

Cleary Bros (Bombo) Pty Ltd

ABN: 28 000 157 808



CLEARY BROS

Albion Park Quarry Extraction Area Stage 7 Extension Social Impact Assessment

Prepared by



Element Environment

February 2022

Specialist Consultant Studies Compendium

Part 10

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Cleary Bros (Bombo) Pty Ltd

ABN: 28 000 157 808

Albion Park Quarry Extraction Area Stage 7 Extension Social Impact Assessment

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February 2022

Addendum: The Social Impact Assessment identifies that Cleary Bros were continuing discussions with the owners of “Figtree Hill” regarding Project-related impacts, and an agreement had not been reached at the time the assessment was finalised. As identified in Section 2.5 of the EIS, a negotiated agreement has since been finalised between Cleary Bros and the owners of “Figtree Hill”. As such, the “Figtree Hill” property is now considered Project-related for the purposes of this assessment. Under that agreement, the owners have agreed to accept Project-related impacts to the extent identified in the air quality, noise and visual assessments.

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Albion Park Quarry Extraction Area Stage 7 Extension

Certification Page

I, Angela Peace, certify that the SIA component of the EIS contains all information relevant to the SIA for the Project, and that the information is not false or misleading. My qualifications and experience are listed below.

Qualifications and membership:

1. Bachelor of Arts (Communications)
2. Community Development Diploma
3. Member, International Association of Impact Assessment (membership no. 10499330)
4. Member, International Association of Public Participation

Experience:

The author is trained in social science methodologies and has demonstrated SIA skills in government, private and education settings. She has managed SIAs for extractive industry, waste recovery, and transport infrastructure projects in NSW, including NSW State Significant Developments.

The author is a Social Impact and Community Engagement Specialist with a range of experience in carrying out major Social Impact Assessments (SIA) across a range of sectors in NSW, inclusive of participatory engagement practices.

Date: 23 February 2022

Angela Peace - SIA and Community Engagement Specialist

I, Dr Jamie Seaton, certify that the SIA component of the EIS contains all information relevant to the SIA for the Project, and that the information is not false or misleading. My qualifications and experience are listed below.

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1. Bachelor of Science Hons. (Human Geography)
2. Community Development Diploma
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Experience:

The technical reviewer is trained in social science methodologies and has demonstrated SIA skills in government, private and education settings. He has managed SIAs for extractive industry, waste recovery, and transport infrastructure projects in NSW and Queensland, including NSW State Significant Developments.

Date: 23 February 2022

Dr Jamie Seaton - SIA and Community Engagement Lead

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EXECUTIVE SUMMARY

This Social Impact Assessment (SIA) has been prepared to support the State Significant Development (SSD) application by Cleary Bros (Bombo) Pty Ltd (Cleary Bros), for the proposed extension of the current extraction area within the Albion Park Quarry (the Quarry) – the Albion Park Quarry Stage 7 Extension Project (the Project).

It has been prepared in accordance with the Social Impact Assessment Guideline (the 2021 Guideline), published in October 2020 by the NSW Department of Planning, Industry and Environment (DPIE), the relevant initial project Secretary's Environmental Assessment Requirements provided to Cleary Bros in 2019 and the relevant supplementary project Secretary's Environmental Assessment Requirements provided to Cleary Bros in 2021.

The Quarry is approximately 20 km south-southwest of Wollongong, located inland of the Princes Highway in the Shellharbour Local Government Area. In this SIA, the social 'Locality' has been defined as those landholders and residents residing in proximity to the Project who share a fence line, the 'Community' where the spatial extent of social impacts on communities is generally broader than the nearby neighbour (including but not limited to the State Suburbs of Croom and Albion Park Rail), and the indirect areas of influence or 'Region' including the LGAs of Wollongong, Shellharbour, Kiama, Shoalhaven and Wingecarribee, and the Greater Sydney region.

A best practice approach to SIA has been adopted for the Project, that integrates international and NSW social guideline requirements and has involved a number of key phases. Engagement with the community has been a key component of the SIA program, involving nearby neighbours and local and regional stakeholders in the identification of social impacts and strategies to address (negative) and enhance (positive) project impacts.

Given the established presence of the operation in the community, Cleary Bros has a sound understanding of the key community issues of focus including noise, air quality, blasting, and visual amenity. This understanding of key issues of interest to the community comes from past assessment processes, the long history of the operations in the community and complaints tracking.

The SIA assessed both the unmitigated and mitigated social impacts (positive and negative). The predicted negative impacts are primarily expected to be direct and localised – which isn't surprising given the nature of the Project. Social impacts relating to way of life (how people work, rest and play) and surroundings, including the aesthetic value and/or amenity (social amenity), were the prominent negative impacts identified; followed by impacts relating to personal and property rights.

It was also assessed that the Project would result in positive impacts to the wider community in terms of the continuation of employment, workforce and supplier expenditure, and community investment. A significant proportion of employment and business opportunities would continue to flow to the surrounding region and these benefits would not occur should the Project not proceed.

A number of mitigation measures are identified to address the social risks including:

- Updating various management plans to include the range of mitigation and management measures outlined in the various technical assessments;
- Ongoing open and transparent discussions of social amenity impacts at the biannual CCC meetings;

- Ongoing regular blasting communications;
- Enhanced social investment strategy to strengthen social value; and
- Enhancement of Cleary Bros existing community engagement strategy in the QEMP.

The assessment also recommends that Cleary Bros develops a framework to monitor social impacts.

1 PROJECT OVERVIEW

1.1 INTRODUCTION

This Social Impact Assessment (SIA) has been prepared to support the State Significant Development (SSD) application and Environmental Impact Statement (EIS) submitted by Cleary Bros (Bombo) Pty Ltd (Cleary Bros), for the proposed extension of the current extraction area within the Albion Park Quarry (the Quarry) – the Albion Park Quarry Stage 7 Extension Project (the Project). For the purposes of the EIS, the development application refers to the Project Area which incorporates the current extraction area (Stages 1 to 6) and the proposed Stage 7 - see **Figure 1.1**.

The SIA adopts the framework set out in the Social Impact Assessment Guideline (the 2021 Guideline), published in October 2020 by the NSW Department of Planning, Industry and Environment (DPIE).

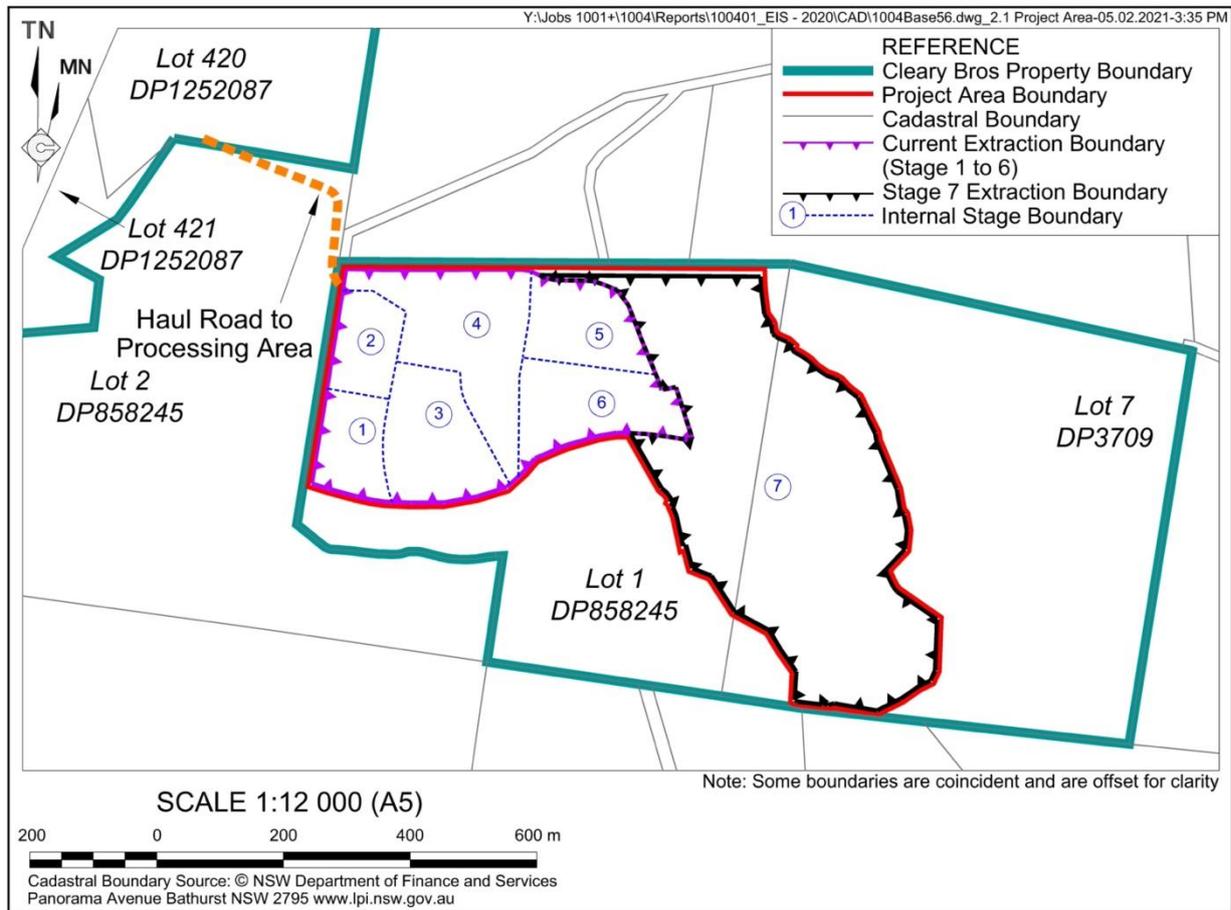


Figure 1.1 Project area

Source: R.W. Corkery & Co

1.2 PROJECT DESCRIPTION

The Quarry is approximately 20 km south-southwest of Wollongong, located inland of the Princes Highway (**Figure 1.2**). The Cleary Bros Albion Park property covers an area of 142.74ha of which approximately 54 ha is currently disturbed by Quarry-related activities. Activities undertaken across the landholding include:

- An administration office, workshop and associated buildings;
- A fixed processing plant (partly within the footprint of the initial extraction area);
- A product stockpiling and loading area;
- A hardstand / laydown and parking area for light and heavy vehicles;
- A concrete batching plant;
- The Beacon Hill extraction area (currently approved for processing quarry products and processing imported virgin extracted natural material);
- The current extraction area (Stages 1 to 6) with an associated amenity barrier;
- Native vegetation management; and
- Grazing cattle and general farm management.

Cleary Bros is seeking consent to extend the extraction operations into Stage 7, which together with the remaining resources in Stages 1 to 6 contains approximately 33 million tonnes of high-quality latite and agglomerate. Stage 7 extraction would be undertaken in the same manner as Stages 1 to 6. Cleary Bros proposes to introduce continuous in-pit primary crushing and screening in addition to the current intermittent campaign crushing and screening. The current practices for product loading and dispatch would continue. The maximum annual production would be retained at the current approved level of 900,000 tonnes per annum (tpa). The key Project features are outlined in **Table 1-1**.

The Project aims to:

- Secure access to a long-term hard rock resource for use in the Illawarra and Greater Sydney Regions;
- Meet the increasing supply demands over the next 30 years;
- Maximise resource recovery within the defined extended extraction area;
- Progressively rehabilitate the land and undertake activities in an environmentally responsible manner; and
- Maintain local employment and continue support of local community-based groups and initiatives.

The Project is in an area identified as Significant Extractive Resources – State and Regional Mineral Resources and as a Mineral Resource Area under the Shellharbour Local Environmental Plan 2013. This area has been recognised as strategically important for the supply of high-quality construction materials for the Sydney and Illawarra Regions, with current extractive operations targeting hard rock resources at Albion Park (Cleary Bros and Holcim), Dunmore (Boral), Bass Point (Hanson) and Bombo (Sydney Trains).

The Project is classified as a SSD and triggers the 2017 Guideline which sets mandatory requirements for extractive industry SIAs conducted in NSW.

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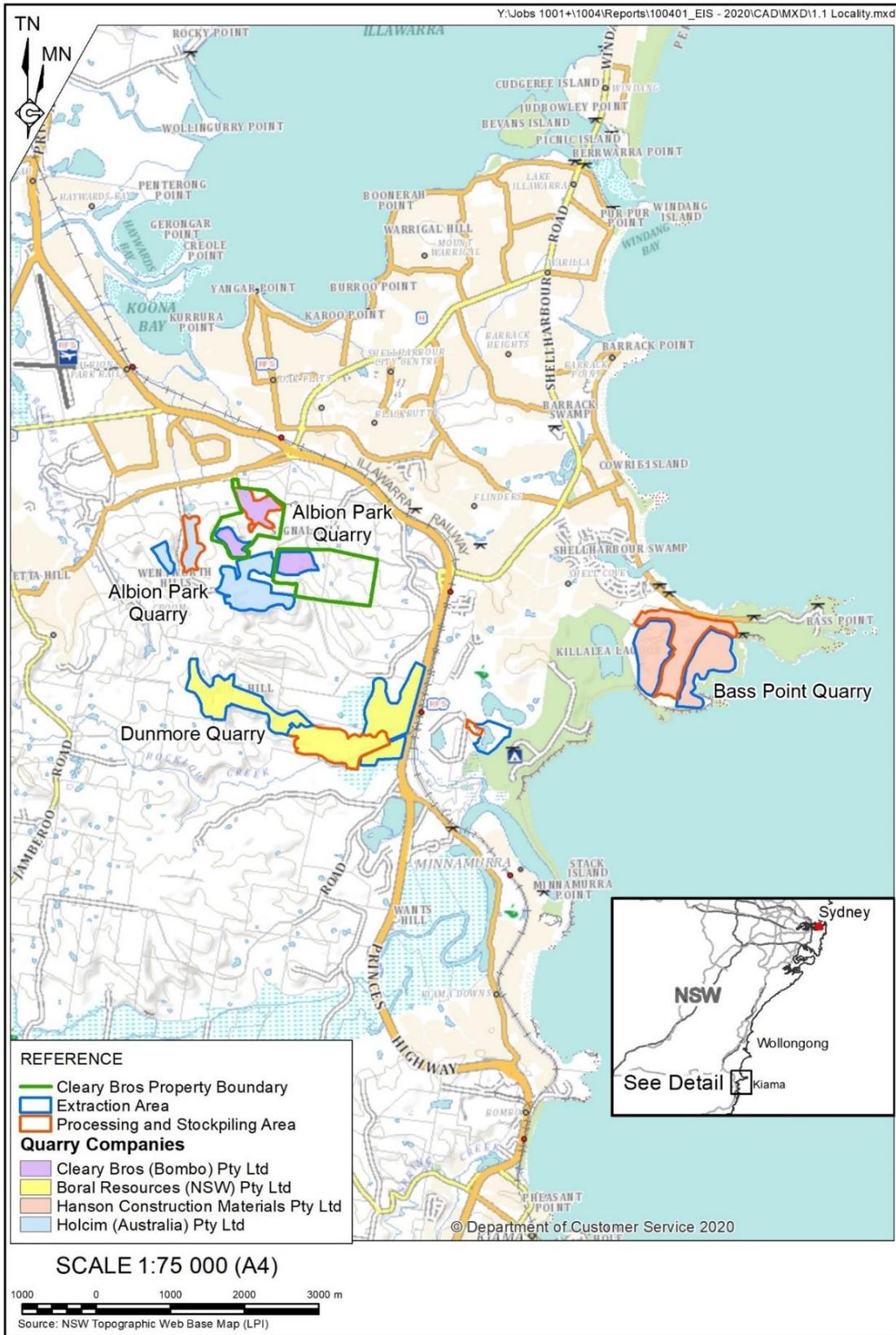


Figure 1.2 Locality plan

Source: R.W. Corkey & Co

Table 1-1 Key Project features

| Project element | Description of current approved operations | Proposed changes to current approved operations |
|---|--|---|
| Extraction Method | Conventional drill, blast, load and haul | No change |
| Project Area | Stage 1 to 6 of the current extraction area and Stage 7 of the proposed extraction area extension | Stage 7 of the proposed extraction area extension |
| Infrastructure requirements | Use existing infrastructure and build internal access roads only | Minimal change. All other infrastructure is already in place/approved |
| Extension Disturbance Area (Stage 7) | Current disturbance area is 16ha. | The Project will increase the total disturbance area to 36ha |
| Product Transport | Using existing approved haulage routes (No further approvals required). | No change |
| Annual Production | 900 000 tonnes (maximum) | No change |
| Project Duration | 30 Years | Additional 15 years from currently approved quarry life |
| Processing | Transported by haul trucks to the already approved fixed processing plant Periodic processing of some extracted rock within the Project Area using mobile crushing and screening equipment | No change |
| Operational Workforce | Approximately 27 employees and contractors are directly involved in extraction and processing operations at the Quarry. A further 50 employees and contractors are employed outside of the Quarry as a direct result of quarrying operations | Continued employment for additional Project life |
| Hours of Operation | 7am to 5.30pm Monday to Friday 7am to 1pm Saturdays No operations on Sundays or Public Holidays | No change |
| Water Management | Diversion banks constructed to redirect clean runoff away from the active extraction area. A sump within the active extraction area to control sediment-laden runoff | New diversion banks, sediment basins and associated water management infrastructure |
| Rehabilitation | Rehabilitation will occur progressively throughout the Project life | Final landform to be revised to incorporate expanded quarry footprint |

1.3 OBJECTIVES OF THE SOCIAL IMPACT ASSESSMENT

In July 2021, DPIE released a Guideline to standardise the SIA approach across all SSD, State Significant Infrastructure and Critical State Significant Infrastructure projects.

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The 2021 Guideline builds on the 2017 Guideline version, and provides advice to applicants, whether State Government or industry, on how to prepare a SIA as a part of their overall environmental impact assessment (EIA) process. It outlines best practice engagement techniques, and provides a process for assessing, determining and responding to social impacts.

The objectives adopted for this SIA include:

- Providing a clear, consistent and rigorous framework for identifying, predicting, evaluating and responding to the social impacts of state significant resource projects, as part of the overall EIA process;
- Facilitating improved project planning and design through earlier identification of potential social impacts;
- Promoting better development outcomes through a focus on minimising negative social impacts and enhancing positive social impacts;
- Supporting informed decision-making by strengthening the quality and relevance of information and analysis provided to the consent authority;
- Facilitating meaningful, respectful and effective community and stakeholder engagement on social impacts across each EIA phase, from scoping to post-approval; and
- Ensuring that the potential social impacts of approved projects are managed in a transparent and accountable way over the project life cycle through conditions of consent and monitoring and reporting requirements.

1.4 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Secretary's Environmental Assessment Requirements (SEARs) were initially issued for the Project by DPIE in October 2019 following the publication of the 2017 Guideline and prior to the release of the 2021 Guideline. Supplementary SEARs were issued in March 2021 following minor changes to the proposed Project Area and determination by the Commonwealth Department of Agriculture, Water, and the Environment that the Project is a controlled action. The SEARs state that this report must address key social issues including a detailed assessment of the potential social impacts of the development that builds on the findings of the SIA Scoping Report, in accordance with the 2017 Guideline, paying particular consideration to:

- How the development might affect people's way of life, community, access to and use of infrastructure, services and facilities, culture, health and wellbeing, surroundings, personal and property rights, decision-making systems, and fears and aspirations;
- The principles in Section 1.3 of the 2017 Guideline; and
- The review questions in Appendix D of the 2017 Guideline.

As stated earlier, in July 2021, DPIE released the Guideline for all State Significant projects. The 2021 Guideline has been used for the purpose of this assessment. **Attachment 1** outlines where the requirements relating to social impacts within the initial and supplementary SEARs are addressed in this report.

1.5 STRUCTURE OF THIS REPORT

The structure of this report is influenced by the 2021 Guideline requirements.

- **Section 2** establishes the legislative and social policy context of the study;
- **Section 3** explores the social locality;
- **Section 4** describes the methodology for scoping and preparing the SIA;
- **Section 5** establishes the social baseline;
- **Section 6** and **Section 7** are dedicated to describing and assessing the expected and perceived impacts, describing social impact enhancement and mitigation measures and outlining the residual impacts; and
- **Section 8** provides a framework for monitoring and managing the impacts.

The structure of this report also observes the review questions contained in the 2021 Guideline. The Review Questions are essentially a checklist for the author to confirm that the 2021 Guideline has been complied with, in undertaking the SIA and preparing this report. A compliance matrix is presented in **Attachment 1** to identify where the review questions are addressed in this report.

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2 LEGISLATION AND SOCIAL POLICY CONTEXT

2.1 LEGISLATION

The Environmental Protection & Assessment Act 1979 (EP&A Act) sets the legislative context for this study. The objects of the EP&A Act are to:

- Promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources;
- Facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment;
- Promote the orderly and economic use and development of land;
- Promote the delivery and maintenance of affordable housing;
- Protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats;
- Promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage);
- Promote good design and amenity of the built environment;
- Promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants;
- Promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the state; and
- Provide increased opportunity for community participation in environmental planning and assessment.

The SEARs (and therefore the 2017 Guideline) are issued under the provisions of the EP&A Act, and therefore set legislative requirements that this study must accommodate.

2.2 COMMUNITY PLANS AND STRATEGIES

Regional plans which reflect the aspirations of the community have been developed by the State Government and local authorities. These plans are outlined below.

2.2.1 NSW Premier's Priorities

In June 2019, NSW Premier Gladys Berejiklian unveiled 14 Premier's Priorities which represent the NSW Government's commitment to making a significant difference to enhance the quality of life of the people of NSW (<https://www.nsw.gov.au/premiers-priorities>) and have been set with the purpose of delivering on the Government's key policy priorities, being:

- A strong economy;
- Highest quality education;
- Well-connected communities with quality local environments;
- Putting customer at the centre of everything we do; and
- Breaking the cycle of disadvantage.

The Project provides outcomes consistent with the Premier's Strategy by driving and supporting economic growth in the Illawarra Shoalhaven region of New South Wales. It will provide a stimulus to the local, regional and New South Wales economy.

2.2.2 Draft Illawarra Shoalhaven Regional Plan 2041

The Draft Illawarra Shoalhaven Regional Plan 2041 was released in November 2020 and is the NSW Government's 20-year plan for the region. It provides direction for the region's productivity, environmental management and liveability, and for the location of housing, employment, infrastructure and open space.

The objectives outlined in the Draft Illawarra Shoalhaven Regional Plan 2041 are guided by four key themes including a:

- Productive and innovative region;
- Sustainable and resilient region;
- Region that values its people and places; and
- Smart and connected region.

The key objective and strategies from the plan which relate to the Project are as follows:

Objective 10 - Sustainably maximise the productivity of resource lands

Strategy 10.1: Consider the ongoing operation of existing mining and resource extraction and future development of known resources in local strategic planning and local plans by:

- Protecting areas of mineral and energy resources potential; and
- Protecting infrastructure that facilitates mining industries, such as road and rail freight routes, from development that could affect current or future extraction.

Strategy 10.2: Consider opportunities for strategic biodiversity conservation measures around known hard rock resource lands to protect environmental values and provide certainty for extraction activities.

The Illawarra Shoalhaven Region has a strong history of mining and extractive activities, dating back 200 years when coal deposits were first discovered around Coalcliff. As well as coal mining, the region also has valuable hard rock resource lands such as the Dunmore - Shellharbour Hills areas, as well as scattered quarries in the Shoalhaven Local Government Area (LGA).

The Project supports Objective 10 and the strategies by seeking to make an economic contribution to the region and to Sydney. The Project seeks to prolong the Quarry's resource supply to the development industry, servicing infrastructure, commercial, industrial and residential projects. It also considers opportunities for strategic biodiversity conservation measures through the preparation of a Biodiversity Development Assessment Report as part of the Environmental Impact Statement.

2.3 SHELLHARBOUR CITY COMMUNITY STRATEGIC PLAN 2018-2028

The Shellharbour City Community Strategic Plan 2018-2028 outlines the community's vision for the area and sets out directions for the future. The community vision is:

In 2030, Shellharbour is a dynamic city that values and celebrates the unique diversity of our people, places and environment. We are a connected community working together to create a safe, sustainable future that provides opportunities for all to achieve their potential.

Ten objectives are identified as follows:

- Vibrant, safe and inclusive city;
- Active and healthy community;
- Protects, promotes and enhances its natural environment;
- Practices sustainable living;
- A city that is connected through places and spaces;
- Plans, builds and manages infrastructure for the community;
- Supports and increases employment and business opportunities within a strong local economy;
- Welcomes, engages and attracts visitors;
- Led through collaboration; and
- Supported by a Council that is responsive, accountable and financially viable.

The Project will help secure the productivity and capacity of existing resource land and will help Council achieve key objectives outlined in the strategic plan.

3 SOCIAL LOCALITY

3.1 LOCATION OF ALBION PARK QUARRY

The Quarry is located on the South Coast of New South Wales in the Illawarra Shoalhaven Region, around 85 km south of Sydney. It is approximately 1 km southwest of the Princes Highway at Croom, NSW and is approximately 20 km south-southwest of Wollongong.

3.2 SOCIAL LOCALITY

For the purpose of this SIA, the primary social locality for the Project Area has been determined based on the consideration of:

- The nature and scale of the Project and its associated activities;
- The characteristics of surrounding communities and how positive and negative impacts may be reasonably perceived or experienced by different people, including those who may be vulnerable or marginalised;
- The potentially affected built or natural features located near the Project that have social value or importance;
- Cumulative impacts that may impact affected communities as a result of other projects or operations near the Project Area;
- Any relevant social, cultural, demographic trends or social change processes occurring now or in the past near the Project Area; and
- The history of the proposed Project and the area, and any similar experiences people near the Project Area have had.

Based on the above, as depicted in **Figure 3.1**, this assessment has considered the following 'areas of social influence', as:

- **'Nearby neighbour'** is applied to those landholders and residents residing in proximity to the Quarry who share a fence line with land associated with the Project. This is identified as the geographic area in which communities are most likely to experience social impacts from the Project.
- **'Community'** is applied in the SIA where the spatial extent of social impacts on communities is generally broader than the nearby neighbour. In this report, 'community' refers to a conceptual geography not necessarily aligned to actual suburb boundaries but includes (and is not limited to) Shellharbour-Flinders and Albion Park Rail SA2 (Statistical Area 2) census geographies.
- **'Region:'** In some instances, the social locality is extended to a 'region' to reflect potential social impacts on a broader community. For example, the supply chain associated with the Quarry products. In this case, the indirect areas of influence or 'region' includes the LGAs of Wollongong, Shellharbour, Kiama, Shoalhaven and Wingecarribee, and the Greater Sydney region.

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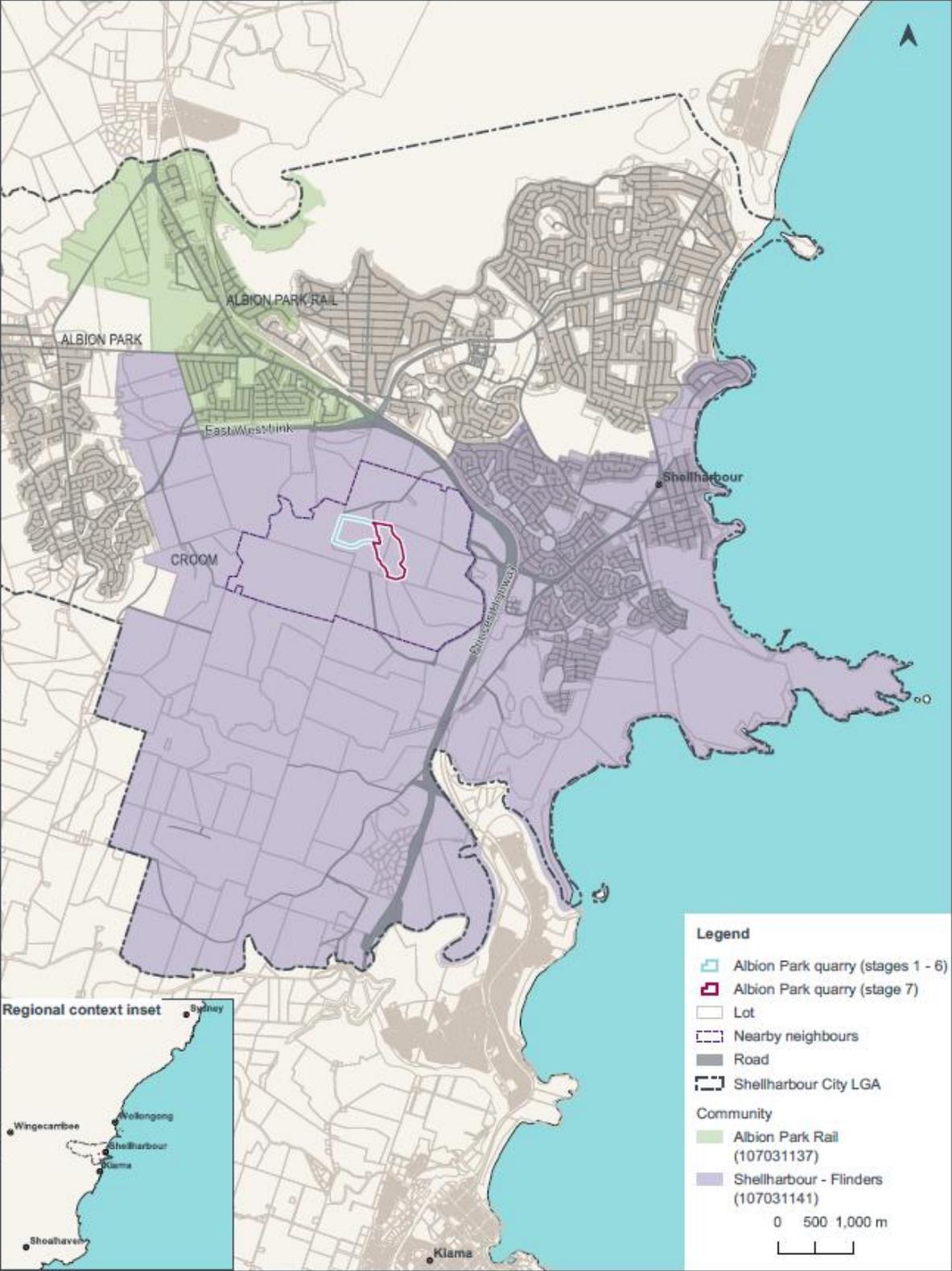


Figure 3.1 Social locality

Source: Element Environment

4 SOCIAL IMPACT ASSESSMENT APPROACH

SIA is an approach to predicting and assessing the likely consequences of a proposed action in social terms and developing options and opportunities to improve social outcomes. Best practice SIA is participatory and involves understanding impacts from the perspectives of those involved in a personal, community, social or cultural sense, to provide a complete picture of potential impacts, their context and meaning.

Given that the Quarry is a well-established operation, and relationships with the community have been developed over time, the SIA engagement approach adopted for the current assessment builds on existing relationships and activities. The engagement program commenced during the planning phases of the Project and has continued in an iterative manner throughout its design and assessment phases. The methods described in Section 4.1 enabled the collection of data to address the social impact categories defined in the 2021 Guideline (refer **Table 4-1**).

The ethics of research involving humans and the principles identified in Section 1.2 of the 2021 Guideline are a focus of this SIA.

Table 4-1 Social impact categories

| Categories | Definition |
|--------------------------------|--|
| Way of life | How people live, how they get around, how they work, how they play, and how they interact each day |
| Community | Community composition, cohesion, character, how the community functions, and people's sense of place |
| Accessibility | How people access and use infrastructure, services and facilities, whether provided by a public, private or not-for-profit organisation |
| Culture | Aboriginal and non-Aboriginal, including shared beliefs, customs, values and stories, and connections to Country, land, waterways, places and buildings |
| Health and wellbeing | Physical and mental health especially for people vulnerable to social exclusion or substantial change, psychological stress resulting from financial or other pressures, access to open space and effects on public health |
| Surroundings | Ecosystem services such as shade, pollution control, and erosion control, public safety and security, access to and use of the natural and built environment, and aesthetic value and amenity |
| Livelihoods | People's capacity to sustain themselves through employment or business |
| Decision-making systems | Including the extent to which people can have a say in decisions that affect their lives, and have access to complaint, remedy and grievance mechanisms. |

4.1 METHODOLOGY FOR SCOPING THE SIA

4.1.1 Scoping tool

The scoping tool contained in the 2017 Guideline was a method implemented during the SIA scoping phase. The process of applying the scoping tool involved:

- Using early engagement results as inputs to the scoping tool and considering each 'matter' (i.e. amenity, access, built environment, heritage, community and economic) and its subcategories, before determining how likely it is that Project activities will cause an impact to it;

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- For each matter, considering and assessing the material characteristics of any likely impact;
- For each matter, considering stakeholder/community opinions and sentiment towards the project activities;
- For each matter, determining whether or not a social impact will arise from the project activities, and then developing a rationale for the decision; and
- For each matter, determining the level of assessment (and engagement) required in the EIS preparation phase, and selecting from the following list the most appropriate SIA type:

Desktop integration assessment: impact will be mostly assessed in other technical studies in the EIS, and desktop review will cross-reference and integrate those studies in the SIA report.

Standard assessment: impact will be partially assessed in other EIS technical studies; however, further information and evaluation is required in the SIA to analyse the social dimensions of the impacts.

Detailed assessment: impact will not be assessed in other EIS technical studies and will be primarily assessed by specialists in the Phase 2 SIA (i.e. the EIS preparation).

No further assessment: the social impact is unlikely to be experienced by anyone, although a monitoring framework will incorporate mechanisms to respond to unanticipated impacts.

Each matter and its associated level of assessment (determined by the scoping tool) was considered in the context of the social impact categories specified in the 2021 Guideline. Refer to **Attachment 2** for the scoping tool.

4.2 STAKEHOLDER IDENTIFICATION AND ANALYSIS

A stakeholder is a group, individual or organisation that is interested in, affected by, or has the capacity to influence a project (Brereton, 2005). **Figure 4.1** contains a modified list of people and organisations that are likely to be stakeholders in most projects. This list was relied upon to provide a starting point for the stakeholder analysis conducted in the SIA scoping phase. There will however, always be locally-specific groups and locally-specific circumstances that influence the local cultural context (Vanclay, 2015).

The locally-specific Project stakeholders are known to Cleary Bros courtesy of their long-term presence in the Illawarra Shoalhaven Region. As part of the scoping exercise, a high-level stakeholder analysis was undertaken first by leveraging the knowledge held by Cleary Bros staff and further desktop analysis (of files held by the Project team related to previous community engagement, and online sources) was completed to identify other stakeholders potentially interested in the Project. The Project stakeholder list is in **Table 4-2**.

In undertaking the stakeholder analysis, and inherent within the SIA process is the need to identify and empower vulnerable groups. Accordingly, for the Project stakeholder analysis consideration was given to the identification of any potentially vulnerable groups, including but not limited to “indigenous peoples, ethnic minorities, migrants, disabled people, the homeless, the poor, those struggling with substance abuse, and isolated elderly people” (Vanclay, 2015).

| | |
|-------------------------------------|--|
| Residents | <ul style="list-style-type: none"> Affected fenceline neighbours and nearby residents |
| People in host communities | <ul style="list-style-type: none"> Those that relocate as a result of a planned resettlement or through their own migrations People in communities near where quarry workers or other immigrants will be located |
| Other communities | <ul style="list-style-type: none"> More distant residents whose livelihoods may be affected as a result of the Project Communities near associated works such as haulage routes |
| Project employees | <ul style="list-style-type: none"> Quarry workers and their families |
| Indigenous people | <ul style="list-style-type: none"> Non-resident indigenous or other land-connected peoples who may have a spiritual attachment to the land |
| Non-government organisations (NGOs) | <ul style="list-style-type: none"> Local, national and international NGOs interested in ecological or heritage values that may be influenced by a project |
| Other Stakeholders | <ul style="list-style-type: none"> Project related contractors, regulatory agencies, local and regional and national government, funding or development agencies |

Figure 4.1 Stakeholders likely to be involved with a project (Modified after Vanclay, 2015)

4.3 METHODOLOGY FOR PREPARING THE SIA

4.3.1 Existing social baseline

A key component in the development of the social baseline for the assessment of the Project was the collation and interpretation/analysis of demographic data. Analyses undertaken related to:

- Indicator identification and selection to afford appropriate assessment of social impacts relating to the Project;
- Comparative analysis of different communities relevant to the Project; and
- Longitudinal/time-series analysis of population data.

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Table 4-2 Stakeholder list

| Stakeholder Group | Stakeholder |
|---|--|
| Cleary Bros workforce | Direct Employees |
| Community | In this report, 'community' refers to a conceptual geography not necessarily aligned to actual suburb boundaries but includes (and is not limited to) the State Suburbs of Croom, Albion Park Rail, and Shell Cove. Property owners, tenants and real estates in the area surrounding the Project Area, including (but not limited to) the State Suburbs of Croom, Albion Park Rail, and Shell Cove. |
| Community (other) | Cleary Bros Community Consultative Committee Illawarra Local Aboriginal Land Council |
| Emergency services | NSW Police, Tongarra Road, Albion Park. Lake Illawarra State Emergency Service – Tongarra Road, Albion Park Ambulance NSW – Captain Cook Drive, Mount Warrigal NSW Rural Fire Service - Airport Road, Albion Park Rail NSW Fire and Rescue Brigade – Russell Street, Albion Park |
| Government - State | NSW DPIE NSW Local Land Services Department of Primary Industries NSW Environment Protection Authority NSW Department of Transport NSW Natural Resource Access Regulator |
| Government-elected representatives | NSW Premier Minister for Planning, Industry and Environment Local council mayor and councillors Local MPs |
| Local business and industry | Local businesses Albion Park Chamber of Commerce Illawarra Regional Airport Illawarra Shoalhaven Joint Organisation Cleary Bros suppliers and customers |
| Local Council | Shellharbour City Council |
| Nearby neighbours | Adjacent and directly affected properties and businesses including the five properties that share a fence line with the property containing the Project |
| Projects / industry | Albion Park Rail Bypass (Transport for NSW / Fulton Hogan) Boral Dunmore Quarry Sydney Trains Bombo Quarry Dunmore Sand and Soil Quarry Holcim Australia – Albion Park Quarry Hanson's Bass Point Quarry |
| Road users | Existing highway (e.g. A1 Princes Highway), motorway and local road users Pedestrians and cyclists using the new motorway Local taxi, bus, tour and transport operators |
| Utilities and service providers | TransGrid Jemena Networks and Eastern Gas Pipeline Sydney Water Endeavour Energy Telstra Optus TPG NBNSCo Sydney Trains and Railcorp |
| Wider community | Local residents and businesses in Shellharbour City LGA |

The unit of analysis for the regional context is the Illawarra Shoalhaven region, as defined by the Draft NSW Government Illawarra Shoalhaven Regional Plan 2041 (NSW Department of Planning and Environment, 2020). The local contexts are:

- Shellharbour-Flinders SA2 (Statistical Area 2); and
- Albion Park Rail SA2.

These areas are considered most reflective of the proximal community and local residents/landholders that immediately surround the Project Area. Shellharbour City LGA (SCLGA) and NSW are analysed, where possible, for comparative purposes.

A wide range of social indicators were considered prior to conducting the statistical analysis and developing the existing social baseline. The selection of social indicators was made primarily based on those contained in the Shellharbour City Community Strategic Plan 2018-2028 (Shellharbour City Council, 2018). The strategic plan is Shellharbour City Council's (SCC) primary corporate community strategy, developed with community input. It was therefore logical to use complimentary indicators in the baseline. This selection method provided confidence that the social indicators represented the health and wellbeing values, and interests of the communities (Vanclay, 2015) surrounding the Project Area. Each social indicator and its relevance to the four focus areas contained in Council's plan, is outlined in **Table 4-3**.

Table 4-3 Relationship between social indicators and SCC Community Strategic Plan 2018-2028 (Shellharbour City Council, 2018)

| Focus area listed in the SCC Community Strategic Plan 2018-2028 | Relevant social indicators |
|--|--|
| Community | Community profile Population Projects Family composition Indigenous population Place of birth multiculturalism Education, employment and training Educational status Voluntary work Health Statistics (PHIDU) |
| Economy | Employment by industry Weekly income, individual and household SEIFA |
| Leadership | Election participation rates Council Community Survey |

4.4 EXISTING SOCIAL INFRASTRUCTURE

Social infrastructure refers to facilities and services that enhance the social capacity of communities and may include infrastructure related to health, housing, youth, aged care, leisure, community safety facilities and road safety (Franks, 2012).

As with the social indicators presented above, the social infrastructure identified in areas surrounding the Project Area prior to approval will provide a reference point against which social impacts may be measured, if the Project proceeds. Such impacts can take the form of a decrease in the quantity, diversity, or capacity of the existing social infrastructure, courtesy of demand from an expanded workforce and their relatives relocating to an area. Conversely, an influx of staff and their families, or changes to the footprint of a project may stimulate new social attributes of the communities, bolster organisational capacities, and contribute to the supply of services.

Considering the nature of the Project it is not considered necessary to undertake a comprehensive detailed assessment of current social infrastructure. If approved, there would be no changes to the current workforce, instead, approximately 27 employees and contractors would continue to be directly involved in extraction and processing operations at the Quarry. An online desktop search was the method used to determine the existing social infrastructure associated with the Project. Data was sourced from a range of websites outlined below, and the results are provided in Section 5.3

Data source included:

- SCC website (Shellharbour City Council, 2020);
- SCC Community Directory (Shellharbour City Council, 2020);
- NSW Department of Education (NSW Department of Education, 2020);
- NSW Health (NSW Health, 2020); and
- NSW National Parks and Wildlife Service (NSW National Parks and Wildlife Service, 2020).

4.4.1 Social impact assessment methods

A range of methods were selected for the SIA to address one or more of the matters determined by the DPIE scoping tool, to require further social impact investigations (see **Attachment 2**). **Table 4-4** lists the relevant social impact categories, methods selected for the SIA, and the applicable level of assessment. Each method is thoroughly described beneath **Table 4-4**.

Table 4-4 SIA assessment methodology used to address one or more of the matters determined by the DPIE scoping tool

| Social Impact Categories | Method | Level of Assessment for SIA |
|---|--|-----------------------------|
| Way of life, Livelihoods, Health and wellbeing | Semi-structured interviews and surveys | Standard |
| Way of life, Livelihoods, Health and wellbeing, decision making systems | Exploratory research | Standard |
| Surroundings, Culture, Way of life, Health and wellbeing, decision making systems | Desktop analysis based on specialist studies | Desktop integration |

4.4.1.1 Semi-structured interviews and online survey

Interviewing and conducting surveys was selected as a SIA method to further explore the amenity impacts of the Project and to collect data, evidence and insights for those stakeholders nearest to the Project Area. The semi-structured interview format provided a flexible structure which allowed the interviewer to create and ask questions about situations as they emerged, and the interviewee to digress and express views freely (Vilela, 2018). Where it wasn't possible to conduct semi-structured interviews, an alternative methodology was provided in the form of online surveys.

The work of Bradshaw and Stratford (2005) with regard to qualitative research design and rigour, was helpful in designing the semi-structured interview methodology and the online survey. The authors provide guidance in relation to participant selection and sampling. Their work explains that in qualitative research, the number of people we interview, communities we observe, or texts we read, is less important than the quality of who or what we involve in our research, and how we conduct that research. Their work emphasises that 'purposive' sampling is typical in this type of research, and that the sample is not intended to be representative given the emphasis is usually on the analysis of meanings.

4.4.1.2 Exploratory research

Exploratory research involves familiarising a researcher with a topic to satisfy curiosity and improve understanding. Exploratory research is often conducted in areas of inquiry, where the goals of the research are "to scope out the magnitude or extent of a particular phenomenon, problem, or behaviour, to generate some initial ideas (or "hunches") about that phenomenon, or to test the feasibility of undertaking a more extensive study regarding that phenomenon (Bhattacharjee, 2012). For instance, if a community is generally dissatisfied with the operations of a business or government body, exploratory research may be directed at measuring the extent of dissatisfaction or frequency of complaints, and the presumed cause of such complaints.

For the purpose of this assessment, research has included the examination of recorded complaints at the Quarry, interviews with nearby neighbours and wider community, and from comparative analysis of similar operations. This research assists with scoping out the nature and extent of the problem and serving as a useful precursor to more in-depth research, if required.

4.4.1.3 Desktop analysis based on specialist studies

The term desktop analysis refers to a study that is carried out primarily through integration of technical assessments into the SIA, rather than physical investigations, that is, it can be done sitting at a desk. For the purpose of this assessment, several social impacts, including cumulative impacts have been mostly assessed in other technical studies in the EIS, and a desktop analysis has been undertaken to cross-reference and integrate those studies into the SIA Report. This methodology is then further complemented by methodologies outlined previously such as qualitative assessment and research methodology to provide additional supporting evidence.

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4.4.2 Risk assessment

Impacts are evaluated according to the social risk matrix contained in Section 2.3.3 of the Technical Supplement to support the Social Impact Assessment Guideline for State-significant projects (DPIE, 2021). The tables used to evaluate the likely significance of both positive and negative social impacts and inform the likely significance of each impact before and after mitigation or enhancement are in **Attachment 3**.

Prioritising impacts in this integrated manner makes sure that appropriate assessment and mitigation strategies can be developed that not only address impacts that may require more technical management, but also those impacts that are perceived by stakeholders as of high risk/importance/concern. These perceived concerns are just as important to manage, as they have the potential to result in elevated levels of community concerns, complaints and grievances if not addressed appropriately.

4.5 ENGAGEMENT TOOLS

Table 4-5 provides an overview of the tools used to achieve the desired SIA consultation outcomes and the timing.

Table 4-5 Engagement tools and timing

| Consultation Tool | Stakeholder Group | Description | Timing |
|---|---|---|--|
| Community Consultative Committee (CCC) | Nearby neighbours' Local residents / properties Council | Cleary Bros has established and runs a CCC for the Quarry and the CCC meets biannually. The forum has been used throughout both the planning process and EIS phase to share information about the Project, seek feedback and answer questions. The most recent meeting on 22 July 2021 presented the findings of the EIS. | Dates of meetings include 25 July 2019, 5 December 2019, 23 July 2020, 3 December 2020, 22 July 2021 2 December 2021. (six in total) |
| Interview | Nearby neighbours | Semi-structured interviews with the stakeholders identified as 'nearby neighbours' (5 private properties and 1 business) | Late November 2020 and the end of January 2021 |
| Online survey and survey tool | All stakeholders | An online survey to ascertain feedback from the community was shared with nearby neighbours, as well as through local community groups (Albion Park Chamber of Commerce), Council and on Cleary Bros website and Social Media platforms (44 total responses with 8 completed responses) | 11 December 2020 to 10 February 2021 |
| Personal meetings | Nearby neighbours | Meetings with nearby neighbours at their residence (or common meeting area), to provide personalised opportunities for engagement and provision of information regarding the Project. These were attended by Cleary Bros and technical staff. (5 private properties) | July 2019 |

| Consultation Tool | Stakeholder Group | Description | Timing |
|---|--------------------------|---|---|
| Project factsheet (FAQs) | All stakeholders | A fact sheet to introduce the Project during the early phase of assessment and to provide a summary of the assessment. This was shared with nearby neighbours, as well as through local community groups (Albion Park Chamber of Commerce), SCC and on Cleary Bros website and social media platforms | December 2020 |
| Government briefings | Government stakeholders | Meetings with relevant local, state and Commonwealth government agencies to provide an overview of the Project and Project parameters, to discuss the assessment process and other relevant matters | Specific to the SIA, meetings were held with DPIE (BCD) on 24 November 2020, and DAWE on 15 December 2020 |
| Information tools | | | |
| Cleary Bros website / social media | All stakeholders | Cleary Bros social media platforms were used to increase participation and reach in the EIS and SIA engagement | |
| Email and phone correspondence | All stakeholders | Various phone calls and emails relating to the SIA process to stakeholders, as required, to organise meetings, provide information and/or respond to questions relating to the SIA process | |

4.6 EXISTING COMPANY ENGAGEMENT

Cleary Bros has an ongoing community engagement program which involves a range of information provision and engagement mechanisms that include personal meetings and telephone liaison; CCC meetings; key stakeholder meetings and briefings; a community complaints line; and company website.

Through implementation of their ongoing engagement program and established relationships, Cleary Bros has developed a good understanding of key community issues in relation to their activities which were considered in planning for the Project. Outputs of the previous consultation activities have therefore been used to inform planning and the development of the specific stakeholder and community engagement program for the Project and the SIA program. **Table 4-6** provides a concise summary of all stakeholder engagement currently undertaken at the Quarry.

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Table 4-6 Stakeholder engagement for the Project

| Consultation Tool | Description |
|---|--|
| Personal meetings | Meetings with stakeholders at their residence (or common meeting area), providing personalised opportunities for engagement and provision of information |
| Letterbox drops | Information delivered by Cleary Bros so that specific information reaches its intended recipients |
| Contact phone number | All stakeholders were provided with a direct line to Cleary Bros for any queries or information requests. Community contact phone number also available on Cleary Bros website and displayed at entrance to Quarry. |
| Cleary Bros website / social media | Website and social media updated to provide information about Cleary Bros operations, community investment, environmental monitoring results and contact information |
| CCC | CCC for the Quarry that meets biannually. The forum provides a means for open discussion between Cleary Bros, the community, and SCC |
| Email and phone correspondence | Phone calls and emails relating to the SIA process to stakeholders, as required, to organise meetings, provide information and/or respond to questions relating to the SIA process |
| Site tours | Cleary Bros invite the members of the CCC to view activities at the quarry on a regular basis. Given the safety requirements and controls in place at the quarry, site tours are generally not provided to members of the community. |
| Community investment initiatives | <p>Cleary Bros supports a range of initiatives at a local community level and is proud of its history in the Illawarra and South Coast of NSW. Its founders, the Cleary family, have a strong commitment to giving back to the community and ensuring their company's legacy lives on. Initiatives include:</p> <ul style="list-style-type: none"> ▪ Cleary Bros private museum at Port Kembla where significant quarrying, earth moving and construction machinery from the past have been lovingly restored and housed. The museum is opened to the public once a year for the community to visit and share with their families the historic machines. ▪ Contributions to other historical associations in the region, including the Historical Aircraft Restoration Museum, the Illawarra Motoring Museum, the Illawarra Light Rail Museum and the Illawarra Live Steamers; and ▪ Local sporting groups, including local rugby league (Kiama Sevens) and Premier League franchise netball (South Coast Blaze) owned by the Kiama, Illawarra and Shoalhaven netball associations which promotes pathways for elite netballers in our local region. ▪ Local charities including the Illawarra i98 Convoy) of which Cleary Bros has been a major sponsor since it was founded in 2005. ▪ Ongoing sponsorship of the Group 7 Referees Association that has extended over 35 years. ▪ Contributions towards the Kiama Show for over fifty years, specifically the Woodchopping Competition. ▪ Small sponsorships towards MS Gong Ride, Kids Express and Movember. |

5 SOCIAL BASELINE

This Section presents the social baseline for the Project and describes the social context without the Project.

It documents the existing social environment, conditions and trends relevant to the Project and defines characteristics of the communities within the Project's social locality, including any vulnerable groups. It considers any built or natural features on or near the Project Area that could be affected and also the intangible values that people may associate with these features. Examples may include a sense of place or belonging and the relevant social, cultural, demographic trends or social change processes occurring now or in the past near the Quarry and in the broader region. Relevant to this discussion are changing employment patterns, shifting land uses or population and demographic changes, and how people have felt or experienced these changes.

The social baseline provides a point of comparison – it can be used as reference against which to measure the impacts of the Project as it develops, and/or to determine the adequacy or otherwise of existing facilities (Vanclay, 2015). All data used in the baseline is derived from the 2016 Australian Census of Population and Housing (Australian Bureau of Statistics, 2021) unless an alternate source is cited.

The unit of analysis for the regional context is the Illawarra Shoalhaven region, as defined by the Draft NSW Government Illawarra Shoalhaven Regional Plan 2041 (NSW Department of Planning and Environment, 2020).

The local contexts are defined in **Section 3.2**. A comparison to SCC LGA and NSW data is provided where possible.

5.1 REGIONAL CONTEXT

This region, as defined by the Draft NSW Government Illawarra Shoalhaven Regional Plan 2041, comprises Wollongong, Shellharbour, Kiama and Shoalhaven LGAs.

The Illawarra Shoalhaven region is a narrow coastal region served by rail and road which connects the region north to Sydney, south to the South Coast and to the Southern Highlands in the west. It plays host to an international trade gateway at Port Kembla and a university with global reach in the University of Wollongong. Wollongong is the major regional city in the region and the third largest in NSW. The area also hosts the regional cities of Nowra and Shellharbour that drive prosperity and liveability.

The region is characterised by more urban centres with higher density populations along the east coast, and more dispersed settlements outside the Wollongong metropolitan area. In terms of population, 420,381 residents were recorded in 2019, and this is expected to increase to 504,910 by 2041, when a quarter of the population will be aged over 65 years of age.

Age and sex data are presented in **Table 5-1** and provide a contrast between each Illawarra Shoalhaven region LGA population and the NSW population during 2019. All of the LGAs had similar proportion of males and females, with the median age in Wollongong and Shellharbour being lower when compared to NSW, while Shoalhaven and Kiama had a higher median age when compared to NSW.

Table 5-1 Age and sex comparison, Illawarra Shoalhaven Vs NSW (June 2019)

| LGA | Population | Proportion of males | Proportion of Females | Median Age |
|---------------------|-------------------|----------------------------|------------------------------|-------------------|
| Wollongong | 218,114 | 49.7 | 50.3 | 37.8 |
| Shellharbour | 73,233 | 49.2 | 50.8 | 38.5 |
| Shoalhaven | 105,648 | 49.7 | 50.3 | 47.5 |
| Kiama | 23,386 | 49.2 | 50.8 | 46.4 |
| NSW | 8,089,817 | 49.6 | 50.4 | 42.2 |

Employment in the Illawarra Shoalhaven region (based on 2016 Census statistics) is marginally weaker compared to the NSW State data. There were 175,650 people who reported being in the labour force in the week before Census night in the Illawarra Shoalhaven district. Of these, 54.2% were employed full time, 33.7% were employed part-time and 6.8% were unemployed. The proportion of people who were unemployed was highest in Wollongong (7.1%) and lowest in Kiama (4.4%).

Employment, health care, education and retail facilities are mainly located in the Wollongong Central Business District and surrounding urban areas, including Warrawong, Dapto and Shellharbour. The health care and social assistance industry employed most people and accounted for 14.6% of the regional population during 2016. Other major industries of employment included construction (10.6%), retail trade (10.4%) and education and training (10.0%)

Since the last census for the region in 2016, the region has experienced drought, floods, an unprecedented bushfire season that impacted 80 per cent of Shoalhaven LGA and the COVID-19 pandemic. It is anticipated that these events will have an impact on the economy, infrastructure, social systems, the natural environment and the wellbeing of people and communities across NSW.

The Draft Illawarra Shoalhaven Regional Plan 2041 considers these statistics alongside projected population growth and change and other social indicators to shape the direction of its strategic planning. It considers the regional cities of Shellharbour and Nowra as locations for economic productivity, housing choice and cultural activities. It considers the global gateway of Port Kembla as providing connectivity between the Illawarra Shoalhaven and the rest of the world through its export of bulk commodities and importation of motor vehicles.

In terms of transport, it is anticipated that connectivity to the new Western Sydney International Airport will drive innovative economic opportunities and see an increase in visitors to the region.

5.2 LOCAL CONTEXT

5.2.1 Geographic context, land ownership and use

The Project Area is situated in the Shellharbour City LGA in the Illawarra Shoalhaven Region of NSW. The region has formed around the centres of Albion Park to the west and Shellharbour

to the east, and is comprised of the lakeside suburbs around Lake Illawarra including Albion Park Rail and Warilla to the north, and Shell Cove on its eastern coastline, as well as the rural localities of Macquarie Pass to the west and Dunmore to the south.

The Princes Highway runs through the area from the north to the southeast. The South Coast Rail Line runs through the area close to the highway, and the Illawarra Regional Airport is located in Albion Park Rail to the northwest.

The current extraction area and Stage 7 extension area are located wholly within an area identified as Significant Extractive Resources – State and Regional Mineral Resources and as a Mineral Resource Area under the Shellharbour LEP 2013. This area has been recognised as strategically important for the supply of high-quality construction materials for the Sydney and Illawarra Regions.

Stages 1 to 6 and the Stage 7 extension area are located on land owned by Bridon Pty Ltd, an associated entity of Cleary Bros (Bombo) Pty Ltd. A number of private land holdings are present to the north, east and southeast of the application area and west and south of the Princes Highway. These properties typically vary in area from 1.7ha to 89ha. Land to the south and west of the Project Area are owned by other quarrying companies, with active quarries present in these areas.

Transport for NSW (formerly NSW Roads and Maritime Services) has acquired property adjacent to the East-West Link for the Princes Motorway bypass of Albion Park, which is currently under construction.

The land uses within the Cleary Bros property comprise hard rock extraction and processing, product stockpiling and despatch, concrete manufacture, VENM recycling, and cattle grazing.

The Stage 7 extension area is located within a rural area where single residences are located on rural and semi-rural lifestyle properties. There are also sections of the low-medium density residential development within the nearby suburbs of Albion Park Rail, Blackbutt and Flinders. The increase in residential development in this area in recent years has been accompanied by the construction of a new railway station on the South Coast line (Shellharbour Junction) and other community facilities such as schools (e.g. Shellharbour Anglican College). Construction of residences is currently underway immediately east of Shellharbour Junction Railway Station and is likely to continue adjacent to Dunmore Road.

5.2.2 Surrounding land uses

Historically, the area within the defined Mineral Resource Area was a dairy farming district extending from the Wentworth Hills east to the coast. This area has largely been cleared of native vegetation and comprises a combination of exotic grassland used for grazing, with remnant vegetation remaining on steeper slopes and within gullies.

The Significant Mineral Resource Area encompasses most of the land west of the Princes Highway and south of the East-West Link. As a result, companies engaged in the extractive industries, namely Cleary Bros, Boral, Holcim, Hanson and RailCorp, own most of this land.

Residential development nearby the Quarry also includes the suburbs of Mount Terry and Albion Park. These suburbs are between 2 km and 4.5 km from the Quarry. Surrounding land uses are primarily rural, rural residential and industrial.

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Land uses in the community are varied and include:

- Commercial, industrial and extractive lands, including quarries, industrial estates and the Illawarra Regional Airport;
- Agricultural land, including dairy and cattle farming, and agistment;
- Residential areas comprised of rural, low density and medium density residential lands;
- Open space areas such as sporting fields and reserves;
- Utilities and services including power utility infrastructure; and
- Transport infrastructure including roads, and the South Coast Rail Line as above.

Figure 5.1 illustrates land use surrounding the Project.

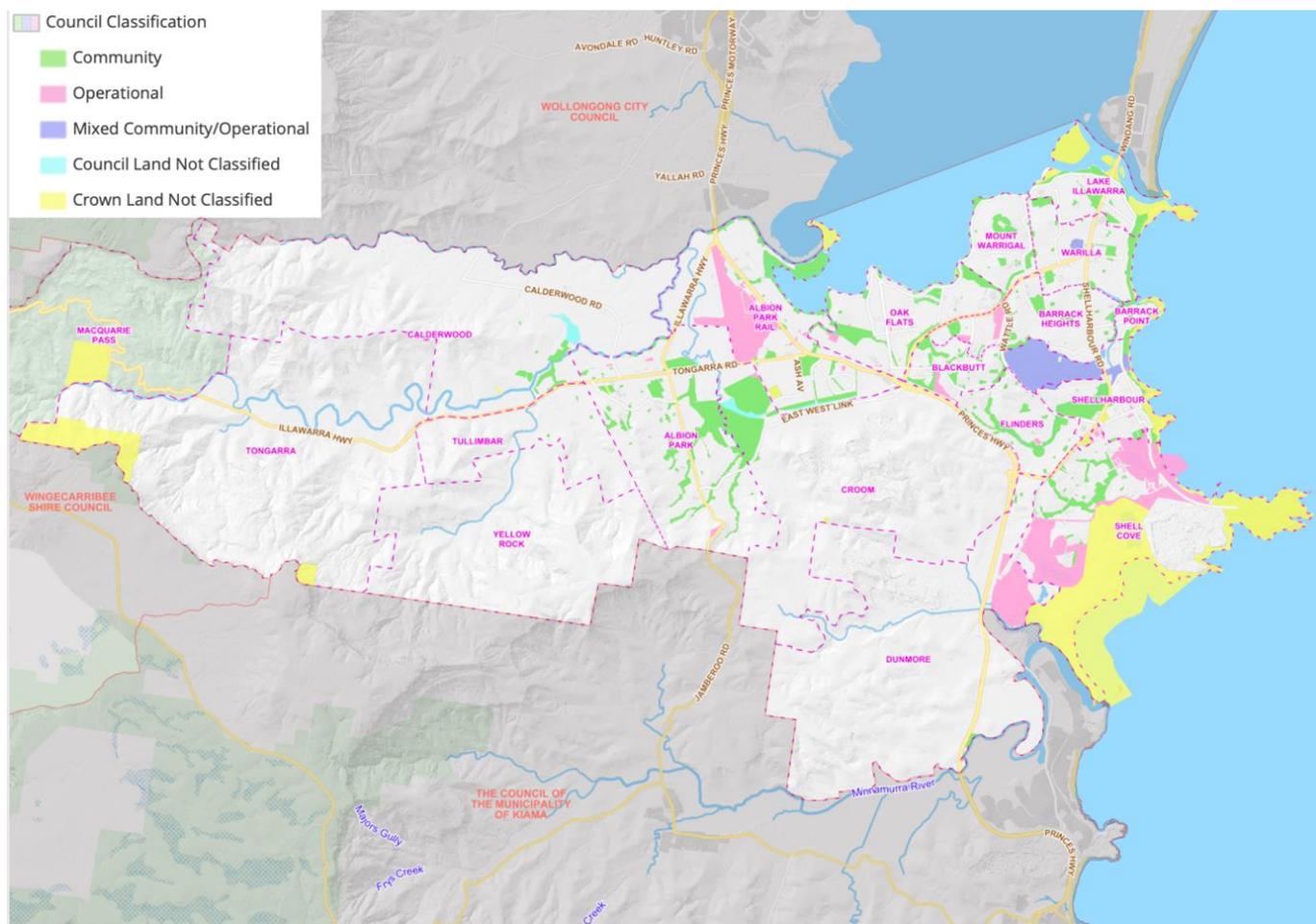


Figure 5.1 Surrounding land uses

Source: Shellharbour City Council website: <https://www.shellharbour.nsw.gov.au/>

5.2.3 Community Profile

5.2.3.1 Community snapshot

Data from the 2016 census provides a snapshot of the community profile in the local area and allows for a comparison of the Albion Park Rail and Flinders-Shellharbour SA2 in respect to a range of social indicators (**Table 5-2**).

Table 5-2 Social indicators

| Characteristic | Albion Park Rail SA2 | Shellharbour Flinders SA2 | Shellharbour LGA | NSW |
|---|----------------------|---------------------------|------------------|-----------|
| Population | 6,918 | 16,826 | 68,460 | 7,480,228 |
| Male | 48.8% | 49.6% | 48.9% | 49.3% |
| Female | 51.2% | 50.4% | 51.1% | 50.7% |
| Median age (years) | 40 | 37 | 39 | 38 |
| Families | 1,915 | 4,693 | 18,954 | 1,940,226 |
| Average children per families with children | 1.8 | 2.0 | 1.9 | 1.9 |
| Average people per household | 2.6 | 3.0 | 2.7 | 2.6 |
| Median weekly household income | \$1,198 | \$1,817 | \$1,343 | \$1,486 |
| Median monthly mortgage repayments | \$1,700 | \$2,167 | \$1,846 | \$1,986 |
| Median weekly rent | \$320 | \$420 | \$340 | 380 |
| Average motor vehicles per dwelling | 1.9 | 2.1 | 1.9 | 1.7 |

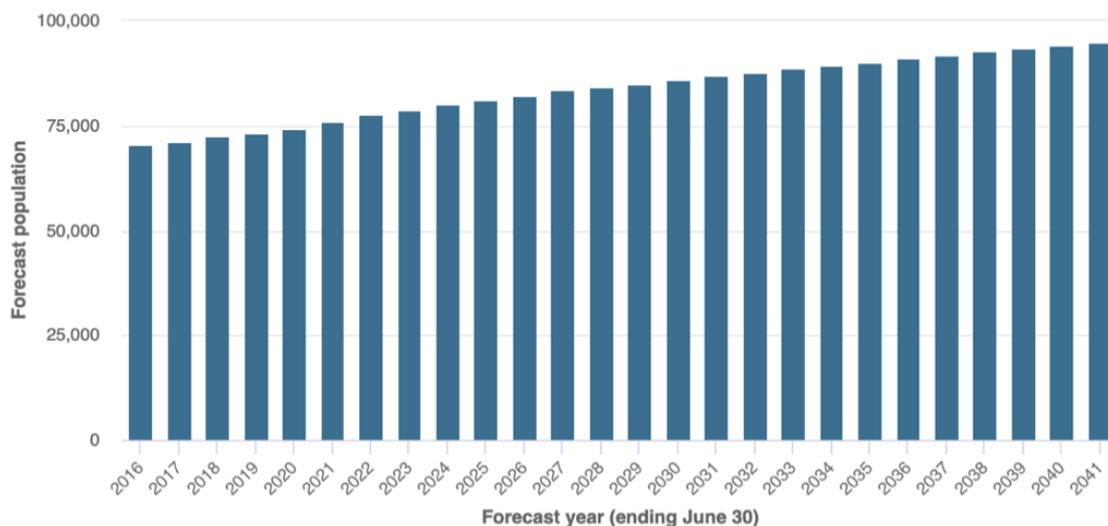
The populations do not differ markedly in terms of gender nor of median age in comparison to broader NSW. The composition of families in terms of children per family is also similar in both of the local areas and on trend with NSW ranging from 1.8 to 2, with NSW averaging 1.9. This is not surprising given the similar median age across the local areas, LGA and NSW.

The median weekly household income for Flinders-Shellharbour is relatively higher than the other areas, and almost 30% higher than Albion Park Rail. This higher weekly income is also representative of both the higher median monthly mortgage repayments in this area and median weekly rent, when compared to NSW, Shellharbour LGA and Albion Park Rail.

5.2.3.2 Population projections

During 2016, the SCLGA population was 68,460 and is forecast to grow to 94,877 by 2041. Total households and implied dwellings will follow the growth trajectory predicted for the population. The rate of growth in each case is predicted to plateau slightly from 2031. **Figure 5.2** illustrates these projections. It should be noted that these projections do not consider potential impacts to assumptions stemming from COVID-19. They do, however, provide a base line by which to understand where the population may have been without this pandemic.

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Population and household forecasts, 2016 to 2041, prepared by .id, September 2018.



Figure 5.2 Population projections

5.2.3.3 Indigenous population

Data in **Table 5-3** indicates the median age of the Indigenous populations nearest to the Project are similar and slightly younger than that of the NSW equivalent. The Albion Park Rail SA2 has both a higher proportion of Indigenous people residing in the area, a greater percentage of which are female.

Table 5-3 Aboriginal and/or Torres Strait Islander peoples

| Characteristic | Albion Park Rail SA2 | Shellharbour Flinders SA2 | Shellharbour LGA | NSW |
|--------------------|----------------------|---------------------------|------------------|------|
| % of Population | 5.0 | 2.6 | 3.8 | 2.9 |
| Male | 45.5 | 49.5 | 48.8 | 49.7 |
| Female | 54.5 | 50.5 | 51.2 | 50.3 |
| Median age (years) | 20 | 20 | 20 | 22 |

5.2.3.4 Place of birth

A notably greater percentage of people residing nearest to the Project Area were born in Australia when compared to NSW (77.4% in the Shellharbour City LGA compared to 65.5% in NSW). The most common countries of birth outside of Australia in the Shellharbour LGA were England 4.6%, The former Yugoslav Republic of Macedonia 1.2%, New Zealand 0.9%, Germany 0.8% and Scotland 0.8%. The data in **Table 5-4** demonstrates there is not a major contrast between the proportions of residents born in these foreign locations, in Shellharbour LGA or NSW more broadly.

Table 5-4 Birthplace of residents

| Birthplace | Albion Park Rail SA2 | Shellharbour Flinders SA2 | Shellharbour LGA | NSW |
|---|----------------------|---------------------------|------------------|------|
| Australia | 79.3 | 78.3 | 77.4 | 65.5 |
| England | 5.4 | 3.8 | 4.6 | 3 |
| The former Yugoslav Republic of Macedonia | - | 1.6 | 1.2 | 0.2 |
| New Zealand | 0.8 | 1 | 0.9 | 1.6 |
| Germany | 0.6 | - | 0.8 | 0.4 |
| Scotland | | 0.9 | 0.6 | 0.8 |

5.2.3.5 Multi-culturalism

Non-English languages spoken at home in **Table 5-5** provide an indicator of multi-culturalism in communities. Contrasting language profiles were reported in the Community. Macedonian, Italian and Spanish were reported by residents in both SA2 areas as being among the popular non-English languages spoken at home. An obvious departure from the NSW non-English language profile is evident in these areas, with none of the NSW four most common languages spoken at home (other than English) featuring in the study areas (Mandarin, Arabic, Cantonese, and Vietnamese).

English is the dominant language in the study area and the percentage of homes where English is only spoken at home averages greater than 10 percent higher across the study area than that of NSW.

Table 5-5 Non-English languages spoken at home

| Non English language spoken at home | Albion Park Rail SA2 | Shellharbour Flinders SA2 | Shellharbour LGA | NSW |
|-------------------------------------|----------------------|---------------------------|------------------|------|
| Macedonian | 0.5 | 3.6 | 2.2 | 0.3 |
| Italian | 0.3 | 0.9 | 0.8 | 1.2 |
| Spanish | 0.8 | 0.9 | 1.1 | 0.6 |
| Turkish | 0.1 | 0.5 | 0.5 | 0.2 |
| English only spoken at home | 88.8 | 83 | 84.7 | 72.7 |

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5.2.3.6 Employment

Employment status data derived from the Census and reproduced in **Table 5-6** indicates that participation in the workforce was higher in the Shellharbour – Flinders SA2 than Albion Park Rail SA2. Almost a quarter of the parents in couple families were not working in Albion Park Rail SA2 at the time of census (23.4%), compared to the NSW average of 21%.

In Shellharbour City LGA of couple families with children, 17.2% had both partners employed full-time, 3.4% had both employed part-time and 23.7% had one employed full-time and the other part-time.

In Shellharbour City LGA of people aged 15 years and over, 69.4% did unpaid domestic work in the week before the Census. During the two weeks before the Census, 32.1% provided care for children and 13.7% assisted family members or others due to a disability, long term illness or problems related to old age.

Table 5-6 Employment status

| Employment Status of Parents in Couple Families | Albion Park Rail SA2 | Shellharbour Flinders SA2 | Shellharbour LGA | NSW |
|--|----------------------|---------------------------|------------------|------|
| Both employed, worked fulltime | 16.4 | 20.4 | 17.2 | 22.6 |
| Both employed, worked part-time | 2.9 | 3.6 | 3.4 | 4 |
| One employed full-time, one part-time | 22.5 | 26.2 | 23.7 | 20.6 |
| one employed full-time other not work | 15.3 | 14 | 14.4 | 15 |
| one employed part-time, other not working | 7.2 | 4.9 | 5.8 | 6.1 |
| both not working | 23.4 | 20.3 | 24.9 | 21 |
| other (includes away from work) | 5.2 | 5.4 | 5.3 | 5.1 |
| Labour force status not stated (by one or both parents in a couple family) | 4.5 | 5.1 | 5.3 | 5.7 |

5.2.3.7 Status of industry

The industries that provide most employment opportunities for the Albion Park Rail and Shellharbour – Flinders workforces are identified in **Table 5-7**. It is not surprising that social assistance services such as aged care facilities and the Shellharbour hospital feature predominately in the area. This will only continue to grow with the new \$700M Shellharbour Hospital redevelopment.

Iron smelting and steel manufacturing, along with coal mining also feature predominately in the statistics which is consistent with the land use of the area.

Table 5-7 Industry of employment

| Albion Park Rail SA2 | % | Shellharbour Flinders SA2 | % | Shellharbour LGA | % |
|--|-----|--|-----|--|-----|
| Aged Care Residential Service | 4 | Hospitals (except Psychiatric Hospitals) | 4 | Hospitals (except Psychiatric Hospitals) | 3.7 |
| Supermarket and Grocery Stores | 3.9 | Iron Smelting and Steel Manufacturing | 3.6 | Iron Smelting and Steel Manufacturing | 3.2 |
| Other Social Assistance Services | 3.8 | Primary Education | 3 | Supermarket and Grocery Stores | 3.1 |
| Hospitals (except Psychiatric Hospitals) | 3.7 | Supermarket and Grocery Stores | 2.4 | Aged Care Residential Services | 3.1 |
| Takeaway Food Services | 3.1 | Coal Mining | 2.4 | Other Social Assistance Services | 2.5 |

5.2.3.8 Income

Income in the area provides a contrast of the two SA2s, with Albion Park Rail being considerably lower when compared to NSW across all income's types, while the Shellharbour – Flinders SA2 are considerably higher. Shellharbour – Flinders SA2 was also considerably higher when compared to the Shellharbour LGA, which lends to the area being a more affluent area within the LGA. **Table 5-8** contains income data.

Table 5-8 Median weekly income for people aged 15 years and over

| Income type | Albion Park Rail SA2 | Shellharbour Flinders SA2 | Shellharbour LGA | NSW |
|-------------|----------------------|---------------------------|------------------|---------|
| Personal | 550 | 696 | 579 | 664 |
| Family | 1364 | 1972 | 1562 | 1780 |
| Household | \$1,198 | \$1,817 | \$1,343 | \$1,486 |

5.2.3.9 Education

Educational attainment data associated with the local populations is contained in **Table 5-9**. It shows that data for the local populations differs significantly and that lower proportions of the local population attained a bachelor's degree level qualification compared to NSW, with Flinders-Shellharbour (16.1%) being the highest in the local area, compared to 23.4% in NSW. There was also a lower level of completion of year 12 across the local areas when compared to NSW, however, a higher percentage had completed a certificate level III or IV.

The strength of labour-based industries in the area such as steel and manufacturing and to a degree, coal mining is perhaps one explanation for this pattern. These industries would typically require a workforce with practical skills obtained through trade certificates and apprenticeships, rather than through university programs.

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Table 5-9 Educational attainment

| Level of education attainment | Albion Park Rail SA2 | Shellharbour Flinders SA2 | Shellharbour LGA | NSW |
|------------------------------------|----------------------|---------------------------|------------------|------|
| Bachelor's degree level and above | 6.6 | 16.1 | 10.4 | 23.4 |
| Advanced Diploma and Diploma level | 7.4 | 10.5 | 8.6 | 8.9 |
| Certificate level IV | 4.1 | 4.1 | 3.9 | 2.8 |
| Certificate level III | 20.1 | 18.3 | 18.9 | 12 |
| Year 12 | 10.9 | 12.6 | 11.6 | 15.3 |
| Year 11 | 3.9 | 4 | 4.1 | 3.3 |
| Year 10 | 18 | 14.7 | 17.1 | 11.5 |
| Certificate level II | 0.1 | 0.1 | 0.1 | 0.1 |
| Certificate level I | 0.1 | 0 | 0 | 0 |
| Year 9 or below | 11.8 | 8.2 | 11.4 | 8.4 |
| No educational attainment | 0.6 | 0.3 | 0.5 | 0.9 |
| Not stated | 12.3 | 7.6 | 9.9 | 10.3 |

5.2.3.10 Community networks

By looking at volunteering, we can get a sense of the strength and cohesion of a community. Volunteering Australia notes that volunteers were much more likely to be involved in other aspects of community life than non-volunteers.

It also notes that volunteering is a form of civic participation that creates 'bridging networks' (i.e. broad networks of loose connections to people from diverse backgrounds), which generate positive social practices that strengthen communities (by fostering positive social norms; spreading information and innovation).

There are similar proportions of the population 15 years and above, who have undertaken 'voluntary work for a group or organisation in the census period across all of the study areas. Shellharbour – Flinders SA2 has the greatest percentage of participation (16.6%) when compared to both Albion Park Rail SA2 and the Shellharbour LGA (14.2% and 14.7%). However, all study areas reported a lower rate of volunteering when compared to NSW (18.1%).

5.2.3.11 Socio-economic index

Socio Economic Indexes for Areas (SEIFA) is a suite of indexes that have been created by the Australian Bureau of Statistics from social and economic Census information. Each index ranks geographic areas across Australia in terms of their relative socio-economic advantage and disadvantage.

The Index of Relative Socioeconomic Disadvantage (IRSD) is a general socio-economic index that summarises a range of information about the economic and social conditions of people and households within the Shellharbour LGA. This index includes only measures of relative disadvantage; A low SEIFA score indicates relatively greater disadvantage in general. For example, an area could have a low score if there are (among other things) many households with low income, many people with no qualifications, or many people in low skill occupations. Conversely, a high SEIFA score indicates a relative lack of disadvantage in general.

The SEIFA score for Shellharbour LGA in 2016 was 976 which ranks it in the third quintile. The scores for the smaller subset geographical areas differ again, with Albion Park Rail scoring 940 and falling in the first quintile, and Shellharbour – Flinders much higher, achieving 1043 and falling in the fourth quintile.

Table 5-10 provides the overall socio-economic status and level of disadvantage within each community. It should be noted that no comparison can be made between LGAs and the SA2 levels on ranking, as rankings are only comparative within each geographic classification. Based on this index, the data indicates that:

- Compared to other LGAs within NSW, Shellharbour LGA exhibits average levels of socio-economic disadvantage, falling within the third quintile; and
- The study areas exhibit marked difference, with Albion Park Rail falling within the first quintile and Shellharbour – Flinders the fourth.

Table 5-10 The Index of Relative Socioeconomic Disadvantage (IRSD)

| IRSD | Albion Park Rail SA2 | Shellharbour Flinders SA2 | Shellharbour LGA |
|------------|----------------------|---------------------------|------------------|
| Score | 940 | 1046 | 976 |
| Quintile | 1 | 4 | 3 |
| Percentile | 20 | 70 | 50 |

5.3 EXISTING SOCIAL INFRASTRUCTURE

The analysis conducted for this study identified a range of essential social infrastructure which underpin the social wellbeing of the population. This infrastructure in the Shellharbour LGA is identified in **Table 5-11** and illustrated in **Figure 5.3**.

Near the Project Area, there are several major regional facilities in Wollongong which service the community. Wollongong particularly has a range of higher order health and education facilities. These include the Wollongong Hospital, the University of Wollongong and Wollongong TAFE campus, the largest in the Illawarra region. Wollongong also has an additional public hospital which provides rehabilitation, aged care and palliative care services, and the large Figtree Private Hospital.

The highest order community facilities in Shellharbour LGA are located in Shellharbour City Centre/Shellharbour Village. These include the Shellharbour Hospital and Private Hospital, and the Shellharbour TAFE campus as well as the Blackbutt Youth Centre. However, currently there is no city library and LGA or district level community centre. Planning is currently underway for a major redevelopment of the Shellharbour Hospital.

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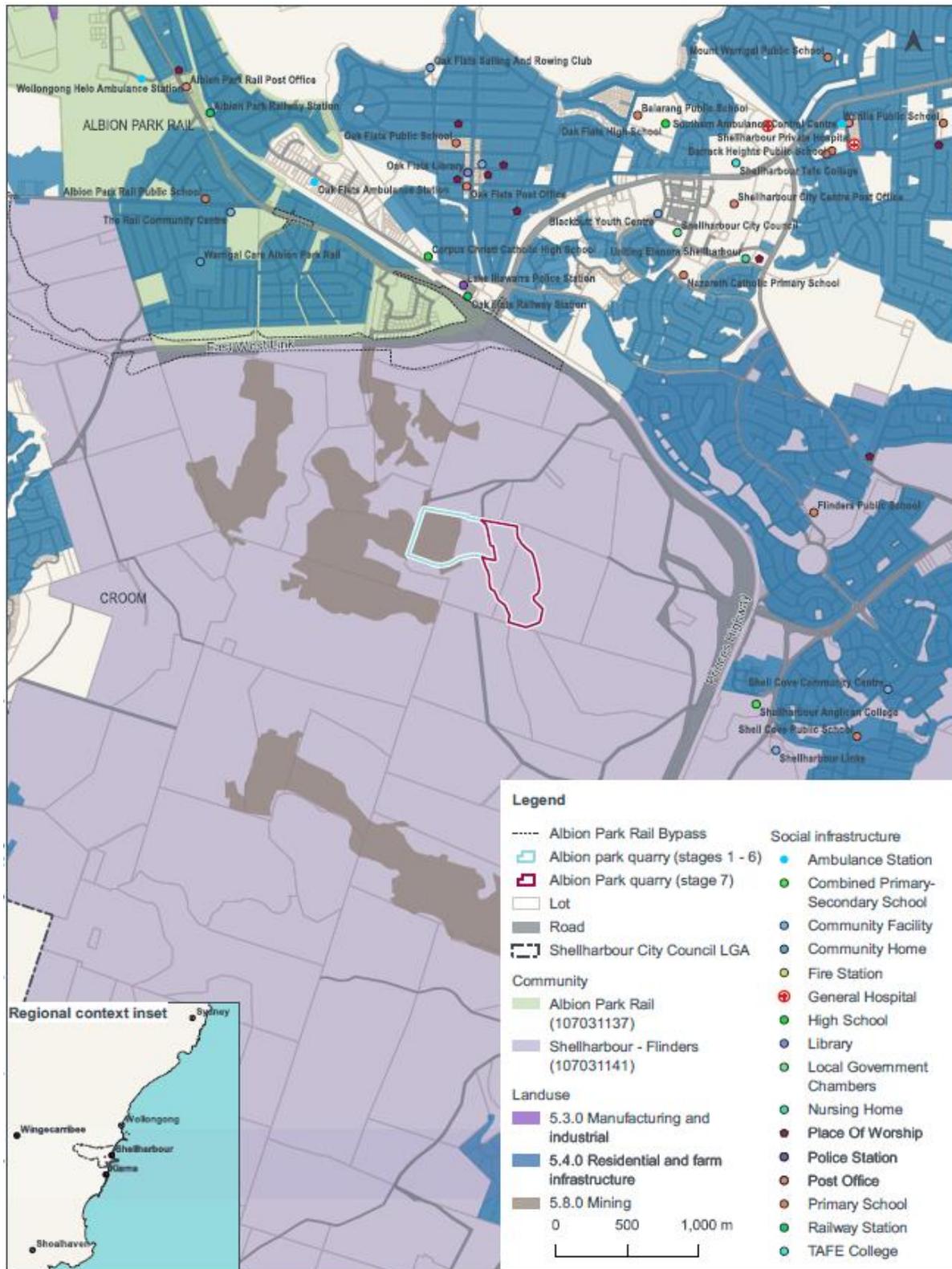


Figure 5.3 Surrounding land use and social infrastructure

Source: Element Environment

Community facilities around the Project Area focus on local level facilities. Important clusters of community facilities were found to exist in Ash Street, Albion Park; Albion Park (particularly in Tongarra Road and Russell Street); and in Oak Flats (particularly Central Road). There is also a specialised cluster of aeronautical/emergency services located along Airport Road, Albion Park Rail.

Cultural facilities are largely located in regional cities and major regional centres. In the case of the Shellharbour area, Wollongong City is the location of major regional level cultural facilities. Shellharbour City Centre, as the seat of local government, at the present time contains relatively few major cultural facilities.

Table 5-11 Existing social infrastructure

| Facility Type | Facility/Service/Club |
|--|---|
| Health | Shellharbour Hospital (Madigan Boulevard, Shellharbour City Centre) Shellharbour Private Hospital (27 Captain Cook Drive, Barrack Heights) |
| Education and child care facilities | Illawarra TAFE Shellharbour Campus, Albion Park Rail Public School, Illawarra Christian School, Albion Park Public School, Albion Park High School, St Joseph's Catholic High School, St Pauls Catholic Primary School, Mount Terry Public School, Uniting Church Playgroup, Terry Street Kids, Albion Park World of Learning Bright beginnings Childcare and Early Learning Centre, Alunga Children's Centre, Greenmeadows Preschool, Coinda Family Mornings Aboriginal Playgroup, Aspect Kids Playgroup, Koninderie Community Based Preschool, Oak Flats Primary School |
| Community Centres and town halls | Albion Park Rail Neighbourhood centre, Koori Men's Group Cottage / Illawarra Koori Men's Support Group, Albion Park Men's Shed, Albion Park Youth and Community Centre, Oak Flats Neighbourhood Centre |
| Art and cultural facilities | Centenary Hall, Tongarra Museum, Illawarra Light Rail Museum, Historical Aircraft Restoration Society, Ravensthorpe, Shellharbour Village Library, Albion Park Library, Cleary Bros Heritage Museum |
| Emergency and justice facilities | Albion Park Police station, State Emergency Services, Ambulance NSW, NSW Rural Fire Services, NSW Fire and Rescue Brigade, Albion Park Court House, Australia Aerial Patrol, Illawarra Fire Control Centre |
| Aged Care facilities | Warrigal Care Albion Park Rail, Ridgeview Aged Care, Albion Park Home and Community Care (HACC) Centre (Albion Park Showground, Tongarra Road), Community Transport, Warrigal Care Albion Park, Oak Flats Senior Citizens Centre |
| Open space | LR Modd Park, Hegarty Park, McDonald Park, Blackbutt nature Reserve, Deakin Reserve, Nob Hill Park, Croom Reserve |

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| Facility Type | Facility/Service/Club |
|--|---|
| Sport and recreation facilities | Croom Regional Sporting Complex, Croom Reserve, Terry Reserve, Shellharbour City Stadium, AMF Bowling Illawarra – Ten Pin Bowl, Tiger Putt Putt and Little Tiges Play Centre, Skate park, Albion Park Swimming Pool |
| Places of worship | Albion Park Presbyterian Church, Southern Illawarra Church of Christ, Presbyterian Reformed Church, Albion Park Baptist Church, Grace Church, All Saints Catholic Church, Shellharbour City Anglican Church, Shellharbour Community Church, Kingdom Hall of Jehovah's Witnesses |

5.4 OPERATIONAL CONTEXT

5.4.1 Employees, suppliers and demand

In establishing the existing baseline, it is important to consider the socio-economic linkages between the existing Quarry operations and the communities and regions in which they are located, and to estimate the direct and indirect contribution of the operations to local communities and the broader region.

To inform this analysis, secondary data relating to employee residential location was assessed where available and supplier data sourced that focuses on customers (i.e. who is demanding the product) and customer location (i.e. where the supply is delivered to).

Data provided by Cleary Bros shows that:

- 97% of Quarry employees reside in the LGAs of Wollongong, Shellharbour, Kiama, Shoalhaven and Wingecarribee;
- 74% of suppliers are based in the LGAs of Wollongong, Shellharbour, Kiama, Shoalhaven and Wingecarribee, 18% based in Sydney and 8% elsewhere;
- 78% of Quarry sales have been to either local companies or local project sites in the Wollongong, Shellharbour, Kiama, Shoalhaven and Wingecarribee LGAs; and
- Remaining sales values relate to Greater Sydney based companies or delivery locations in the Greater Sydney area.

5.4.2 Complaints analysis

Cleary Bros maintain an ongoing complaints register to record all community complaints, investigations and outcomes. A review of the complaints register from July 2017 to 31 December 2020 has been undertaken to provide some operational context to issues identified by landholders during the SIA consultation.

It is important to note that Cleary Bros records all relevant contact with the community even if an investigation concludes that the Quarry activities remain in compliance with project approval conditions (and other regulatory) limits; or the reported instance is not able to be attributed to the Quarry (e.g. a contact regarding a blast is recorded as a complaint even if the investigations finds that no blast from the Quarry occurred at the time reported).

Cleary Bros received, investigated and recorded a total of 24 complaints within the three-year period between July 2017 and August 2020, with the highest number of complaints in 2019/2020, when 13 were received.

The most common issue for complaint was blasting, accounting for 54% (n=13) of all complaints received during this period. Blast complaints mainly focused on noise, vibrations and fume, with a further 33% (n=8) of complaints relating to the dust reportedly created from other Quarry activities. Only 13% (n=3) related to noise from quarrying activities.

All complaints were investigated by the relevant Cleary Bros personnel. Management measures typically involved contacting the complainant to discuss details of operations conducted during the complaint period and investigating. Where required, additional management measures were put in place, such as reassigning location of water cart to address dust concerns. **Figure 5.4** presents the complaints data.

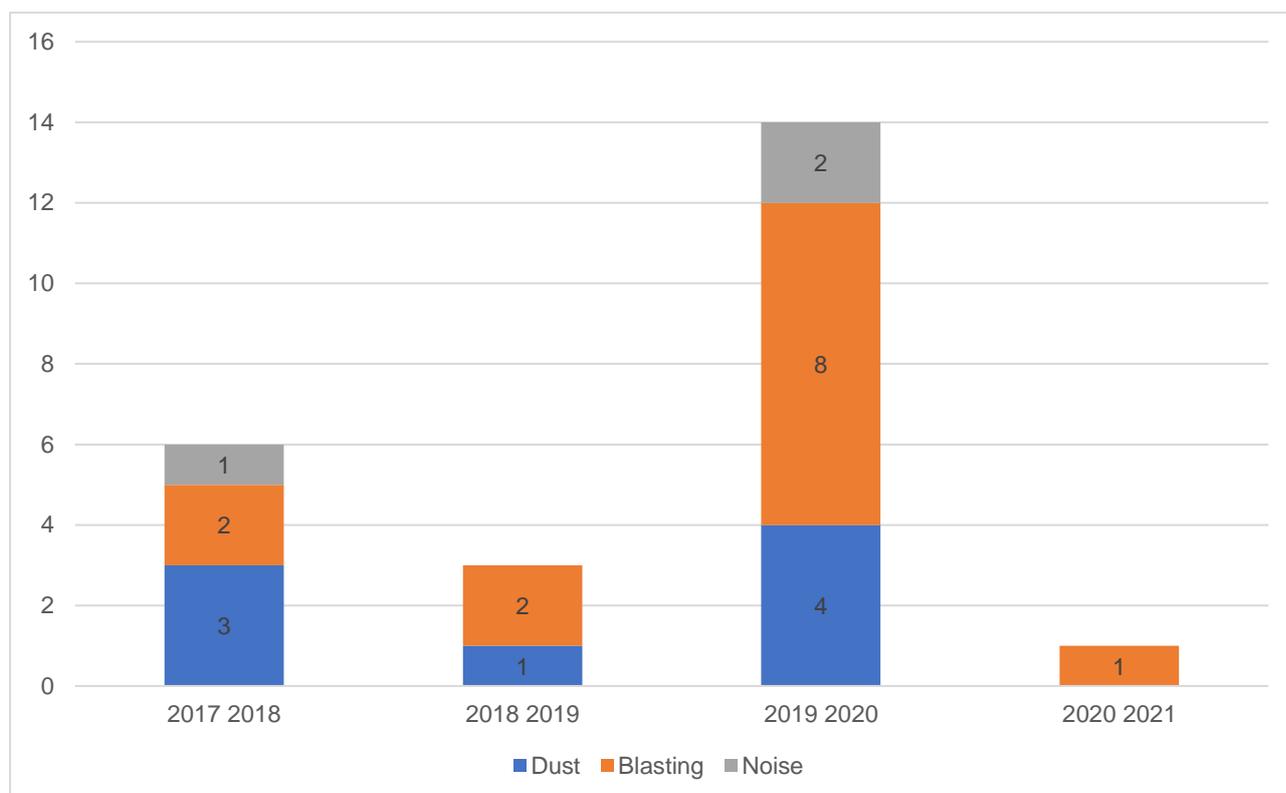


Figure 5.4 Complaints received by Cleary Bros 2017 to December 2020 (n = 24)

Source: Cleary Bros Complaints database (2017, 2018, 2019, 2020)

5.4.3 Community Investment

Cleary Bros is a locally family-owned business that has been a member of the Illawarra and Shoalhaven community for over 100 years. Their social investments target various local community groups, events and services across the region which over the past five years have included:

5.4.3.1 Medium to large sponsorship

- Illawarra Convoy;
- Kiama 7's tournament;
- Kiama Show;

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- South Coast Blaze netball sponsorship;
- Sponsorship of the Group 7 referees (South Coast / Illawarra NSW rugby league competition); and
- HARS Aviation Museum.

Small sponsorship:

- MS Gong Ride;
- Kids Express; and
- Movember.

In addition, Cleary Bros owns and maintains a Heritage Museum that is open to the public by prior appointment as well as opening the Museum to the public at annual Community Open Days. Cleary Bros accepts a gold coin donation from the public and all proceeds are donated to a local charity.

5.5 SOCIAL BASELINE SUMMARY

This baseline presents some of the issues of concern and challenges facing communities in the locality and it has been used as a basis, where possible, to assess the social impacts of the Project.

From a review of the baseline, it is possible to identify a number of key issues and opportunities for the Shellharbour area, as listed below:

- Infrastructure, housing and service provision and improved planning for a growing region (e.g. roads/transport; housing accessibility, affordability and mix; health services);
- Developing more and diverse employment, education and training services/opportunities for local people;
- Development of diverse housing options;
- Protecting key community values including local communities; rural lifestyle; social/community and recreation facilities and events; traditional community and family values;
- Job growth and economic diversification (including creative economy, small business, tourism, agriculture, retail, health services, etc.);
- Access to education and community service provision;
- Access to quality health services; and
- Conservation of heritage and environment.

Inherent within the SIA process is the need to identify and empower vulnerable groups. “Although vulnerability is context- dependent and can include a very wide range of groups, typically the concept includes: Indigenous peoples, ethnic minorities, migrants, disabled people, the homeless, the poor, those struggling with substance abuse, and isolated elderly people” (Vanclay, 2015).

From the social profile analysis undertaken for the Project, it is possible to assess key areas of community resilience and risk in the Shellharbour LGA. The key findings are summarised in **Table 5-12**.

Table 5-12 Social baseline summary

| Strengths | Vulnerabilities | Potential implications for vulnerable groups |
|---|---|---|
| Significant population growth (Shellharbour LGA) | Below average rates of completion of year 12 with high numbers only completing year 10. The strength of labour-based industries in the area such as steel and manufacturing and to a degree, coal mining is perhaps one explanation for this pattern. These industries would typically require a workforce with practical skills obtained through trade certificates and apprenticeships, rather than through university programs | Those with low education qualifications have reduced resilience to changes in employment due to unforeseen circumstances. |
| Labour-based industries in the area such as steel and manufacturing and to a degree, coal mining | Less industry diversity due to dominance of labour-based industries employment and associated occupations | Decreased resilience of the local economy to react to changes in labour-based industries. Change in population as a result of job losses. |
| Above average score on SEIFA indexes for Shellharbour-Flinders SA2 indicating a relative lack of disadvantage in general | Albion Park Rail SA2 has a low SEIFA score indicating relatively greater disadvantage in general | Potential to exacerbate existing social issues of unemployment, and reduced resilience to change. Decrease community cohesion. |
| Abundant and diverse natural capital, including diversity of natural resources, heritage items, agricultural lands, and national parks and reserves | Competing land uses in the region and managing community perceptions | Ongoing potential for conflict between different industries utilising the natural capital of the area. |
| Social assistance services such as aged care facilities and the Shellharbour Hospital feature predominately in the area for industry of employment | Lower rates of volunteering when compared to NSW | Reduced community cohesion and lack of support networks. |
| Improving services and transport options in area including a new \$700M Shellharbour Hospital redevelopment and bypass of Albion Park Rail | Temporary reduction in social amenity during construction | Potential further restrictions to access to services for vulnerable groups due to influx of workers from major works. |

6 EXPECTED AND PERCEIVED IMPACTS

6.1 OVERVIEW

State significant projects can impact people in many ways, both positive and negative. The SIA process assesses a project from the perspective of people – meaning a development is more likely to be socially sustainable if the expected and perceived impacts on people are understood, managed and/or mitigated. The SIA identifies, predicts, evaluates and develops responses to social impacts as part of an integrated assessment that also considers environmental, economic, social and cultural impacts.

The aim of this section is to provide an overview of the expected and perceived social issues that require additional assessment, including the consideration of the likely duration, extent, sensitivity and severity of potential social impacts. In the context of this assessment, the word perceived has been interpreted as “noticing or becoming aware of something” or “to understand or think of somebody/something in a particular way” (Oxford English Dictionary, access online 2021).

Therefore, this section discusses how the community understands and interprets the social impacts (potential effects or influences of the Project) and their associated risk (exposure to danger, harm or loss).

These impacts are then further assessed to predict the social impacts in relation to the Project that may require mitigation or enhancement (refer to Section 7).

For the purpose of this assessment, the social impact categories outlined in the 2021 Guideline have been adopted to help identify the potential social impacts. These categories are outlined in **Table 6-1**.

Table 6-1 Social impact categories

| Categories | Definition |
|-----------------------------|--|
| Way of life | How people live, how they get around, how they work, how they play, and how they interact each day |
| Community | Community composition, cohesion, character, how the community functions, and people’s sense of place |
| Accessibility | How people access and use infrastructure, services and facilities, whether provided by a public, private or not-for-profit organisation |
| Culture | Aboriginal and non-Aboriginal, including shared beliefs, customs, values and stories, and connections to Country, land, waterways, places and buildings |
| Health and wellbeing | Physical and mental health especially for people vulnerable to social exclusion or substantial change, psychological stress resulting from financial or other pressures, access to open space and effects on public health |

| Categories | Definition |
|--------------------------------|---|
| Surroundings | Ecosystem services such as shade, pollution control, and erosion control, public safety and security, access to and use of the natural and built environment, and aesthetic value and amenity |
| Livelihoods | People’s capacity to sustain themselves through employment or business |
| Decision-making systems | Including the extent to which people can have a say in decisions that affect their lives, and have access to complaint, remedy and grievance mechanisms. |

Expected and perceived positive and negative social impacts to people

As part of determining the social impacts that need to be considered for the SIA, the DPIE scoping tool was populated to inform the SIA methodology. During the assessment phase, further consultation and social research methodologies were used to ascertain the expected and perceived impacts for the Project. As such, this section has been informed by:

- Interviews conducted with the local community and stakeholders as part of the EIS scoping phase and interviews and surveys conducted during the EIS assessment phase;
- An analysis of recent complaints to understand the existing operating environment;
- Outcomes of the various Quarry CCC meetings and issues of importance to the community;
- Consultation with specialists undertaking various assessments; and
- Research and analysis of the area surrounding the Project.

Table 6-2 summarises the impacts considered applicable to the Project and the assessment methodology that was informed by the process outlined above. A more comprehensive overview of each of the identified impacts follows the table.

Considering the nature of the Project, it is not considered necessary to undertake a comprehensive detailed assessment of current community services/facilities, health, housing availability, safety, or social cohesion.

In addition, there are no changes proposed to product transportation from the Quarry, nor are there any changes to the existing operating hours. As such, no new traffic-related impacts associated with Project require assessment.

Of final note, the Project does not include any construction works. All works are considered to be operational Quarry works. As such, no assessment of construction impacts is required.

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Table 6-2 Expected and perceived impact to people

| Impact to people | Social impact category | Level of assessment for SIA based on SIA scoping tool | Method |
|---|---|---|--|
| Increase in operational dust, noise and vibration causing a decline in social amenity, health or way of life for nearby neighbours and personnel | Way of life, Surroundings, Health and Wellbeing | Standard | Exploratory Research Desktop Analysis based on specialist studies Media analysis Semi-structured Interviews and surveys |
| Expansion of existing land use and cumulative impacts of blasting resulting in a disadvantage to personal property (negative) for nearby neighbours | Livelihoods Health and wellbeing | Standard | Semi-structured interviews / surveys Exploratory research |
| Changes to the aesthetic value and amenity affecting surroundings and way of life | Surroundings Way of life | Standard | Semi-structured interviews / surveys Desktop analysis based on specialist studies |
| Enhanced community wellbeing from continuation of job opportunities and community investment | Way of life Community | Desktop integration | Desktop analysis based on specialist studies / research |
| Distributive equity of economic benefits, between the region and nearby neighbours | Way of life Community | Desktop integration | Desktop analysis based on specialist studies / research |
| Cumulative Impacts from surrounding quarries resulting in reduced social amenity, wellbeing and impact on surroundings for nearby neighbours | Health and wellbeing Way of life | Standard | Exploratory research Desktop analysis based on specialist studies |
| Lack of trust in systems used to influence operational management systems and project design | Decision making systems | Standard | Exploratory research Desktop analysis based on specialist studies |
| Further changes to land use affecting community character inducing a sense of loss of European heritage | Culture | Desktop integration | Desktop Analysis based on specialist studies |
| Further changes to land use affecting community character inducing a sense of loss of Aboriginal Heritage | Culture | Desktop integration | Desktop Analysis based on specialist studies |
| Further changes to land use affecting the availability of naturally occurring groundwater used for livestock, impacting livelihoods | Livelihoods | Desktop integration | Desktop Analysis based on specialist studies |

6.1.1 Increase in operational dust, noise and vibration causing a decline in social amenity, health or way of life for nearby neighbours and personnel

The proposed Stage 7 extension area would result in extraction activities moving closer to some rural residences east and north of the Quarry. The existing air quality in the vicinity of the Quarry is assessed as 'good' and the most recent Annual Review for the Quarry, prepared for the period 1 July 2019 to 30 June 2020, records that compliance with all applicable noise and vibration criteria was achieved during the reporting period (Cleary Bros, 2020).

Notwithstanding the above, consultation with the adjoining property owners and analysis of the complaints over the past three years, show the impacts on social amenity relating to noise, dust and vibration were the primary areas of concerns. For the purpose of the assessment, this section has been broken down further into the sub-categories of noise, dust, vibration and health and wellbeing.

6.1.1.1 Noise

Operational noise was primarily identified by nearby neighbours to the north as a perceived impact of the Project. Concerns related to the increased noise that the Project would create as it becomes closer to the properties to the north and the ongoing changes to what used to be a peaceful rural environment. There were also concerns that there would be an increased impact on way of life, particularly during the week with one neighbour noting that currently the operational noise can be disruptive to the point of having to wear noise cancelling headphones or play background music to tune it out.

"Noise transmission will increase significantly above the current Stage 1-6 operation, which will significantly affect my quality of life during the operating hours"

"As it gets closer it becomes more intrusive to our daily lives"

A review of existing complaints for the Albion Park Quarry for the period July 2017 and December 2020 (n=24) indicates that a third of the of the complaints received related to noise from either blasting activities (n=5) or other operational noises such as machinery (n=3).

There was some feedback that neighbours were thankful that no changes to hours of operations were proposed, which meant there would still be some respite from noise during the night from this particular quarry.

"Thankfully this Quarry doesn't operate 24 hours a day"

Unmitigated and without careful consideration of design, this impact is considered to be high for the adjoining property immediately to the north ("Figtree Hill") (it is likely with a moderate magnitude), and medium for the remaining nearby neighbours to the east and west – it is possible with a moderate magnitude.

The unmitigated impact is considered to be low for the Shellharbour LGA with the impacts associated with this category expected to be direct and localised.

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6.1.1.2 Dust

Dust and its impact on health, surroundings and wellbeing have been raised in relation to the Project by a small number (3) of nearby neighbours. A review of existing Quarry complaints for the period July 2017 and December 2020 (n=24) indicates that approximately 33% of the complaints received relate to dust (n=8). Concerns primarily related to the current management of dust and the fear that as they get closer, they will have increased impacts, particularly in terms of health impacts, dust deposition settling on roofs and washing into rainwater tanks, and the general annoyance on way of life that dust brings. Concerns for personnel and employees were also noted.

“We do not know what effect dust deposition settling on roofs then washing into rainwater tanks and wells used for human consumption is having on us”

There was also the concern raised around water resources to manage the dust, and the availability of water.

“The dust - where are they going to get the water sources to manage it?”

Unmitigated, this impact is considered to be medium for “Figtree Hill” and also for the nearby neighbours to the east– it is possible with a moderate magnitude. The unmitigated impact is considered to be low for the Shellharbour LGA with the impacts associated with this category expected to be direct and localised.

6.1.1.3 Vibration

During consultation, nearby neighbours raised concerns around vibration caused from blasting primarily in regard to the potential structural impacts, particularly that the cumulative impacts of blasting over time are potentially leading to deterioration of property. This concern around personal property impacts is further explored in Section 6.1.2.

In regard to amenity, the concern around feeling the vibration, and shaking of windows in the property were raised, but these amenity impacts were noted less when compared to the property impacts.

“Feel like sometime the house is shaking”

Unmitigated this impact is considered to be medium for “Figtree Hill” – it is possible with a moderate magnitude and low for the remaining nearby neighbours to the east– it is possible with a minimal magnitude. The unmitigated impact is considered to be low for the Shellharbour LGA with the impacts associated with this category, as above, expected to be direct and localised.

6.1.1.4 Health and wellbeing – amenity

During engagement, physical and mental wellbeing concerns were also raised by adjoining neighbours with mental health concerns centred on the frustrations and stresses caused by living with cumulative quarrying impacts, the associated decline in rural and social amenity and the devaluation of properties.

“This will have a huge impact and will cause increased ongoing stress and anxiety in our daily lives”

In terms of physical health, that was a concern raised around not knowing what effect dust deposition settling on roofs and washing into rainwater tanks and wells used for human consumption could potentially have on the adjoining properties. Specifically, for mental health, increasing levels of stress and anxiety were being experienced and associated with the continual encroachment of quarrying projects on personal properties. These impacts are relevant to the way of life and health and wellbeing social impact categories.

Unmitigated, the impact of decline in air quality on physical health is considered to be medium for "Figtree Hill" and also for the nearby neighbours to the east– it is possible with a minor magnitude. The unmitigated impact is considered to be low for the Shellharbour LGA with the impacts associated with this category expected to be direct and localised.

In terms of mental health, it is likely that the discussion around the Project is contributing to mental health issues for some residents and landholders in the locality, with a minor magnitude level, resulting in a 'moderate' social impact (unmitigated) for adjoining landowners and low for the Shellharbour LGA.

6.1.2 Expansion of existing land use resulting in a disadvantage to personal property (negative) for nearby neighbours

In a SIA, livelihood refers to people's capacity to sustain themselves through employment or business, whether they experience personal breach or disadvantage, and the distributive equity of impacts and benefits. In the context of the Project, there was a fear expressed by adjoining property owners that the Project would impact on the value of their property or would cause damage to property. In the case of those who may wish to relocate or move out of the area in the future, a fear was related to their ability to sell their properties.

"It (the Quarry) leads to the devaluation and sterilisation of properties"

In addition, there were also concerns that the Project could have a negative impact on potential income streams from dwellings (existing and future), from properties being leased for example.

"The Quarry causes a decline property value, and inhibits the ability to do anything further"

"Our property is being continually devalued and the ability to generate any further income from other activities greatly reduced".

In terms of structural damage, nearby neighbours raised concerns around blasting and potential structural impacts, particularly that the cumulative impacts of blasting over time are potentially leading to deterioration of property. This concern was further exacerbated by the proposal to move Quarry operations closer to nearby dwellings.

"Cumulative effects are adding to the deterioration of our buildings, infrastructure and home contents - we have much in the way of very old and precious to us"

"Our houses shake/vibrate to varying degrees with every blast".

Notwithstanding the above, given the change to the extraction area and the known history of quarrying in the area, it is considered possible to occur with a minor magnitude and categorised as a medium social impact for the adjoining properties. From a wider Shellharbour LGA perspective, this impact is considered medium (positive) when considering that the Project will likely keep the continued employment and increase people's ability to sustain themselves through continued employment and associated indirect contributions to the wider community.

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6.1.3 Changes to the aesthetic value and amenity affecting surroundings and way of life

Stage 7 occupies a north-south trending ridge within the Wentworth Hills that will have a notable visual impact on the surrounding area. During consultation with the nearby neighbours concerns were raised about the visual impacts that the Project would have on them from an amenity and way of life perspective.

“Our farm will be looking into the Quarry pit with no ability to screen due to the fact we are situated on the upper ridge – we have direct line of sight to the proposed Quarry site”

“The outlook from the inside the cottage and surrounding outdoor living spaces towards the south will change from rolling hills to industrial extraction”.

The nearby neighbours raised concerns about changes to the way they used their property in terms of the visual amenity and the vistas that they currently experience on a daily basis. The Project would impact on the way they currently enjoy their property – their way of life. They also raised concerns over how the visual impacts could potentially be mitigated and if screening would even be successful in preventing the visual amenity impacts likely to occur as a result of the Project.

“Due to the topography it is extremely difficult to mitigate the increased visual and noise impacts”.

Unmitigated and without careful consideration of design, this impact is considered to be high for “Figtree Hill” – it is likely to occur at a major magnitude. The unmitigated impact is considered to be medium for the local community to the east and southeast, mainly beyond the Princes Highway as the extraction face will only be more visible from a substantial distance where the visual landscape will have a noticeable deterioration over time. The impact is also considered medium for Princes Highway motorists who may possibly experience the impact at a minor magnitude, albeit for very short periods.

6.1.4 Enhanced community wellbeing from continuation of job opportunities and community investment

Cleary Bros prides itself of being a family values-based culture and as having a strong commitment to giving back to their local community. In terms of employment, there are approximately 30 employees and contractors directly involved in extraction and processing operations at the Quarry and a further 50 employees and contractors employed outside of the Quarry as a direct result of quarrying operations. As outlined in the social baseline, the majority of employees reside in the LGAs of Wollongong, Shellharbour, Kiama, Shoalhaven and Wingecarribee and approximately three quarters of all suppliers and sales are based in the LGAs of Wollongong, Shellharbour, Kiama, Shoalhaven and Wingecarribee.

In terms of community investment, Cleary Bros is committed to supporting several community initiatives in the Project locality. Engagement with the wider community confirmed the positive community contributions of Cleary Bros:

“A great family-run company which supports many local sporting and community groups”

“Cleary Bros has been a good community member for a long time now and there continued support is appreciated”.

A review of media publications also show that Cleary Bros continue to support the community across a range of areas including sport, community services and culture. For example, a media search has shown most recently, they became the franchise partners for the new South Coast franchise in the Netball NSW Premier League, the pinnacle netball competition in the State along with supporting a number of other local sporting teams.

The unmitigated preliminary impact of the Project on the local economy of Shellharbour and NSW more broadly (during the continued operation) is considered to result in a high positive social impact (likely to occur, with a moderate magnitude).

6.1.5 Distributive equity of economic benefits, between the region and nearby neighbours

Closely linked to the above, during consultation with the nearby neighbours, it was noted that while Cleary Bros is proactive in supporting local community causes and is an important source of employment for the area, the general consensus was that close neighbours who bear the cost of the negative externalities of the Quarry are not fairly compensated:

“Private adjoining landowners (since 1865) have born and bear the negative externalities of the past, current and future operations (without recompense). We bear that cost, which is the negative impacts on our property, homes and wellbeing”.

While, as residents of the wider Shellharbour LGA, these nearby neighbours will benefit from the positive impacts on the economy more broadly, it is still possible that there could be a perceived medium unmitigated social impact (possible and minor).

6.1.6 Cumulative Impacts from surrounding quarries resulting in reduced social amenity and wellbeing for nearby neighbours

The cumulative impacts from surrounding quarries were raised by one property owner during consultation however cumulative impacts are considered more broadly in the EIS process.

“Obviously, the cumulative impacts increase as each quarry company continues to expand i.e., noise, dust, blasting, traffic, impact on groundwater, native flora and fauna and these all need to be continually monitored and addressed”.

The Illawarra Shoalhaven itself has a strong history of mining and extractive activities, dating back 200 years to when coal deposits were first discovered around Coalcliff. As previously mentioned, the Quarry is one of several operating quarries in the Shellharbour area and there are also additional major projects present in various stages of development, including the Albion Park Rail Bypass (under construction) and the Shellharbour Hospital redevelopment (assessment phase).

Table 6-3 provides an overview of nearby projects and their approximate distance from the Project Area. As part of its current operations, the Quarry is meeting its environmental obligation to minimise cumulative impacts on the area.

Given the existing community baseline and operational impacts, the cumulative impacts of the Quarry on social amenity have been assessed as a ‘low’ unmitigated social impact for both adjoining property owners and the wider community.

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Table 6-3 Surrounding projects and developments

| Project | Stage | Approx. Distance from Project |
|---|----------------------------------|-------------------------------|
| Shellharbour Hospital Redevelopment | Prepare EIS | 3.4 km |
| Albion Park Rail Bypass | Construction, nearing completion | adjacent |
| Bass Point Quarry - Mod 2 | Approved (2019) | 5 km |
| Sydney Trains' Dunmore Hard Rock Quarry | Prepare EIS | 2.8 km |
| Dunmore Lakes Quarry Mod | Approved (Nov 2020) | 2.8 km |
| Calderwood Urban Development Project | Concept Approved 2010 | 4.5 km |

6.1.7 Lack of trust in systems used to influence operational management systems and project design

Lack of trust in decision-making systems is defined in the 2021 Guideline as people not experiencing procedural fairness, making informed decisions or meaningfully influencing and having less means to access complaint, remedy and grievance mechanisms.

During consultation with nearby neighbours', concerns were raised regarding the location of both noise and dust monitors used and the accuracy of the data which is used for reporting.

"We have had a consistent issue over a long period of time with dust monitors on our property not facing in the correct direction"

"The methodology used by Cleary Bros consultants to measure the noise impact... (as mandated in the conditions of consent for the Quarry) is inadequate".

The difficulties in commissioning real-time dust monitors for the Quarry was also raised as a concern in relation to the accuracy of measuring the concentration of fine dust particles in the area and replacing old existing monitors.

Unmitigated, this impact is considered to be medium for "Figtree Hill" – it is possible to occur with a minor magnitude. This concern was not raised by the wider community.

6.1.8 Further changes to land use affecting community character, inducing a sense of loss of European heritage

The Project lies within the Wentworth Hills cultural landscape, comprising three farms, namely, "Belmont", "The Hill" and "Kyawana". The "Belmont" farm is listed as being of local significance under Schedule 5 of the Shellharbour Local Environmental Plan (LEP) 2013. Three other items within the Stage 7 extension area (i.e. the former bails and dairy as well as an extant dry-stone wall) are considered to have moderate historic archaeological potential.

The Project proposes to remove the "Belmont" residence and a number of related structures as part of development application for the Stage 7 extension area.

During the consultation with the nearby neighbours, one owner expressed concerns relating to the impact on heritage. Specifically:

“The removal of the heritage item listed on the local LEP, being Belmont Homestead and Dairy”

and

“Deterioration and destruction of heritage items/landscape, including the Wentworth Hills”

Unmitigated, this impact is considered to be high for “Figtree Hill” – it is likely to occur with a moderate magnitude. The unmitigated impact is also considered to be high for the local community as there is medium probability (likely) that an item listed as being of local significance will be permanently removed (moderate).

6.1.9 Further changes to land use affecting community character inducing a sense of loss of Aboriginal Heritage

The Illawarra region is the traditional land of the Wodi Wodi, a group of people who spoke a variant of the Dharawal language (Wesson 2009). Tindale (1974) found that the Wodi Wodi occupied an area which extended from Stanwell Park in the north, to the northern bank of the Shoalhaven River in the south, and west as far as Picton, Moss Vale and Marulan.

During the assessment phase, consultation with Aboriginal stakeholders was carried out as part of the Aboriginal Cultural Heritage Assessment (technical outcomes are further explored in Section 7). The potential impact on Aboriginal heritage was not raised by nearby neighbours or the wider community.

Given the Project Area has been subject to disturbances and historically used for crops and grazing, it is unlikely to have subsurface archaeological potential, however it is possible that connection to culture will be impacted. The unmitigated impact is considered to have a low impact for Aboriginal people and connection to culture (possible to occur with minimal magnitude).

6.1.10 Further changes to land use affecting the availability of naturally occurring groundwater used for livestock, impacting livelihoods

During consultation, one nearby neighbour discussed the potential impact of both existing operations and the Project on natural springs within the area – noting that there had been a number of changes to the supply over the years. The springs feed the dams and the water is primarily used for watering stock and keep paddocks hydrated. It was also noted that the locality, along with the majority of NSW was in the grip of a significant drought up until mid-2020.

“We have experienced natural springs on our property drying up during dry spells, which historically is very unusual and of great concern to us”.

Unmitigated, this impact is considered to be medium for “Figtree Hill” – it is possible with a moderate magnitude. The unmitigated impact is considered to be low for the local community (unlikely and minor).

7 SOCIAL IMPACT

7.1 OVERVIEW

This section further assesses the social impacts associated with the Project as outlined in Section 6 by providing a mitigated impact significance ranking according to a number of key characteristics, as defined in the 2021 Guideline (DPIE, 2021).

Specifically, this section:

- Considers project refinements to either avoid or minimise impacts;
- Considers technical assessment outcomes, social research and measures to mitigate impacts; and
- Re-evaluates and describes the expected residual impact after the social impact mitigation.

7.2 PROJECT REFINEMENTS

In the early phases of project planning, a number of project refinements were undertaken in response to likely, perceived or anticipated social impacts. These refinements are reflected in **Table 7-1**. A more comprehensive list of project refinements is provided in the EIS.

Table 7-1 Project refinement

| Social Impact Category | Refinement |
|---|--|
| Surroundings Way of life | Inclusion of amenity barriers and tree screening to minimise visual impacts |
| Surroundings Way of life | Sequencing of extraction. The proposed staging in the EIS is not the most efficient way of extraction, however, has been proposed to minimise visual impacts to the communities to the east, and particularly noise and visual impacts experienced at the residences on "Figtree Hill" throughout the majority of the Project life |
| Surroundings Way of life | Profile of final western highwall has been redesigned to increase benching, which while resulting in some loss of resource, will reduce visual impacts for the occupants of the residences on "Figtree Hill" and residential communities to the east |
| Surroundings Way of life | Set back of Project Area from southern property boundary to minimise visual and other perceived impacts to the southern neighbours |
| Surrounding Way of life | Noise suppression kits to be fitted to dozer and drill rig operating on or near the surface to minimise noise impacts for the occupants of the residences on "Figtree Hill" throughout the Project life |
| Culture | Reconstruction of dry-stone walls proposed to re-create these heritage items |
| Way of life Surroundings Health and wellbeing | Alignment of main internal haul road along northern and eastern limits of the Project Area to minimise noise and dust impacts, predominantly for the occupants of the residences on "Figtree Hill" |
| Surroundings | Project Area has been reduced in three areas to minimise impacts to better condition vegetation communities and endangered species |

7.3 MITIGATED SOCIAL IMPACT ASSESSMENT

This section assesses the mitigated social impact on those perceived and unmitigated impacts outlined in Section 6. At the conclusion of this Section, **Table 7-2** summarises the predicted mitigated social impacts in relation to the Project. It considers enhancement, mitigation and residual impacts.

7.3.1 Increase in operational dust, noise and vibration causing a decline in social amenity, health or way of life for nearby neighbours and personnel

7.3.1.1 Noise

In order to minimise impacts to social amenity as a result of noise, a number of Project design features have also been considered to reduce noise impacts over the life of the Project. These include:

- Realignment of the main internal haul road along the northern and eastern limits of the Project Area to minimise predicted noise and dust impacts, predominantly for the occupants of the residences on “Figtree Hill”; and
- The proposed staging in the EIS has been designed to minimise noise impacts to the occupants of the residences on “Figtree Hill” throughout the majority of the Project life.

Cleary Bros also have a number of existing management and mitigation strategies that are documented in the approved management plans and these will continue to be implemented in accordance with the development consent for Quarry operations. Further details of these strategies are also discussed within the EIS.

Open and transparent discussions of social amenity impacts including noise, dust and vibration are also encouraged at the biannual CCC meetings. Cleary Bros has also maintained open dialogue with the owners of “Figtree Hill” in recent years regarding its operations.

A detailed Noise and Blasting Impact Assessment (NBIA) was carried out by SLR (2022) to determine the potential for operational noise impacts as a result of the Project including during:

- Typical extraction and processing operations;
- Amenity barriers works;
- Vegetation mulching;
- Soil and overburden stripping;
- Drilling near surface.

The NBIA considers the different stages included in the sequencing of extraction, referred to in the EIS as Stage 7a, 7b, 7c and 7d. The assessment found:

- Predicted noise levels during typical extraction and processing operations would be compliant with the Project Noise Trigger Levels (PNTLs) at all receivers during all stages; and
- Predicted noise levels during worst-case operations at the surface during the short-term amenity barrier works, vegetation mulching, soil stripping and blast hole drilling near the surface would be less than the PNTLs at all receivers except the residences on “Figtree Hill” during all stages. Noise levels above the PNTL are predicted at the residences on “Figtree Hill”, depending on the stage.

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Cleary Bros would adopt the following additional mitigation and management measures in the event they are unable to reach a negotiated agreement with the owners of “Figtree Hill”.

1. Noise attenuation kits would be installed on surface operating mobile equipment, specifically bulldozers and the drill rig, which would reduce noise levels by 2dB(A) to 4dB(A).
2. Amenity barrier works, vegetation mulching, and soil stripping would only be undertaken when the wind direction is between 330° and 90° and at speeds of greater than 3m/s, i.e. from the “Figtree Hill” residences towards the Project Area.
3. An acoustic screen would be erected when undertaking drilling near the surface. This screen would be situated directly adjacent to the drill rig to minimise the transmission of noise towards the “Figtree Hill” residences.

An agreement has not yet been reached at the time of submitting the Development Application and EIS, however, Cleary Bros is continuing to discuss matters in good faith with the owners of “Figtree Hill” principally with respect to noise in order to reach a negotiated agreement. In the event a negotiated agreement is reached with the owners of “Figtree Hill”, these additional measures would not apply.

The Quarry’s Noise Management Plan would be updated to include the noise mitigation and management measures to be adopted throughout the Project life.

For the Project, further consideration has been given to the impact on the occupants of the residences on “Figtree Hill”. The 2021 Guideline outlines the need for the SIA to evaluate the negative social impacts of a project specifically addressing those who are expected to be adversely affected, including any vulnerable stakeholders.

Given the above, from a social impact perspective, with mitigation, the Project is predicted to have a medium social risk to the occupants of “Figtree Hill” residences – it is possible to occur with a minor magnitude. The mitigated impact for the more distant neighbours to the east and west, and for the Shellharbour LGA is considered low for both operational and cumulative noise impacts. This assessment recommends that Cleary Bros and the owners of “Figtree Hill” continue their open dialogue to potentially identify property specific measures to further mitigate the residual noise impacts on social amenity.

7.3.1.2 Dust

During the early phases of Project planning, design changes were made to realign the main haul road within the Project Area along northern and eastern limits to minimise predicted noise and dust impacts, predominantly to northern neighbours.

An Air Quality Impact Assessment (AQIA) was undertaken by Northstar (2022) as part of the EIS. This assessment uses three dispersion modelling scenarios to examine the potential impacts of the Project during operations. These scenarios were adopted to represent the potential maximum impacts of the Project on nearby sensitive receptors, taking into account spatial changes in equipment locations, and changes in lengths of haulage routes.

The results of the AQIA indicate that the air quality criteria are predicted to be achieved during the performance of general operations during the Project life. Notwithstanding this outcome, the Quarry Air Quality Management Plan (AQMP) will be updated to include the ongoing use of the following mitigation and management measures:

- Use of dust filters on drill rig;
- Use of water cart for dust suppression on haul roads;
- Efficient operation of activities within the quarry;
- Use of off road trucks with larger holding capacity where possible;
- Limiting of onsite vehicle speeds to less than or equal to 30km/h;
- Use of water sprays on all processing equipment;
- Stabilisation of soil and overburden stockpiles not intended to be disturbed for greater than 30 days; and
- Progressive rehabilitation of completed sections of the quarry throughout the quarry life.

A review of existing complaints for the Quarry for the period July 2017 to December 2020 (n=24) indicates that approximately 33% of the complaints received related to dust (n=8). A review of these complaints indicated that the Quarry was being operated appropriately, although one complaint did assist in the identification of a ruptured dust filter on the main processing plant which was replaced, and all complaints led to a review of site activities and control measures. Discussions of social amenity impacts including noise, dust and vibration and complaints received are part of the biannual CCC meetings.

A desktop study has also been performed in the AQIA to determine the potential for cumulative impacts from similar particulate generating operations conducted in proximity to the Project Area. Three other quarries have been identified in the surrounding area as shown in **Figure 7.1**.

There is potential for the surrounding quarry operations to result in cumulative impacts at the nearest identified sensitive receptors, and the proposed air quality monitoring program outlined in the AQMP is designed to manage that risk.

Given the outcomes of the technical assessment, if all management and mitigation measures are applied by Cleary Bros, the Project is unlikely to cause adverse air quality impacts for the community. It is possible in unpredicted weather conditions, that airborne dust could have an impact on the "Figtree Hill" landholding due to proximity and location of various stages of work. As such, the social impact is considered to be low for "Figtree Hill" (unlikely and minor). The impact is considered low for the nearby neighbours to the east and west and for the Shellharbour LGA with the impacts associated with this category expected to be direct and localised. This is for both operational and cumulative dust impacts.

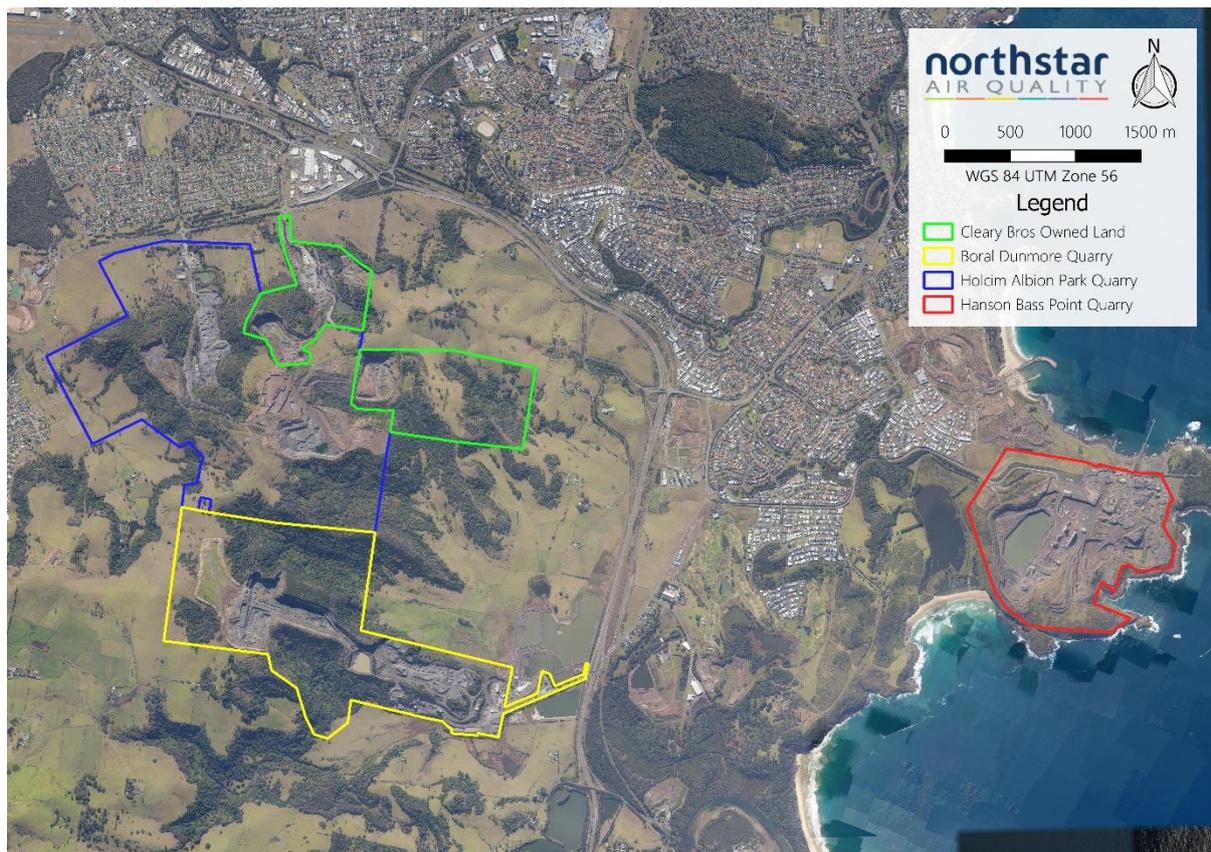
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Figure 7.1 Locations of surrounding hard rock quarrying activities

Source: Northstar Air Quality Pty Ltd

7.3.1.3 Vibration

In regard to amenity, during consultation stakeholders discussed feeling vibration and shaking of windows in the property were raised.

The NBIA includes a Blast Impact Assessment which addresses Project impacts in terms of ground vibration, overpressure and fly rock on the surrounding environment, including private dwellings.

Blasting will continue to be managed in accordance with the Quarry Noise and Blast Management Plan, which will be updated should the Project be approved. The assessment demonstrates that the blasting proposed for the Project can be effectively designed and managed to meet the relevant criteria with no exceedances predicted to occur. No adverse impacts on livestock or public safety have been identified.

In terms of cumulative impacts of blasting, the Quarry operates a successful blast notification and management system with the adjoining Quarry operated by Holcim in relation to the coordination of blasts to avoid concurrent blasting and reduce the potential for cumulative air blast overpressure and ground vibration impacts, which will continue for the life of the Project. Communication of blasting to local stakeholders and the EPA through emails and phone alerts, together with notifications posted on the Cleary Bros website have also been noted as a useful mechanism to inform the local community of blasting events.

Considering both the NBIA and the history of complaints and concerns raised in the past, the social impact is considered to be low for the occupants of the “Figtree Hill” residences (unlikely and minor). For the wider community, the mitigated social impact has been ranked as ‘low’ (unlikely to occur but of minor consequence) noting that a Noise and Blast Management Plan is in place, which tailor technical mitigation measures for each blast to ensure compliance with blasting limits. In relation to cumulative impacts of blasting on social amenity, the mitigated social impacts have also been assessed as ‘low’.

7.3.1.4 Health and wellbeing – amenity

During engagement, physical and mental wellbeing concerns were also raised by adjoining neighbours with mental health concerns centred on the frustrations and stresses caused by living with cumulative quarrying impacts, the associated decline in rural and social amenity and the devaluation of properties. Physical health impacts primarily associated with dust at adjoining properties were raised as a concern while mentally, the stress and uncertainty about the proposal and changes to adjacent use were also evident during consultation.

In terms of physical health, in a review of health indicators in the Shellharbour LGA, asthma hospitalisations data (NSW Health, 2020) indicates that hospitalisation rates (per 100,000 populations) in the Shellharbour LGA are presently well below the NSW average, having decreased from 2011-13 (100.3 per 100,000) to 2017-19 (88 per 100,000), as rates across NSW remain relatively stable (153.8 per 100,000 to 142.1 per 100,000). It should be noted that while the data shows there is significant variability in the Shellharbour rates from year to year, they still remain below the NSW average. **Figure 7.2** illustrates this data.

Looking at the total respiratory hospitalisation in the Illawarra Shoalhaven Local Health District (see **Figure 7.3**), rates of hospitalisations between 2011-12 and 2018-19 have remained fairly consistent (1,555.9 per 100,000 and 1,533.3 per 100,000) while as a comparison, NSW has slightly increased over the same time period (1,578 per 100,000 and 1,675.2 per 100,000). However, when considering the data, it is important to acknowledge the significant natural disaster events over the past few years including the drought and 2019 bushfires.

It is also worth noting that the resource does not contain any significant quantities of crystalline silica, and as such any risk associated with silica dust is a perceived risk only.

From a social perspective, given the mitigation measures for dust as outlined earlier, this impact on physical health is considered to be low for the occupants of the “Figtree Hill” residences and also for the nearby neighbours to the east and west – it is possible with a minimal magnitude. The impact is also considered to be low for the Shellharbour LGA with the impacts associated with this category expected to be direct and localised.

Mental health issues were also noted by stakeholders in relation to increasing levels of stress and anxiety associated with the continual encroachment of the Quarry and the associated impacts on way of life. A range of amenity issues (dust, noise and vibration) were seen to be particularly frustrating for near neighbours.

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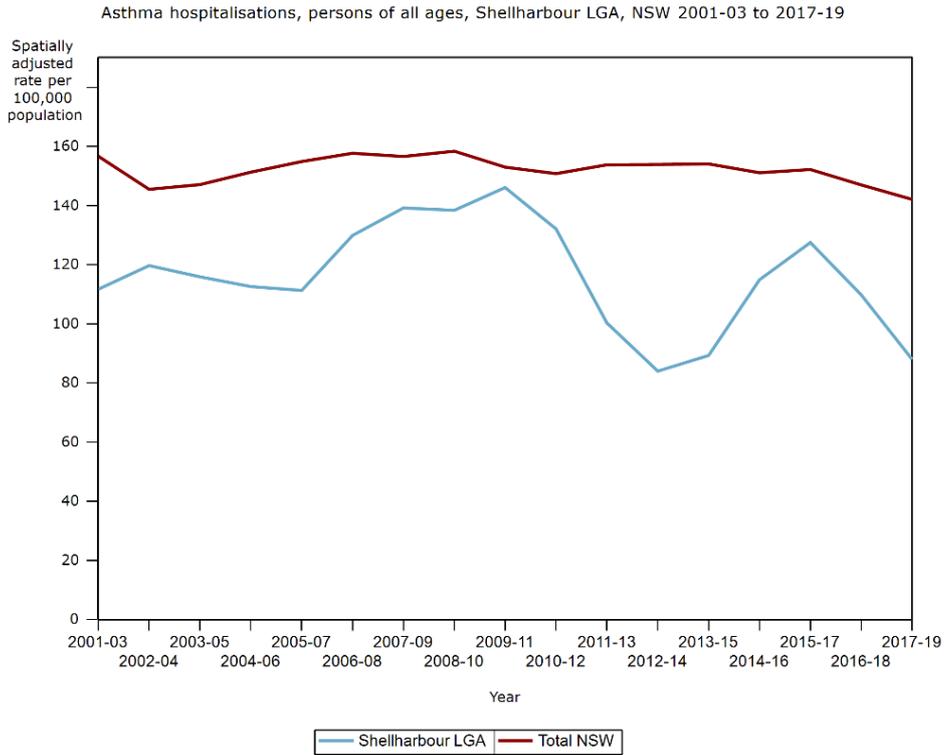


Figure 7.2 Asthma hospitalisations for persons of all ages, Shellharbour LGA (2001 – 2019)

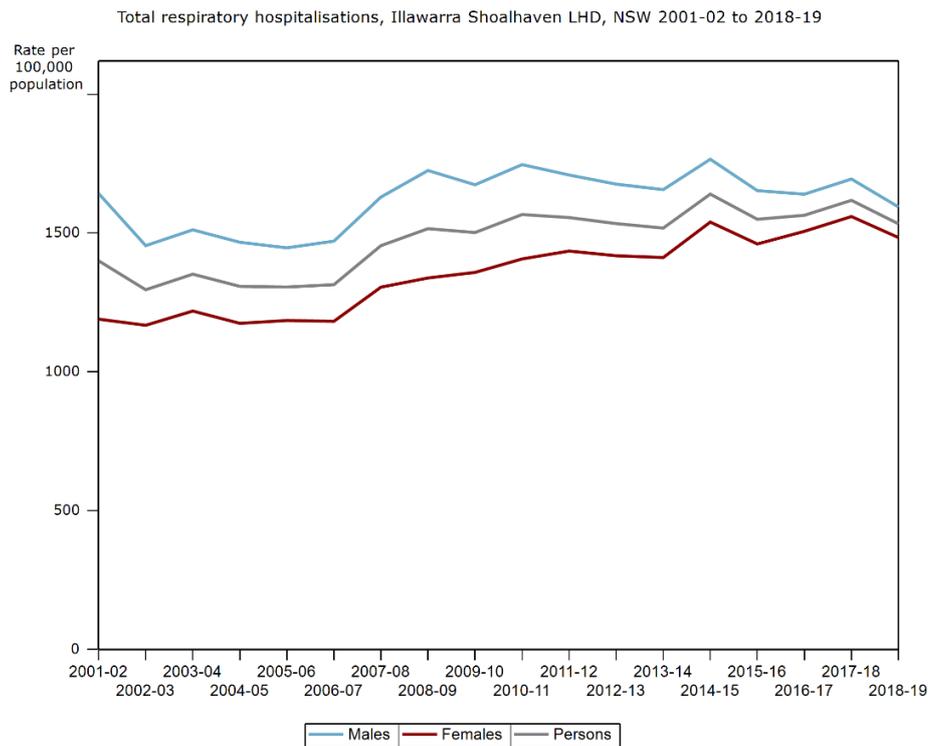


Figure 7.3 Respiratory hospitalisations for persons of all ages, Shellharbour LGA (2001 – 2019)

The Community and Regional Resilience Institute (CARRI) is focused on enhancing the resilience of communities and has developed the following definition for its use: “community resilience is the capability to anticipate risk, limit impact, and bounce back rapidly through survival, adaptability, evolution, and growth in the face of turbulent change” (CARRI, 2020).

In this respect, there is further discussion in **Section 8** in terms of enhancement of the Cleary Bros current social investment strategy to maximise the value of their social investment to strengthen social value, along with a review of the existing community engagement strategy. These social mitigation measures will strengthen Cleary Bros social value and engagement and help to maintain a resilient community that can anticipate risk and adapt to change.

Consequently, there is a low probability that the discussion around the Project is contributing to mental health issues for the nearby neighbours, with a minor consequence, resulting in a medium social impact (for those most directly affected). From a wider Shellharbour LGA perspective, this impact is considered low.

7.3.2 Expansion of existing land use resulting in a disadvantage to personal property (negative) for nearby neighbours

The impact of the Project on property values was raised by some nearby neighbours, with suggestions that the presence of the operations, and the Project, was driving property values down in the locality. There was also a fear that the Project, and the ongoing presence of the Quarry would impact on the ability to sell properties for those who may wish to relocate or move out of the area in the future. In addition, there were concerns raised that the Quarry was impacting on the ability for individual properties to create additional income sources (for example, building a new dwelling that could be rented or used for accommodation).

There was also a concern for some near neighbours that they were not fairly compensated for the impacts that they were afforded. A review of the NSW Valuer General report for the South Coast (Valuer General of NSW, 2020) identifies that the total land value for the South Coast Region of NSW increased slightly (2.3%) over the 12-month period between 1 July 2019 to 1 July 2020. Specifically, in relation to the Project Area, rural land values in the region were increased by 7.7% in Shellharbour. The report stated this was due to the demand from purchasers transitioning to rural-residential lifestyle properties in proximity to the coast.

In the absence of up-to-date and specific information relating to property values proximal to the Project Area, it is difficult from a social impact perspective, to ascertain the technical risks of the Project on property values. The perceived uncertainty relating to property sales, currently or in the future, for local landholders located nearby to the Project also presents a difficult issue to manage.

However, given the Project Area is largely confined to an area zoned RU1 (Primary Production), the Council and State resource designations that have been assigned to the area for many years, and the even longer history of quarrying in the area, it is predicted that any change to property values would have already been realised in the market, and any further changes related to the Project would be minimal, if applicable at all.

Notwithstanding the above, the impact of the Project on property values given the change to the extraction area and the known history of quarrying in the area, it is considered unlikely with a minor consequence and categorised as a low social impact for the nearby neighbours. From a wider Shellharbour LGA perspective, this impact is considered medium (positive) when

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considering that the Project will likely keep the continued employment, support the construction of homes, industrial buildings, roads and public infrastructure and increase people's ability to sustain themselves through continued employment and associated indirect contributions to the wider community.

7.3.3 Changes to the aesthetic value and amenity affecting surroundings and way of life

The Quarry is located within a Significant Mineral Resource Area in close proximity to several other quarry operations, operated by Boral, Holcim and Hanson. The character of the immediate visual environment is strongly influenced by existing quarrying operations, with quarrying making up a large part of the surrounding land use in the local area.

Early in the assessment process, it was recognised that the Project would create some visual impacts on some of the surrounding localities. As a result, Project refinements were made to minimise these impacts including:

- Inclusion of amenity barriers and tree screening to minimise visual impacts; and
- Sequencing of extraction to minimise visual impacts to the communities to the east, and particularly to visual impacts when viewed from the "Figtree Hill" residences throughout the majority of the Project life.

These mitigation measures were carried forward into the Visual Impacts Assessment (VIA) (Corkery, 2022) that was undertaken as part of the EIS process and further enhanced. In terms of the bunding and screening, Cleary Bros proposes to construct amenity barriers and plant tree screens during the early stages of extraction in Stage 7 in the locations displayed on **Figure 7.4**.

With these mitigation measures in place, the occupants of the residences on "Figtree Hill" would still experience some visual impacts during the life of the Project due to the topography and locations of the existing dwellings and the approved residence on the property.

In terms of the wider LGA, the Project would progressively expose upper extraction faces and benches that would be visible to those properties on the eastern side of the Princes Highway as well as motorists. The VIA finds that the planned early planting of vegetation on the benches would substantially reduce the visibility of these extraction faces and in effect would soften the dark grey colour and introduce colours that would blend with the natural colours of vegetation in the foreground adjacent to the Project Area and in the far distance. The VIA concluded that the impacts of the constructed amenity barriers would be acceptable given the manner in which they would be vegetated and become part of the overall landscape.

Given the baseline of the existing Quarry, if the recommended mitigation measures in the VIA are applied by Cleary Bros, it is assessed that the Project will have a medium mitigated social impact on the Shellharbour LGA, including those properties on the eastern side of the Princes Highway and motorists (possible to occur and minor magnitude).

In consideration of the VIA it is assessed that the Project will have a medium mitigated social impact on "Figtree Hill" (possible to occur and moderate magnitude). This assessment recommends that Cleary Bros and the owners of "Figtree Hill" continue their open dialogue to potentially identify property specific measures to further mitigate the residual impacts on visual amenity.

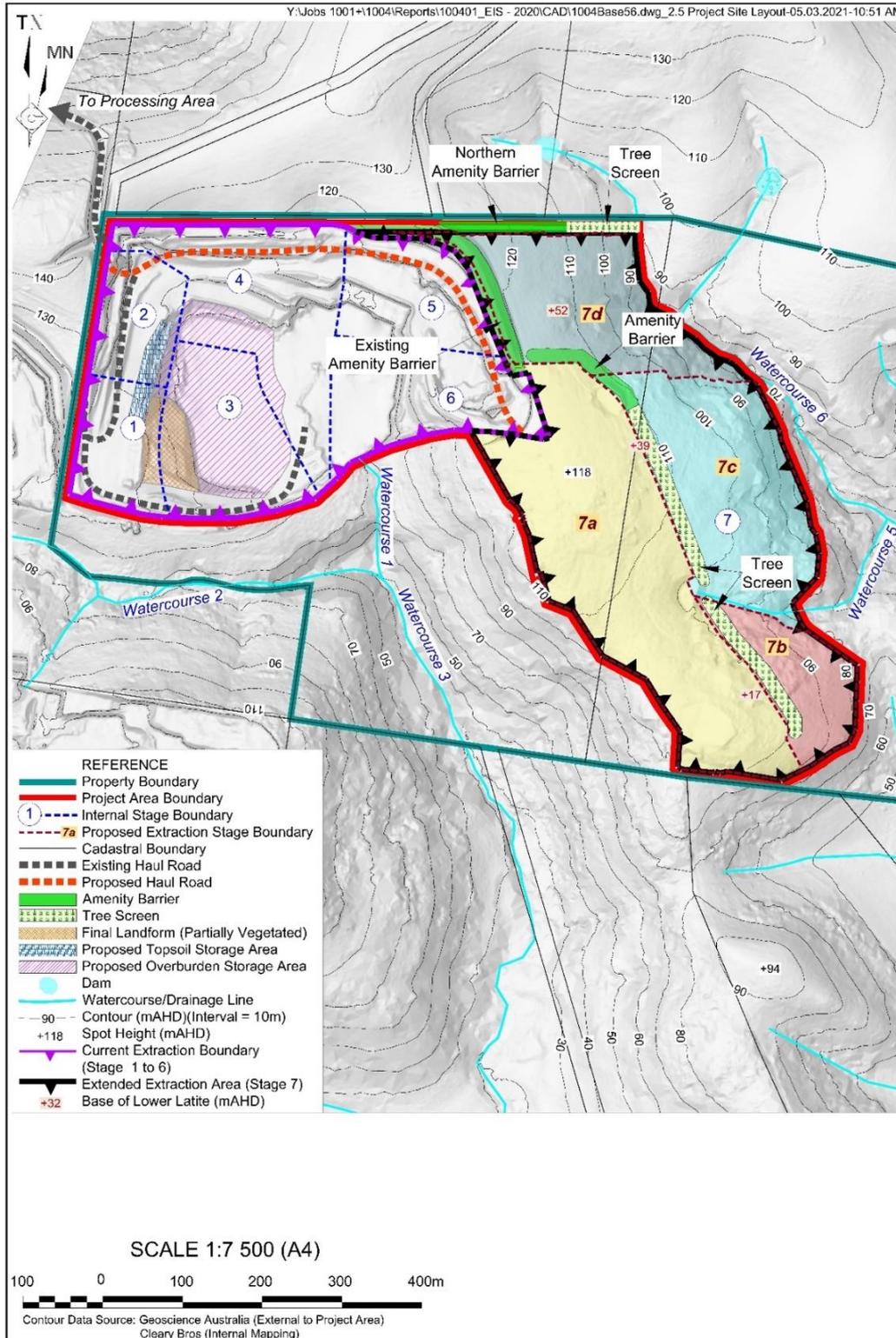


Figure 7.4 Indicative project area layout

Source: R.W. Corkery & Co

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During consultation, a second adjacent landowner also raised some concerns around visibility of the extraction area, however the VIA found that given the topography of the area, the property would not experience a negative visual impact from any current approved dwellings on the property, resulting in a low social impact.

7.3.4 Enhanced community wellbeing from continuation of job opportunities and community investment

Given that the Project would extend the life of Cleary Bros Quarry, the social and economic benefits associated with company, workforce and supplier expenditure are expected to continue for any operational time period extension. A significant proportion of employment and business opportunities would continue to flow to the surrounding region. These benefits would not occur should the Project not proceed.

In terms of community investment, Cleary Bros is committed to supporting several community initiatives in the Project locality. The assessment finds that the Project will result in a number of positive impacts to the locality and the region.

Local and State government will receive economic benefits, including revenue from taxes and levies. In addition, the Commonwealth Government will also receive revenue from the Project, through means including company tax, excise on imported equipment and goods, fuel excise and other taxes such as goods and services tax and income tax.

The Project supports Objective 10 of the Draft Illawarra Shoalhaven Regional Plan 2041 (NSW Department of Planning, Industry and Environment, 2020), by seeking to make an ongoing economic contribution to the region and to Sydney. It would achieve this by extending the Quarry's ability to supply product to the development industry, servicing infrastructure, commercial, industrial and residential Projects. It also considers opportunities for strategic biodiversity conservation measures through the preparation of the Environmental Impact Statement.

In addition, it would support the Shellharbour City Community Strategic Plan 2018-2028 (Shellharbour City Council, 2018) by helping to secure the productivity and capacity of existing resource land. This would enable SCC to achieve its key objectives.

It is noted that Cleary Bros makes a significant contribution to many local charities and initiatives. As Cleary Bros reviews their plans for future contributions to the community, it is recommended that Cleary Bros reviews its current social investment strategy to maximise the value of their social investment. This could include reviewing their current contributions to the community to ensure they align their social investment with current and emerging issues, trends and priorities of relevance to their business and communities. This will help to strengthen social value by making an enhanced contribution to the environment and society.

If the enhancement opportunities relating to social investment could be achieved, the mitigated impact of the Project would be high (positive – likely to occur, with a moderate magnitude).

7.3.5 Distributive equity of economic benefits, between the region and nearby neighbours

Given that this impact is closely linked to the above, it is considered that, as residents of the wider Shellharbour LGA, nearby neighbours will benefit from the positive impacts that the Project has on the economy more broadly.

Cleary Bros also recognises that all individuals have a different perspective on the acceptability of amenity impacts such as noise and dust. As part of Cleary Bros existing community engagement approach, a CCC is held biannually, and individual meetings with stakeholders are offered, providing opportunities for engagement and provision of detailed information regarding the operations. This also provides the opportunity for discussion of personalised concerns and potential solutions to the identified issues. Cleary Bros will continue to implement this approach to ensure that there is a mechanism in place to respond to landholder issues and concerns.

In terms of enhancement, as outlined above, it is recommended that Cleary Bros reviews their current social investment strategy to maximise its value. General community funding can provide enduring value at a broader level, but this differs from community investments and mitigation measures that directly benefit impacted localities. There is an opportunity to consult with the established CCC to help select community investment opportunities and/or projects which will also help with building trusting and mutually beneficial relationships.

There is also an opportunity to further enhance Cleary Bros engagement approach by reviewing the community engagement strategy in the Quarry's Environmental Management Plan. This will provide a level of transparency into the engagement process and promote ongoing enhancements to communications between Cleary Bros and its nearby neighbours.

Consequently, if the recommended enhancements are implemented, the mitigated social impact in relation to this issue would be considered low (unlikely, with a minor magnitude).

7.3.6 Cumulative impacts from surrounding quarries resulting in reduced social amenity and wellbeing for nearby neighbours

The Quarry is located in Croom, NSW. It is south of Albion Park Rail and the East West Link, west of Flinders and Shell Cove West and the Princes Highway, and east of Albion Park. The Holcim Quarry and Boral Dunmore Quarry are located to the west and south, respectively (refer to **Figure 7.1**).

The cumulative impacts of the Project from an amenity perspective were explored in Section 7.3.1.

Given the outcomes of technical assessments, the existing community baseline and Project key features, the cumulative impacts of the Quarry on social amenity have been assessed as a low mitigated social impact for both adjoining property owners and the Shellharbour LGA (unlikely to occur with a minor magnitude).

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7.3.7 Lack of trust in systems used to influence operational management systems and project design

Historically, incidences of mistrust are evident in development projects where local residents may feel disempowered by SSD projects that may be proposed and approved.

During consultation with nearby neighbours concerns were raised regarding the location of both noise and dust monitors used and the accuracy of the data which is used for reporting. The difficulties in commissioning real-time dust monitors for the Quarry was also raised in relation to the accuracy of measuring the concentration of fine dust particles in the area and replacing old existing monitors.

The location of noise and dust monitors are determined by the site's Noise and Blasting Management Plan and Air Quality Management Plan. The locations are deemed to be compliant with applicable standards and have previously been raised with DPIE.

Cleary Bros concedes that historically, at times there have been some dust gauges that were not effective however this issue has since been rectified by Cleary Bros. In regard to the real-time monitors, as outlined in the most recent AQMP for the site (Northstar Air Quality, 2017) and the most recent Annual Review (Cleary Bros, 2020), an updated air quality monitoring network incorporating real-time measurements of PM10 is proposed, which will allow an adaptive management approach to minimising air emissions. As outlined on page 35 of Cleary Bros (2020):

“As part of Modification 3 of the DC, Cleary Bros committed to establishing real-time particulate monitors at three locations around the site. During the period, Cleary Bros attempted calibration of the new real-time PM10 monitors against the existing High Volume Air Sampler (HVAS), however encountered difficulties with this process. The real-time particulate monitors have shown excellent consistency between the monitors, but less than acceptable correlation with the HVAS unit, especially during the cooler months of the year. These units are currently with the manufacturer for an update which is hoped will improve their performance, and which will then allow for their deployment at the designated locations described in the Air Quality Management Plan”.

From a social impact perspective, Australian psychologist and social researcher, Hugh Mackay notes that “people are more likely to support a change which affects them if they are consulted before the change is made” (H Mackay, 1994). After reviewing the results of the environmental and social assessments and the consultation undertaken to date, a strategy has been developed in relation to property specific measures. The open dialogue between Cleary Bros and the owners of “Figtree Hill” has improved in recent years which has enabled better opportunities to discuss matters of interest to the owners of “Figtree Hill”.

Cleary Bros has the opportunity to improve communications and create greater transparency by further consulting with nearby neighbours around the use of environmental monitoring activities associated with the Project and enhancing their community engagement strategy.

Considering technical assessments and the implementation of identified mitigation strategies and enhancement measure, the mitigated impact is considered to be low for occupants of the “Figtree Hill” residences – it is possible to occur with a minimal magnitude.

7.3.8 Further changes to land use affecting community character inducing a sense of loss of European heritage

The Project Area lies within the Wentworth Hills cultural landscape, comprising three farms, namely, “Belmont”, “The Hill” and “Kyawana”. The “Belmont” farm is listed as being of local significance under Schedule 5 of the Shellharbour Local Environmental Plan (LEP) 2013. Three other items within the Stage 7 extension area (i.e., the former bails and dairy as well as an extant dry-stone wall) are considered to have moderate historic archaeological potential. The proposed works would involve the demolition of the Belmont main house and all other adjacent structures.

A Statement of Heritage Impacts (Biosis 2020a) has been prepared for the Project and determined that there is high archaeological potential associated with the main house, and moderate archaeological potential associated with the former location of the bails and dairy and two extant stone walls. It was also assessed to be likely that archaeological material may be present in other locations including of the extant garage, former feeding stalls and paddock fence lines, however, these have been assessed as not holding heritage significance.

The assessment also found that the proposed works will have a visual impact on surrounding heritage listed items. Specifically, the Hill Farm Complex as the location of the Stage 7 extension area may be visible from this heritage item and careful consideration of the proposed extraction area is required to minimise visual impacts (refer to Section 7.3.3).

As part of the assessment a structural integrity report found that elements of Belmont are in substantial disrepair and do not meet the requirements of current and applicable building codes or Australian Standards and it is impractical and unfeasible to undergo rectification works to upgrade the existing structure to acceptable levels.

The following mitigation would be implemented as part of the Project as recommended in the assessment:

- Archival recording of Belmont;
- Archaeological investigation required;
- Salvage and reconstruction of some dry-stone walls; and
- Update the Heritage Management Plan.

Subsequently, the assessment found that, if the recommendations are exacted, the demolition of the heritage items are permissible from a heritage perspective.

Given the findings of the technical assessment and implementation of mitigation measures, the social impact is considered to be medium for the occupants of the “Figtree Hill” residences – it is likely to occur with a minor mitigated impact. The mitigated impact is also considered to be medium for the local community.

7.3.9 Further changes to land use affecting community character inducing a sense of loss of Aboriginal Heritage

An Aboriginal Cultural Heritage Assessment (ACHA) (Biosis 2021b) was undertaken for the EIS and found that the Project would not impact on Aboriginal heritage values. The assessment found that within the study area, there are no recorded Aboriginal sites that may be subject to harm, and that the area has low subsurface archaeological potential due to the exposed areas of bedrock and limited soil development. It also noted that the steep nature of the spur line slopes and the distance to a first order creek indicate that the potential for Aboriginal sites to occur in the study area is low.

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Similarly, no Aboriginal sites or areas of potential archaeological deposit were identified within the study area. As a result, the study area has been assessed as low archaeological potential to contain Aboriginal sites.

Considering the heritage assessment and the implementation of recommendations from the ACHA, the mitigated impact is considered to be low - it is unlikely to occur with a minimal magnitude.

7.3.10 Further changes to land use affecting the availability of naturally occurring groundwater used for livestock, impacting livelihoods

A Groundwater Impact Assessment (GIA) has been undertaken to assess potential impacts to groundwater due to the Project. Specifically in regards to local springs, the assessment found that identified springs are unlikely to be impacted by the Project, as they likely rely on localised rainfall recharge.

It is recommended that Cleary Bros thoroughly convey the findings of the GIA to the nearby neighbour who raised this issue and offer the resident the opportunity to review the outcomes of the groundwater study with the author.

Considering the technical assessment, the mitigated impact is considered to be low - it is unlikely to occur with a minor magnitude.

7.4 IMPACT OF NOT PROCEEDING WITH THE PROJECT

The impact of not proceeding with the extension of the current extraction area within the Albion Park Quarry include the following.

- The opportunity to extend the current extraction area to provide a range of aggregates and road pavement products for use in the Illawarra and Greater Sydney regions would be foregone.
- The opportunity for an independent and locally owned supplier of quarry products to the Illawarra region would be foregone.
- The ability to supply bespoke quarry products to the Illawarra and Greater Sydney regions would be significantly limited.
- The opportunity for Cleary Bros to obtain quarry products at a competitive price for use in the broader Cleary Bros Group would be foregone.
- The opportunity to maintain the current employment levels in the local area would be foregone.
- The economic benefits to the local area, NSW and Australia would not occur.
- The adverse environmental impacts attributed to the Project would not occur. It is considered that the level of predicted impacts would be acceptable given the extent of mitigation measures integrated into the design and operation of the Project.

7.5 SOCIAL IMPACT SUMMARY

Table 7-2 provides a summary of the predicted mitigated social impacts in relation to the Project. It considers enhancement, mitigation and residual impacts.

Table 7-2 Social impact summary

| Impact to people | Social impact category | Affected parties | Magnitude and likelihood of impact | Impact significance rating (Unmitigated) | Project aspect | Project-specific mitigation measures | Magnitude and likelihood of impact | Residual impact significance |
|--|--|--|------------------------------------|--|----------------|--|------------------------------------|------------------------------|
| Increase in operational noise causing a decline in social amenity, health or way of life for nearby neighbours and personnel Operational and cumulative | Way of life Surroundings Health and wellbeing | Adjoining property to the north ("Figtree Hill") | likely / moderate | high | operational | Update of Noise and Blast Management Plan (NBMP) to include a range of additional mitigation and management measures specific to Stage 7. Ongoing open and transparent discussion of social amenity impacts at CCC meetings | possible / minor | medium |
| | | Nearby neighbours to east | possible / moderate | medium | | | unlikely / minor | low |
| | | Surrounding suburbs | unlikely / minimal | low | | | unlikely / minimal | low |
| Increase in operational dust causing a decline in social amenity, health or way of life for nearby neighbours and personnel Operational and cumulative | Way of life Surroundings Health and wellbeing | "Figtree Hill" | possible / moderate | medium | operational | Quarry AQMP will be updated to include mitigation and management measures including: Use of dust filters on drill rigs; Use of water cart for dust suppression on haul roads; | unlikely / minor | low |
| | | Nearby neighbours to east | possible / moderate | medium | | | unlikely / minor | low |
| | | Surrounding suburbs | unlikely / minimal | low | | | unlikely / minor | low |

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| Impact to people | Social impact category | Affected parties | Magnitude and likelihood of impact | Impact significance rating (Unmitigated) | Project aspect | Project-specific mitigation measures | Magnitude and likelihood of impact | Residual impact significance |
|------------------|------------------------|------------------|------------------------------------|--|----------------|--|------------------------------------|------------------------------|
| | | | | | | Efficient operation of activities within the quarry; Use of off-road trucks with larger holding capacity where possible; Limiting of onsite vehicle speeds to 30km/h; Use of water sprays on all processing equipment; Stabilisation of soil and overburden stockpiles not intended to be disturbed for greater than 30 days; and Progressive rehabilitation of completed sections of the quarry throughout the quarry life | | |

| Impact to people | Social impact category | Affected parties | Magnitude and likelihood of impact | Impact significance rating (Unmitigated) | Project aspect | Project-specific mitigation measures | Magnitude and likelihood of impact | Residual impact significance |
|--|--|---------------------------|------------------------------------|--|----------------|---|------------------------------------|------------------------------|
| | | | | | | Implementation of the real-time monitoring program Ongoing open and transparent discussion of social amenity impacts at community consultative committee meetings. | | |
| Increase in vibration causing a decline in social amenity, health or way of life for nearby neighbours and personnel Operational and cumulative | Way of life Surroundings Health and wellbeing | "Figtree Hill" | possible / moderate | medium | operational | Mitigation and management measures outlined in the NBMP, which will be updated should the Project be approved Ongoing regular blasting communications | unlikely / minor | low |
| | | Nearby neighbours to east | possible / minor | low | | | unlikely / minimal | low |
| | | Surrounding suburbs | unlikely / minimal | low | | | unlikely / minor | low |
| Amenity impacts and the Project | Health and wellbeing | "Figtree Hill" | possible / minor | medium | operational | Revision and update of relevant | possible / minimal | low |

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| Impact to people | Social impact category | Affected parties | Magnitude and likelihood of impact | Impact significance rating (Unmitigated) | Project aspect | Project-specific mitigation measures | Magnitude and likelihood of impact | Residual impact significance |
|---|-----------------------------|--|------------------------------------|--|----------------|---|------------------------------------|------------------------------|
| leading to a decline in physical health and wellbeing | | Nearby neighbours to east | possible / minor | medium | | project management plans Enhance social investment strategy to strengthen social value | possible / minimal | low |
| | | Surrounding suburbs | unlikely / minimal | low | | | unlikely / minimal | low |
| Amenity impacts and the Project leading to a decline in mental health and wellbeing | Health and wellbeing | “Figtree Hill” | possible / minor | medium | operational | Enhance Cleary Bros existing engagement strategy in the QEMP | unlikely / minor | low |
| | | Nearby neighbours to east | possible / minor | medium | | | unlikely / minor | low |
| | | Surrounding suburbs | unlikely / minimal | low | | | unlikely / minimal | low |
| Expansion of existing land use resulting in a disadvantage to personal property for nearby neighbours | Livelihoods | Adjoining properties | possible / minor | medium | operational | Revision and update of relevant project management plans. | unlikely / minor | low |
| | | Surrounding suburbs | possible / minor | medium (positive) | | | possible / minor | medium (positive) |
| Changes to the aesthetic value and amenity affecting surroundings and way of life | Surroundings Way of life | “Figtree Hill” | likely / major | high | operational | Inclusion of amenity barriers and tree screening to minimise visual impacts. | possible / moderate | medium |
| | | Nearby neighbours to east and local community to | possible / moderate | medium | | | possible / minor | medium |

| Impact to people | Social impact category | Affected parties | Magnitude and likelihood of impact | Impact significance rating (Unmitigated) | Project aspect | Project-specific mitigation measures | Magnitude and likelihood of impact | Residual impact significance |
|--|------------------------|-------------------------------------|------------------------------------|--|----------------|--|------------------------------------|------------------------------|
| | | the east beyond the Princes Highway | | | | Sequencing of extraction to minimise visual impacts to the communities to the east, and particularly to visual impacts to "Figtree Hill" throughout the majority of the project. | | |
| | | Road users of Princes Highway | possible / minor | medium | | | unlikely / minor | low |
| Enhanced community wellbeing from continuation of job opportunities and community investment | Way of life Community | Surrounding suburbs | likely / moderate | high (positive) | operational | Review social investment strategy to strengthen social value. | likely / moderate | high (positive) |
| Distributive equity of economic benefits, between the region and nearby neighbours | Way of life Community | Nearby neighbours | possible / minor | medium | operational | Review social investment strategy to strengthen social value Enhance Cleary Bros existing engagement | unlikely / minor | low |

SPECIALIST CONSULTANT STUDIES

Social Impact Assessment



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| Impact to people | Social impact category | Affected parties | Magnitude and likelihood of impact | Impact significance rating (Unmitigated) | Project aspect | Project-specific mitigation measures | Magnitude and likelihood of impact | Residual impact significance |
|--|-------------------------------|--|---|---|-----------------------|---|---|-------------------------------------|
| | | | | | | strategy in the QEMP | | |
| Cumulative Impacts from surrounding quarries resulting in reduced social amenity and wellbeing for nearby neighbours | Way of life Community | Adjoining properties Surrounding suburbs | unlikely / minor | low | operational | Revision and update of relevant project management plans | minor / unlikely | low |
| Lack of trust in systems used to influence operational management systems and project design | Decision Making Systems | "Figtree Hill" | possible / moderate | medium | operational | Enhance Cleary Bros existing engagement strategy in the QEMP. | possible / minimal | low |
| | | Nearby neighbours to east and local community to the east beyond the Princes Highway | unlikely / minimal | low | | | unlikely / minimal | low |
| Further changes to land use affecting community character inducing a | Culture | "Figtree Hill" and the wider Surrounding suburbs | likely / moderate | high | operational | Archival recording of Belmont Archaeological investigation required | likely / minor | medium |

| Impact to people | Social impact category | Affected parties | Magnitude and likelihood of impact | Impact significance rating (Unmitigated) | Project aspect | Project-specific mitigation measures | Magnitude and likelihood of impact | Residual impact significance |
|---|------------------------|---|------------------------------------|--|----------------|---|------------------------------------|------------------------------|
| sense of loss of European heritage | | | | | | Salvage and reconstruction of some dry-stone walls Update the Heritage Management Plan | | |
| Further changes to land use affecting community character inducing a sense of loss of Aboriginal Heritage | Culture | Aboriginal people and the wider community | possible / minimal | low | operational | Update Heritage Management Plan | unlikely / minimal | low |
| Further changes to land use affecting the availability of naturally occurring groundwater used for livestock, impacting livelihoods | Livelihoods | "Figtree Hill" | possible / moderate | medium | operational | Update Water Management Plan | unlikely / minor | low |
| | | Wider LGA | unlikely / minor | low | operational | Review outcomes of SIA with owners of "Figtree Hill" | unlikely / minor | low |

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7.6 SOCIAL IMPACT RECOMMENDATIONS AND CONCLUSION

Table 7-2 summarises the predicted social impacts for the Project (unmitigated and mitigated, positive and negative). The predicted negative impacts are primarily expected to be direct and localised – which isn't unexpected given the nature of the Project. The Project will retain maximum annual production at the current approved level and there are no changes proposed to the processing operations, product loading or product despatch. There are also no changes to haulage or an increase in employment – rather the continuation of employment.

As a result, the Project would result in positive impacts to the wider community in terms of the continuation of employment, workforce and supplier expenditure, and community investment. A significant proportion of employment and business opportunities would continue to flow to the surrounding region. These benefits would not occur should the Project not proceed.

The Project's negative social impacts are predicted to be experienced more locally, by the occupiers of "Figtree Hill" primarily due to the extraction area moving closer to the residences on this property. There are also some residual visual impacts to properties on the eastern side of the highway along with the physical loss of European heritage items.

A number of mitigation measures are identified to address the social risks including:

- Updating various management plans to include the range of mitigation and management measures outlined in the various technical assessments;
- Ongoing open and transparent discussions of social amenity impacts at the biannual CCC meetings;
- Ongoing regular blasting communications;
- Enhanced social investment strategy to strengthen social value; and
- Enhancement of Cleary Bros existing community engagement strategy in the QEMP including detailing the process for responding to unanticipated events, breaches, grievances, and non-compliance.

This assessment also recommends that Cleary Bros and the owners of "Figtree Hill" continue their open dialogue to potentially identify property specific measures to further mitigate the residual impacts on social amenity (i.e. noise and visual impacts).

It is also recommended that Cleary Bros monitor social impacts and a framework is discussed in Section 8. There are some residual risks remaining (moderate) specifically relating to "Figtree Hill".

8 MONITORING AND MANAGEMENT FRAMEWORK

A key aspect of any SIA is the development of a framework to monitor a project's impact over time - often referred to as a social impact management plan. The SIA report will consider a framework to collect social data to monitor commitments made in the SIA, namely:

- Key areas of predicted project impact, through consultation with neighbouring properties and other nearby landowners, to determine if experienced impacts are in line with predicted impacts; and
- Evaluation of community contributions to ensure benefits to local stakeholders.

8.1 MONITORING EFFECTIVENESS AND MITIGATION AND ENHANCEMENTS

This section provides a high-level overview of a framework for monitoring social change in relation to the Project, and how this relates to project-related activities. In doing so, the framework will gather data that can be used to assess the effectiveness of mitigation measures and initiatives.

It is considered best practice in social outcomes measurement to draw upon a range of methods, data sources, indicator and data types (e.g. objective vs. subjective, qualitative vs. quantitative, leading versus lagging indicators). Therefore, the proposed monitoring framework will draw upon multiple methods including:

- Monitoring social trends that will provide context to interpret data from other elements of the framework and provide an appreciation of community change;
- Monitoring organisational inputs and outputs which will provide an understanding of what Cleary Bros is contributing to the community e.g. in relation to employment, expenditure, local procurement;
- Monitoring outcomes of community projects and investments to understand what impact these are having at the community level;
- Monitoring objective indicators of impact which will seek to confirm that Cleary Bros is monitoring key risks and trends in relation to key impact areas identified through the SIA process e.g. monitoring of key amenity impacts such as noise and air quality; and
- Monitoring community perceptions of impact (e.g. feelings of trust towards Cleary Bros, landholder experience of social impacts, level of concern with experienced impacts and satisfaction with impact management) through regular and structured engagement with the community to confirm existing and identify emerging issues and impacts in a proactive manner – such as the CCC.

Table 8-1 provides a framework for monitoring the predicted impacts against the actual impacts of the Project. This framework relates specifically to those ranked as having a high or medium residual impact.

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The practical arrangements for monitoring and managing social impacts can be integrated into the overarching environmental management systems.

In addition, the framework should consider a program for the ongoing analysis of social risks and opportunities arising from the project, including timing and frequency of reviews. This could include a regular analysis of complaints to see if there are any emerging issues relating to the Project, formal and informal feedback from the community, consultation through the CCC and any technical monitoring outcomes.

Table 8-1 Consideration of a monitoring framework for the Project

| Desired outcome | Indicators | Target | Methodology | Frequency | Monitoring Responsibility |
|---|--|---|--|---|----------------------------------|
| Minimise impacts on social amenity | Compliance with relevant management plans | Compliance | Monitoring as outlined in relevant plans | As outlined in management plans | Environmental Officer |
| | Avoidable complaints (i.e. those found to be caused by non-compliance) | Zero | Complaint's analysis | Annually | |
| Visual impact at "Figtree Hill" residences minimised | Tree planting and screen undertaken | Tree planting undertaken and growing at rate predicted in VIA | Monitoring as outlined in Vegetation Management Plan | Biannually | Environmental Officer |
| Enhanced social value through considered community investment | Community investments spend / sector | Investments to be beneficial to local community | Review of community investment strategy to ensure investments are targeted towards local community charities and sporting groups. | Annually | Environmental Officer |
| Minimise sense of loss of culture in relation to European heritage | Recommendations of Heritage Impact Assessment implemented | Compliance | Monitoring as outlined in relevant plan | As outlined in plan | Environmental Officer |
| Expansion of existing land use resulting in a disadvantage to personal property | Compliance with relevant management plans % of localised socio-economic benefit (employment, spend) | Compliance | Monitoring as outlined in relevant plans Analysis of business statistics including employment, spend, suppliers and projects to | As outlined in plans As required Annually | Environmental Officer |

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| Desired outcome | Indicators | Target | Methodology | Frequency | Monitoring Responsibility |
|--|--|--|---|--|---------------------------|
| for nearby neighbours | | | calculate localised spending | | |
| Amenity impacts and the Project leading to a decline mental health and wellbeing | Community investments spend / sector Community satisfaction with level of information provision | Improving community awareness and knowledge of monitoring data Building trust through transparency of information provision | Review of community investment strategy Investment opportunities to target local community charities and sporting groups Enhancement of Community engagement plan in QEMP Community feedback | Annually Biannually Annually Annually | Environmental Officer |
| Lack of trust in systems used to influence operational management systems and project design | Community satisfaction with level of information provision | Improving community awareness and knowledge of monitoring data Building trust through transparency of information provision | Open and transparent consultation with adjoining properties Enhance Cleary Bros existing engagement strategy in the QEMP and continue to make monitoring data easily available Community feedback | Ongoing Annually Annually | Environmental Officer |

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ATTACHMENT 1 – COMPLIANCE MATRIX

Attachment Table 1-1

| Review questions (appendix C of the 2020 draft Guideline) | Location in this report (if applicable) |
|---|---|
| General | |
| 1. Does the lead author of the SIA Report meet the qualification and experience requirements? | Certification page |
| 2. Has the lead author of the SIA Report provided a signed declaration certifying that the assessment does not contain false or misleading information? | Certification page |
| 3. Would a reasonable person judge the SIA Report to be impartial, rigorous, and transparent? | |
| Project's social locality and social baseline | |
| 4. Does the SIA Report identify and describe all the different social groups that may be affected by the project? | Section 3 |
| 5. Does the SIA Report identify and describe all the built or natural features that have value or importance for people, and explain why people value those features? | Section 5 |
| 6. Does the SIA Report identify and describe historical, current, and expected social trends or social changes for people in the locality, including their experiences with this project and other major development projects? | Section 4 and Section 5 |
| 7. Does the social baseline study include appropriate justification for each element, and provide evidence that the elements reflect both relevant literature and the full diversity of views and potential experiences? | Section 4 and Section 5 |
| 8. Does the social baseline study demonstrate social-science research methods and explain any significant methodological or data limitations? | Section 4 and Section 5 |
| Identification and description of social impacts | |
| 9. Does the SIA Report adequately describe potential social impacts (whether negative, positive, tangible, intangible, perceived, and/or cumulative) from the perspectives of how people may experience them, and explain the research used to identify them? Where the assessment is partially complete, and expected to be completed in Phase 2 SIA, has this been explained? | Section 6 |
| 10. Does the SIA Report apply the precautionary principle to social impacts, and consider how they may be experienced differently by different people and groups (i.e., distributive equity)? | Section 6 |
| 11. Does the SIA Report describe how the preliminary analysis influenced both the project design and EIS Engagement Strategy? | Section 6 and Section 7 |
| Community engagement | |
| 12. Were the extent and nature of engagement activities appropriate and sufficient to canvass all relevant views, including those of vulnerable or marginalised groups? | Section 4 |
| 13. How have the views, concerns, and insights of affected and interested people influenced both the project design and each element of the SIA Report (e.g., the social baseline, predicting impacts, and mitigation/enhancement measures)? | Section 4, Section 6 and Section 7 |
| Predicting and analysing social impacts | |
| 14. Does the SIA Report impartially focus on the most material social impacts at all stages of the project life cycle, without any omissions or misrepresentations? | Section 6 and Section 7 |
| 15. Does the SIA Report identify the matters to which the precautionary principle could or should be reasonably applied? | Section 6 and Section 7 |

| Review questions (appendix C of the 2020 draft Guideline) | Location in this report (if applicable) |
|---|--|
| 16. Does the SIA Report analyse the distribution of both positive and negative social impacts, and the equity of this distribution? | Section 6 and Section 7 |
| 17. Does the SIA Report identify its assumptions, and include sensitivity analysis and alternative scenarios (including 'worst-case' and 'no project' scenarios where relevant)? | Section 6 and Section 7 |
| Evaluating significance | |
| 18. Do the evaluations of significance of social impacts impartially represent how people in each identified social group can expect to experience the project, including any cumulative effects? | Section 6 and Section 7 |
| 19. Are the evaluations of significance disaggregated to consider the potentially different experiences for different people or groups, especially vulnerable groups? | Section 6 and Section 7 |
| Responses, monitoring and management | |
| 20. Does the SIA Report propose responses (i.e., mitigations and enhancements) that are tangible, deliverable by the proponent, likely to be durably effective, and directly related to the respective impact(s)? | Section 7 |
| 21. How can people be confident that social impacts will be monitored and reported in ways that are reliable, effective, and trustworthy? | Section 8 |
| 22. How will the proponent adaptively manage social impacts and respond to unanticipated events, breaches, grievances, and non-compliance? | Section 7 and Section 8 |

ATTACHMENT 2 – SCOPING TOOL

Attachment Table 2-1

| Social impact assessment (SIA) scoping worksheet for: | | | 0 | | | | Date: | | | | |
|--|----------------------------------|--------------------------------|---|--|---|--|--|---|-----------------|-----------------|-----------------|
| Scoping results from EIS Worksheet | | | Is there a social impact? | | | | What information will be required to assess the social impact? | | | | |
| Social and environmental matters | | Outline of impact | Is a material effect on the matter expected? | Is there community or other stakeholder concerns regarding the impact or activity? | Will regard to the matter expected to be impacted, will there be a social impact? | Are impacts on the matter expected to require a non-SIA specialist study? | Will the non-SIA specialist study address the social impact? | Level of assessment for the social impact in the SIA. | | | |
| Click on a matter below for brief description, or refer to full glossary | | (Auto fill from EIS worksheet) | (Auto fill from EIS worksheet) | (Auto fill from EIS worksheet) | Select this cell for brief description, or click link above for further detail | (Auto fill from EIS worksheet, then manually enter non-SIA report type) | Click on link above for further detail on potential classifications | Click on link above for further detail on potential classifications | | | |
| | | | | | Yes/No (Select from list) | If yes, outline the social impact (Manual entry, if not already covered in column D) If no, outline why (Manual entry) | (Select from list) | (Auto fill) | | | |
| What does the proposal mean for people? | AMENITY | acoustic | extension area would result in extraction moving closer to some rural residences east and north of the quarry | Yes | Yes | Yes | Extraction moving closer to some residents | Vibration Management Impa | Yes - fully | Desktop SIA | |
| | | visual | increased visibility of new and existing extraction faces | Yes | Yes | Yes | increased visibility of new and existing extraction faces | Yes - Seen Area Analysis | Yes - in part | Standard SIA | |
| | | odour | | | | No | No | | | | No SIA required |
| | | microclimate | | | | No | No | | | | No SIA required |
| | ACCESS | vibration | extension area would result in extraction moving closer to some rural residences east and north of the quarry | Yes | Yes | Yes | extension area would result in extraction moving closer to some rural residences east and north of the quarry | Vibration Management Impa | Yes - fully | Desktop SIA | |
| | | access to property | | | | No | | | | | No SIA required |
| | | utilities | | | | No | | | | | No SIA required |
| | | road and rail network | | | | No | | | | | No SIA required |
| | BUILT ENVIRONMENT | offsite parking | | | | No | | | | | No SIA required |
| | | other - please specify | | | | No | | | | | No SIA required |
| | | public domain | | | | No | | | | | No SIA required |
| | | public infrastructure | | | | No | | | | | No SIA required |
| | HERITAGE | other built assets | | | | No | | | | | No SIA required |
| | | Private Properties | moving closer to private properties | yes | yes | Yes | closer to properties | agement Impact Assessment, i | Yes - in part | Standard SIA | |
| | | natural | | | | no | | | | | No SIA required |
| | | cultural | | | | no | | | | | No SIA required |
| | COMMUNITY | Aboriginal cultural | 0 | Yes | No | Yes | increase disturbance footprint into an area that has not previously been assessed for Aboriginal cultural heritage | original Cultural Heritage Asse | Yes - fully | Desktop SIA | |
| | | built | historic "Belmont" property to be removed | yes | yes | Yes | historic "Belmont" property to be removed and salvaged dry stone wall to be relocated | - How to Prepare Archival Rev | Yes - in part | Standard SIA | |
| | | other - please specify | | | | no | | | | | No SIA required |
| | | health | | | | no | | | | | No SIA required |
| ECONOMIC | carlife | | | | No | | | | | No SIA required | |
| | services and facilities | | | | No | | | | | No SIA required | |
| | housing | | | | No | | | | | No SIA required | |
| | cohesion, capital and resilience | | | | No | | | | | No SIA required | |
| WATER | other - please specify | | | | no | | | | | No SIA required | |
| | natural resource use | | | | No | | | | | No SIA required | |
| | livelihood | | | | Yes | No | | | | No SIA required | |
| | business opportunity | | | | no | no | | | | No SIA required | |
| AIR | other - please specify | | | | Yes | No | | | | No SIA required | |
| | particulate matter | 0 | Yes | Yes | Yes | | Yes - Air Quality Impact Assessm | Yes - fully | Desktop SIA | | |
| | gases | | | | No | No | | | | No SIA required | |
| | atmospheric emissions | | | | No | | | | | No SIA required | |
| BIODIVERSITY | other - please specify | | | | No | | | | | No SIA required | |
| | native vegetation | 0 | Yes | No | Yes | | Yes - Biodiversity Assessment Req | Yes - fully | Desktop SIA | | |
| | native fauna | 0 | Yes | No | no | | No | | | No SIA required | |
| | other - please specify | | | | No | | | | | No SIA required | |
| LAND | soil and/or structure | | | | No | | | | | No SIA required | |
| | soil chemistry | | | | No | | | | | No SIA required | |
| | capability | 0 | Yes | No | No | | No | | | No SIA required | |
| | topography | 0 | Yes | No | No | | No | | | No SIA required | |
| WATER | other - please specify | | | | No | | | | | No SIA required | |
| | water quality | | | | no | No | | | | No SIA required | |
| | water availability | 0 | Yes | No | Yes | | Yes - Groundwater Assessment | Yes - fully | Desktop SIA | | |
| | hydrological flows | 0 | Yes | No | no | | No | | | No SIA required | |
| other - please specify | | | | No | | | | | No SIA required | | |

ATTACHMENT 3 - DPIE EVALUATION TOOLS

Attachment Table 3-1 Defining likelihood levels of social impacts (the Guideline (2021))

| Likelihood level | Meaning |
|-----------------------|--|
| Almost certain | Definite or almost definitely expected |
| Likely | High probability |
| Possible | Medium probability |
| Unlikely | Low probability |
| Very unlikely | Improbable or remote probability |

Attachment Table 3-2 Dimensions of social impact magnitude (the Guideline (2021))

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

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Attachment Table 3-3 Defining magnitude levels for social impacts (the Guideline (2021))

| Magnitude level | Meaning |
|-------------------------|---|
| Transformational | Substantial change experienced in community wellbeing, livelihood, amenity, infrastructure, services, health, and/or heritage values; permanent displacement or addition of at least 20% of a community |
| Major | Substantial deterioration/improvement to something that people value highly, either lasting for an indefinite time, or affecting many people in a widespread area |
| Moderate | Noticeable deterioration/improvement to something that people value highly, either lasting for an extensive time, or affecting a group of people |
| Minor | Mild deterioration/improvement, for a reasonably short time, for a small number of people who are generally adaptable and not vulnerable |
| Minimal | No noticeable change experienced by people in the locality |

Attachment Table 3-4 Social impact significance matrix (Guideline (2021))

| Likelihood | Magnitude level | | | | |
|----------------|-----------------|--------|----------|-----------|------------------|
| | Minimal | Minor | Moderate | Major | Transformational |
| Almost certain | Low | Medium | High | Very High | Very High |
| Likely | Low | Medium | High | High | Very High |
| Possible | Low | Medium | Medium | High | High |
| Unlikely | Low | Low | Medium | Medium | High |
| Very unlikely | Low | Low | Low | Medium | Medium |

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