

Biodiversity

As introduced in Section 5.7, environmental impacts have been raised as a large concern for the community during both construction and operation. While this is particularly during construction, it is noted that the operation of the ferry will result in impacts to threatened ecological communities of seagrass. As per the Marine Biodiversity Assessment Report (Appendix H of the EIS), the seagrass which was impacted during construction surrounding the wharf is unlikely to recover and grow back due to shading from the wharves.

Environmental outcomes have been prioritised throughout the options assessment phase of the project. This means biodiversity has been protected and impacts have been mitigated within the design as much as possible.

The operational phase impacts associated with flooding are expected to be minimal. Minor increases to impermeable areas and water level are not likely to have a material impact on surface water flows and flooding, or to contribute to an increase in pollutant loads entering the water system. All flooding impacts that people will experience are considered to be negligible in nature.

Noting the importance of biodiversity to the community, it is possible that these impacts will have some resultant socio-economic impacts, as they compromise the values which the community deem important – causing potential discomfort and anxiety to community members. As such, the impacts to biodiversity are expected to be result in a socio-economic impact of low magnitude, and moderate sensitivity – resulting in a **moderate-low negative socio-economic impact** associated with biodiversity values.

Views and vistas

Fear of negative impacts to outlooks and views is a concern that many members of the community have noted. This is assessed in Sections 6.4.1 and 6.7.3.

6.7.3 Health and wellbeing impacts

There are not anticipated to be any health and wellbeing impacts associated with noise or air quality during operation of the project, reflective of the negligible impacts summarised in Section 6.4.3 and 6.4.4.

The project is expected to enhance access to the Kamay Botany Bay National Park and associated outdoor recreation opportunities – including walking and cycling for residents and visitors to La Perouse. In addition, it will improve access to local beaches for the wider Sydney community. This is anticipated to have a long-term positive impact on the health and wellbeing of not only the SEIA study area, but Greater Sydney region – in terms of increased physical activity, access to nature and greater community interaction. This social benefit will come from the connection between access to recreation and open space, and improved physical and mental wellbeing. This desire to see the other side of the bay is shared among many members of the community, as indicated in the consultation submissions including:

- *“We always look at Kurnell I’m the other side of the bay and wish we could just easily get there for a bike ride or a nice walk!”*
- *“Would love to see ferries in Botany Bay. Anything that gets people out of their cars is to the benefit of everyone.”*

Additionally the wharf will provide shelter for shading and when weather conditions are poor, this will ensure health and wellbeing is protected for patrons and visitors.

Overall, the health and wellbeing impacts of the operational project are assessed to be a **positive socio-economic impact** on health and wellbeing within the SEIA study area.

6.7.4 Culture

As noted, the SEIA study area has strong cultural significance to Aboriginal communities.

Engagement has been undertaken with local Aboriginal communities to understand the potential impacts associated with the use and operations of the wharf. Benefits were identified associated with a stronger sense of identity, particularly for younger members of the community, and through increased access between La Perouse and Kurnell.

The La Perouse Local Aboriginal Land Council (LPLALC) is a key stakeholder for this project and support the reinstatement of the wharves, Noeleen Timberly Chairperson of the LPLALC approved the below letter of support for the project.

“Kamay has been our home for millennia. Historically, our people regularly and frequently moved across the waters, up and down the coast and across the bay harvesting, caring for country and connecting with kin. Our spiritual connection to this place is as strong as ever and we continue our traditional fishing practices and connecting with each other on our beaches.

Reinstating the ferry wharves will help us restore and strengthen our connection across Kamay in a contemporary practice of continuing culture.

The La Perouse Local Aboriginal Land Council’s vision is building a safe and healthy community where future generations can live, work and thrive. The Kamay Ferry Wharves Project will provide critical infrastructure that will support our future cultural education and tourism operations, environmental protection programs and support retail and hospitality services within our community.

*We strongly support the Kamay Ferry Wharves Project, for the multiple cultural and economic opportunities it will bring to the Aboriginal community and wider community”.*⁶

A number of potential benefits have been highlighted for future exploration to maximise the benefits of the wharves for Aboriginal communities. These included, but were not limited to:

- Opportunities for cultural tourism
- Use of the ferry to transport groups between La Perouse and Kurnell as part of cultural awareness programs
- Increased opportunities for local Aboriginal Discovery Guides
- Possible involvement of the LPLALC in the operation of the ferry service
- Possible employment of existing trained coxswains by the ferry operator.

⁶ La Perouse Local Aboriginal Land Council, letter of support, 15th May 2020

It is recommended that these are explored in further detail to ensure benefits are maximised.

6.7.5 Decision making processes

There is not expected to be an impact on decision-making systems once the project is operational. The Communications and Community Engagement Management Plan for the project (2020) identifies plans to communicate future operations and management information, as well as a clear process for future contact during operation. Systems would be put in place to enable community feedback on operations and impact experienced.

It is noted that the local Aboriginal community has expressed a desire to be involved in the operation of the facility. As the project develops, opportunities for community engagement in operational activities could be explored to maximise local engagement and inclusion in decision making processes.

Overall, the operational project is assessed to have **no socio-economic impacts** associated with decision making processes.

7 Summary and evaluation of impacts (construction and operational impacts)

This SEIA has identified a range of socio-economic impacts throughout the construction and operation and maintenance of the project. Drawing on the impact evaluation in Sections 5 and 6, Table 25 and assigns an impact rating to the identified social and economic impacts associated with the construction and operation and maintenance of the project. This uses the methodology set out in Section 2. It is noted that some of the impacts outlined may differ from the impacts set out in the relevant technical reports as this SEIA focusses on socio-economic impacts, and uses a different impact evaluation methodology to those technical reports.

Table 25: Evaluation of negative socio-economic impacts

Initial Impact					
Impact	Extent of impact	Community groups impacted	Sensitivity	Magnitude	Impact Rating
Construction					
Access to property access (Section 5.1.1)	Project area and adjacent properties	Residents & businesses Aboriginal communities	Low	Low	Low
Impact to moorings (Section 5.1.1)	Project area	Residents & businesses Visitors & users	Low	Low	Low
Impacts to existing land use	Project area	Residents & businesses Aboriginal communities	Moderate	Low	Moderate-low
Impact to tourism industry	SEIA study area	All	Low	Low	Low
Impact to tourism industry	Greater Sydney	All	Negligible	Negligible	Negligible
Impacts to business operations and patronage	SEIA study area	Residents & businesses	Moderate	Low	Moderate-low
Impacts to commercial and recreational vessels	SEIA study area	All	Low	Low	Low
Impacts to landscape character	SEIA study area	All	High	Moderate	High-Moderate
Impacts to views	Kurnell and La Perouse	All	High	Moderate	High-Moderate
Impacts to views	SEIA study area	All	Low	Low	Low
Terrestrial noise impacts	Kurnell and La Perouse	Residents & businesses	Moderate	Moderate	Moderate

Initial Impact					
Impact	Extent of impact	Community groups impacted	Sensitivity	Magnitude	Impact Rating
		Aboriginal communities			
Impacts of traffic noise	Kurnell and La Perouse	All	Low	Negligible	Negligible
Impacts of underwater noise to recreational water uses	SEIA study area	All	High	Low	Moderate
Air quality impacts - dust	Kurnell and La Perouse	Residents & businesses Aboriginal communities	Low	Moderate	Moderate-Low
Air quality impacts - odour	Kurnell and La Perouse	Residents & businesses Aboriginal communities	Low	Negligible	Negligible
Impacts to access and connectivity	Kurnell and La Perouse	All	Low	Moderate	Moderate-Low
Parking impacts	La Perouse	All	Moderate	Low	Moderate-Low
Impacts to community infrastructure	Kurnell and La Perouse	Residents & businesses Aboriginal communities	Low	Low	Low
Impacts to public realm and open space	Project area	All	Moderate	Moderate	Moderate
Impacts to beaches and waterway access	Kurnell, La Perouse and botany bay	All	Low	Low	Low
Impacts to utilities	Kurnell and La Perouse	Residents & businesses Aboriginal communities	Low	Negligible	Negligible
Way of life impacts – recreation	Kurnell and La Perouse	All	Moderate	Moderate	Moderate
Way of life impacts – perceived traffic and parking	Kurnell and La Perouse	Residents & businesses Visitors & users	Moderate	High	High - Moderate
Biodiversity impacts	SEIA study area	All	Moderate	Moderate	Moderate
Health and wellbeing impacts	SEIA study area	All	Low	Low	Low
Decision making process – perceived impact	SEIA Study Area	Residents & businesses Aboriginal communities	Low	Low	Low

Initial Impact					
Impact	Extent of impact	Community groups impacted	Sensitivity	Magnitude	Impact Rating
Operation and maintenance					
Impacts to commercial shipping operations	SEIA study area	Residents & businesses	Moderate	Negligible	Negligible
Impacts to landscape character	SEIA study area	All	Low	Low	Low
Impacts to views	Kurnell and La Perouse	All	Low	Moderate	Moderate-Low
Terrestrial and underwater noise impacts	Kurnell and La Perouse	All	Moderate	Negligible	Negligible
Impacts to air quality	Kurnell and La Perouse	Residents & businesses Aboriginal communities	Low	Negligible	Negligible
Impacts to traffic and congestion	SEIA study area	All	Low	Low	Low
Impacts to parking	Kurnell and La Perouse	All	Low	High	Moderate
Noise impacts to Eastern Zone Gungahlin Aboriginal Childcare Centre	Eastern Zone Gungahlin Aboriginal Childcare Centre	Aboriginal communities	Low	Low	Low
Way of life impacts - conflict	Kurnell and La Perouse	All	High	Low	Moderate
Community concern and aspiration – Development	Kurnell and La Perouse	Residents & businesses Aboriginal communities	Moderate	Low	Moderate-Low
Community concern – Perceived impacts to transport infrastructure and parking	Kurnell and La Perouse	Residents & businesses Aboriginal communities	High	High	High
Community concern – Environmental impact	Kurnell and La Perouse	All	Moderate	Low	Moderate-Low

Table 26: Positive socio-economic impacts

Impact	Extent of positive impact	Community groups impacted
Construction		
Impact to socio demographic profile	SEIA study area	Residents & businesses Aboriginal communities
Impact to direct employment	SEIA study area and Greater Sydney	Residents & businesses

Impact	Extent of positive impact	Community groups impacted
		Aboriginal communities
Impact to indirect employment	SEIA study area and Greater Sydney	Residents & businesses Aboriginal communities
Impact to construction industry	SEIA study area and Greater Sydney	Residents & businesses Aboriginal communities
Operation and maintenance		
Impacts to existing and future land use	Project area	All
Impact to socio demographic profile	SEIA study area	Residents & businesses Aboriginal communities
Impact to direct employment	SEIA study area and Greater Sydney	Residents & businesses Aboriginal communities
Impact to indirect employment	SEIA study area and Greater Sydney	All
Impact to tourism	SEIA study area	All
Impact to the tourism industry	Greater Sydney	All
Impacts to business operations and patronage	SEIA study area	Residents & businesses
Impacts to views	SEIA study area	All
Impacts to travel modes	SEIA study area and Greater Sydney	All
Impact to accessibility and emergency services	SEIA study area	All
Impacts to public realm and open space	Kurnell and La Perouse	All
Impacts to beaches and water-based activities	Kurnell, La Perouse and Botany Bay	All
Way of life impacts – liveability	Kurnell and La Perouse	Residents & businesses Aboriginal communities
Way of life impacts – recreation	Kurnell and La Perouse	All
Community aspirations (cross-bay connectivity and access)	Kurnell and La Perouse	All
Community aspirations – Development opportunities	Kurnell and La Perouse	Residents & businesses Aboriginal communities

8 Environmental management measures

This section outlines proposed mitigation and management measures in relation to the potential social and economic impacts of the project during construction and operation. This includes mitigation measures for any identified potential negative socio-economic impacts, and potential enhancement measures for possible positive impacts identified.

8.1 Technical mitigation measures

It is noted that a number of the construction socio-economic impacts within this SEIA relate to broader impacts associated with noise, air quality, visual, and traffic. In such instances, the relevant technical assessments have analysed the potential impacts and identified relevant mitigation and management measures. These are summarised in detail in the relevant technical reports and in Appendix A of the EIS, and include:

During construction:

- Development and implementation of a Construction Environmental Management Plan (CEMP) and associated sub-plans.
- Development and implementation of Construction Traffic Management Plan to ensure impacts on the road network are minimised and ensure safety for all other road users, in accordance with the RMS Traffic Control at Work Sites - Technical Manual and Transport for NSW QA Specification G10 - Traffic Management.
- Development of a mooring relocation strategy and implementation to relocate affected swing moorings prior to construction
- Development and implementation of a Biodiversity Management Plan, setting out requirements and procedures to protect and manage biodiversity, including monitoring requirements for construction and operation in line with statutory requirements and guidelines.
- Development and implementation of a Noise and Vibration Management Plan (NVMP) setting out the mitigation and management strategy to minimise noise impacts as part of construction. This will include plans for notification of any noise or vibration affected sensitive receivers before starting work.
- Integration of architectural and landscape treatments applied to positively contribute to and integrate with existing and emerging local character of the area.

During operation

- Consultation and notification carried out before the ferry service starts to operate to ensure the surrounding maritime operations including recreational boating are informed about the project.

8.2 Social and economic mitigation measures

On top of these technical mitigation measures proposed through other technical assessments, there are a number of additional mitigation measures that are recommended to support maximisation of positive impacts and minimise negative impacts.

Table 27 summarises the proposed management and mitigation measures specific to the SEIA.

Table 27: Environmental management measures for socioeconomic impacts

Impacts	Mitigation	Responsibility	Timing
Socioeconomic impacts during construction and operation	<p>Communication Plan</p> <p>A Community Liaison Implementation Plan (CLIP) will be prepared and implemented as part of the CEMP to ensure provision of timely and accurate information to the community during construction. The CLIP will include (as a minimum):</p> <ul style="list-style-type: none"> • Mechanisms to provide details and timing of proposed activities to affected residents, including changed traffic and access conditions • Contact name and number for complaints • Providing regular project updates to the local community and businesses • Ongoing liaison to neighbouring businesses and other sensitive receptors. Including targeted engagement with priority groups, including ageing populations • Ongoing consultation and engagement with the local Aboriginal community, and encouragement of their active participation in project development and operation • Providing information on the actual social and economic impacts that can be expected as a result of the construction of the project and ways in which these will be mitigated • Marketing, signage and advertisement opportunities to support local businesses impacted during construction, and promote tourism in the area • Opportunities for community involvement in monitoring of impact. 	Transport for NSW / Contractor	Pre-construction Construction Operation

Impacts	Mitigation	Responsibility	Timing
	The CLIP will be prepared in accordance with the RMS <i>Community Involvement and Communications Resource Manual</i> .		
Emergency vehicle access	Emergency access Access for emergency vehicles will be maintained at all times during construction. Any site-specific requirements will be determined in consultation with the relevant emergency services agency.	Contractor	Construction
Direct and indirect employment	Skills and employment strategy A strategy setting out how the project will promote opportunities for upskilling and training of the local workforce, during both construction and operation. It should consider support for local employment particularly for people with a disability, Aboriginal peoples, the unemployed and other vulnerable groups. The strategy should consider a target for local employment, and skills attainment which could be used to monitor success of implementation.	Transport for NSW / Contractor	Pre-construction Detailed design Construction Operation

9 Summary of residual impacts

Based on application of the socio-economic specific mitigation measures, and broader technical mitigation and management measures introduced in Section 8, it is considered that the overall impact of the project would alter. Table 28 provides a summary of the anticipated residual negative impacts following mitigation and management. Only those impacts that have altered are shown in the tables. Continued engagement and communications will support in further minimising socio-economic impacts.

The positive impacts have not been assigned a significance, and as such these are considered unchanged from those reported in Table 26.

Table 28: Evaluation of residual negative impacts

Potential pre-mitigation adverse impact	Relevant management measures	Potential residual impact
Construction		
Access to property impacts (Section 5.1.1)	Community Liaison Implementation Plan	Negligible
Impact to moorings (Section 5.1.1)	Mooring Relocation Strategy	Negligible
Impacts to existing land use	Traffic Management Plan Community Liaison Implementation Plan	Negligible
Impacts to business operations and patronage	Community Liaison Implementation Plan Traffic Management Plan	Low negative
Impacts to commercial and recreational vessels	Community Liaison Implementation Plan Marine Works Management Plan	Negligible
Impacts to landscape character	See Landscape Character and Visual Impact Assessment Report	Moderate negative
Impacts to local views	See Landscape Character and Visual Impact Assessment Report	Moderate-Low negative
Impacts to wider views	See Landscape Character and Visual Impact Assessment Report	Low negative
Terrestrial noise impacts	Noise and Vibration Management Plan	Moderate-Low negative
Underwater noise impact	Noise and Vibration Management Plan	Moderate negative
Air quality impacts - dust	See Air Quality Assessment Report	Low negative
Impacts to access and connectivity	Traffic Management Plan	Moderate-Low negative
Parking impacts	Traffic Management Plan	Low negative
Impacts to community infrastructure	Traffic Management Plan	Negligible

Potential pre-mitigation adverse impact	Relevant management measures	Potential residual impact
Impacts to public realm and open space	Community Liaison Implementation Plan	Low negative
Impacts to beaches and waterway access	Community Liaison Implementation Plan	Low negative
Way of life impacts – recreation	Community Liaison Implementation Plan	Moderate-Low negative
Way of life impacts – perceived traffic and parking	Community Liaison Implementation Plan	Moderate-Low negative
Biodiversity impacts	Biodiversity Management Plan	Low negative
Health and wellbeing impacts	Community Liaison Implementation Plan	Negligible
Decision making process – perceived impact	Community Liaison Implementation Plan	Negligible
Operation		
Impacts to landscape character	See Landscape Character and Visual Impact Assessment Report	Low negative
Impacts to wider views	See Landscape Character and Visual Impact Assessment Report	Low negative
Impacts to traffic and congestion	Community Liaison Implementation Plan	Low negative
Impacts to parking	Community Liaison Implementation Plan	Moderate-Low negative
Way of life impacts - conflict	Community Liaison Implementation Plan	Low negative
Community concern around development	Community Liaison Implementation Plan	Low negative
Perceived impacts to transport infrastructure and parking	Community Liaison Implementation Plan	Moderate negative
Community concern – Environmental impact	Marine Biodiversity Offset Strategy	Low negative

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