Appendix 14

Social Impact Assessment

prepared by

Element Environmental Pty Ltd

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Copi Mineral Sands Project | State Significant Development

SOCIAL IMPACT ASSESSMENT

Prepared for RWC | 14 March 2024

Copi Mineral Sands Project

STATE SIGNIFICANT DEVELOPMENT | SOCIAL IMPACT ASSESSMENT

Prepared for RWC
14 March 2024

PR319

	Prepared by	Reviewed by
Name	Alex Belerique	Jamie Seaton
Company	Element Environment	Element Environment
Position	SIA Consultant	Principal, Engagement and Social
Project Role	Lead Author	Technical Reviewer
Signature		
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CHAPTER 1

INTRODUCTION

1 INTRODUCTION

1.1 Purpose of this report

This Social Impact Assessment (SIA) has been prepared as part of a State Significant Development (SSD) application under Part 4, Division 4.7 of the *NSW Environmental Planning and Assessment Act (1979)* (EP&A Act).

This report has been prepared to address the Secretary's environmental assessment requirements (SEARs) (SSD-41294067) for the Copi Sands Mineral Project (the Project), issued by NSW Department of Planning Housing and Infrastructure (DPHI) on 18 December 2023. The SEARs nominated social impacts as being among the key issues that must be addressed via a SIA, prepared in accordance with the DPHIs *Social Impact Assessment Guideline For State Significant Projects* (NSW Department of Planning, Housing and Infrastructure, 2023), hereafter referred to as the 'Guideline'.

1.2 Objective of the social impact assessment

The SIA objectives are consistent with the Guideline, which outlines some mandatory requirements to be met by SIA practitioners in NSW. The Guideline provides a framework for identifying, evaluating and responding to social impacts. It provides guidance for stakeholder and community engagement, data collection, project refinement, and the monitoring and management of social impacts.

This SIA aims to:

- Identify the social locality for the Project;
- Outline the SIA methodology applied for the study;
- Describe the stakeholder and community engagement activities undertaken during the SIA, and the outcomes of these activities;
- Outline the existing social baseline for the Project; and
- Identify, evaluate and respond to the predicted social impacts of the Project.

1.3 Project Description

1.3.1 Project Overview

Table 1-1 contains a Project overview comprising a summary of each Project element.

Table 1-1 – Project overview

Project Element	Summary of the Project
Mining Method	Dredge mining from an Extraction Area approximately 17km long and up to approximately 3.3km wide. Mining would commence with a starter pond at the at the southwestern extent of the deposit. The starter pond would be extracted using conventional free dig, load and haul mining techniques. Extracted overburden, namely material located above the water table with no heavy mineral, would be used to construct infrastructure within the Mine Site or stockpiled for later use during rehabilitation operations. Following establishment of the starter pond, the dredges would be installed, followed by the floating Wet Concentration Plant. Interburden, namely material located below the water table with uneconomic heavy mineral, would be extracted using floating dredges. Interburden would

Project Element	Summary of the Project
	initially be transferred to the Off Path Storage Facility. Once the dredge pond has achieved its full operational size, extracted interburden would be used to backfill completed sections of the Extraction Area. Ore, namely material with sufficient heavy mineral to justify processing, would be extracted using a floating dredge. The ore would be transferred to the floating Wet Concentration Plant for processing. Reject from the Wet Concentration Plant would initially be transferred to the Off Path Storage Facility. Once the dredge pond has achieved its full operational size, reject would be combined with the extracted interburden to backfill completed sections of the Extraction Area. The placed reject and interburden would be covered by overburden and soil before being rehabilitated.
Mineral Resource	Heavy mineral sand deposit approximately 23km long and up to 5km wide. Indicated and Inferred JORC-compliant resource (September 2023) – 2.54Mt at 1.2% heavy mineral comprising ilmenite, leucoxene, rutile, zircon, monazite and xenotime.
Annual Production	Ore up to approximately 27.7Mtpa Interburden up to approximately 48.0Mtpa Overburden up to approximately 28.2Mtpa
Mine Life	Project life approximately 26 years, comprising Construction approximately 2 years Mining approximately 17 years Post-mining Rehabilitation approximately 7 years post mining Note: Construction and mining operations would be partially undertaken concurrently
Total Resource Recovered	Ore mined up to 406.4Mt
Disturbance Area	Mine Site approximately 5,622ha Rail Facility approximately 3.0ha (all existing disturbance, nil additional)
Processing	Processing operations would involve the following. ▪ Wet screening and gravity separation of up to approximately 27.7Mtpa of ore within the Wet Concentration Plant. ▪ Dewatering and transfer of the Heavy Mineral Concentrate to the Rare Earth Concentrate Plant. ▪ Washing, drying and separation within the Rare Earth Concentrate Plant to produce up to 511,000tpa of the following. - A primary and secondary ilmenite product. - A monazite product. - A non-magnetic concentrate.
Management of Mining Waste	▪ Overburden - Extracted using dry mining techniques. - Initially used to construct infrastructure within the Mine Site or stockpiled for later use, after which it would be transferred directly to completed sections of the Extraction Area to reestablish the final landform. ▪ Oversize - Screened and transferred directly to completed sections of the Extraction Area. ▪ Interburden and Wet Concentration Plant reject and slimes - Initially transferred to the Off Path Storage Facility. Once the dredge pond has achieved its full operational size, reject would be combined with the extracted interburden to backfill completed sections of the Extraction Area. ▪ Rare Earth Concentrate Plant reject. - Placed within completed sections of the Extraction Area. ▪ General wastes and recyclables - Collected from site and transferred to a licenced waste management facility.
Transportation Operations	▪ Public road closure

Project Element	Summary of the Project
	- Nulla Road between the “Huntingfield” homestead and the “Wenba” Station access road would be closed indicatively during Years 11, 12 and 13 when the Project would mine through the road. The road would be reinstated in a realigned location as soon as practicable once mining has progressed through that section of the road. ▪ Product/concentrate transportation - Route via Transport Route North to the Rail Facility - Vehicle type AB-triple (Type 1) or AB-quad (Type 2) road trains - Material classification (under Australian Code for the Transport of Dangerous Goods by Road & Rail) ▪ Ilmenite products and non-magnetic concentrate Not classified ▪ Monazite product Class 7 (Radioactive Material) - Traffic level ▪ AB-triple (Type 1) road trains up to 16 laden movements per day ▪ AB-quad (Type 2) road trains up to 12 laden movements per day - Onward transportation from Broken Hill (under separate approval) ▪ Ilmenite product and non-magnetic concentrate by rail ▪ Monazite product by road or rail - Note: AB-quad road trains would be used only once the required road permits have been obtained ▪ All other deliveries/consumables - Transport Route South route approximately 90% of movements - Transportation Route North route approximately 10% of movements
General Infrastructure	On-site infrastructure not addressed above would include the following. ▪ Mine Camp associated infrastructure for up to 220 personnel. ▪ A 66kV transmission line from the 220kV Buronga to Broken Hill transmission line. The transmission line would be located adjacent to the Mine Site Access Road. ▪ Solar Farm and associated infrastructure. ▪ A power station comprising modular, silenced, diesel generators and associated infrastructure for use during construction and for emergency power requirement during operations. ▪ Offices and Administration Area. ▪ Workshops, Stores and Laydown Areas.
Power	▪ Power for the Project would be provided by a combination of: - diesel generated power during construction operations; - solar power from an approximately 35MW solar farm (if required); and - mains power sourced via the above 66kV powerline. ▪ Power distribution infrastructure, including substations and overhead, buried and floating transmissions lines. ▪ A minimum 30% of the Project’s power would be sourced from renewable sources, including the onsite solar farm and/or externally contracted and certified renewable sources.
Water Management	▪ Groundwater within the target Loxton Parilla Sands is highly saline, with limited to no beneficial use. ▪ Dredging operations would be reliant on groundwater inflows to the Extraction Area to form the pond upon which the dredges and Wet Concentration Plant would be floated. ▪ Production bores would be installed within the Loxton-Parilla Sands to provide water for initial construction operations and feed for one or more reverse osmosis plants. - Treated water would be used for camp amenities, concentrate washing, dust suppression (in conjunction with polymer-based dust suppressants) and other purposes as required. - Brine from the reverse osmosis plant would initially be placed within a pond within the Extraction Area footprint, after which it would be transferred to the dredge pond.

Project Element	Summary of the Project
	▪ Production bores and the Water Storage Dam would be used to manage the water level within the Starter Pond to allow construction and floating of the dredges and Wet Concentration Plant. ▪ Sediment laden (dirty) water would be retained on site and used for mining-related purposes. ▪ Water from undisturbed sections of the Mine Site (clean water) would be prevented from entering disturbed sections of the Mine Site. Where clean water accumulates adjacent to the clean water exclusion bunds, that water would be used for mining-related purposes.
Workforce	▪ Construction up to approximately 480 persons ▪ Operations up to approximately 240 persons ▪ Rehabilitation up to approximately 40 persons - Note: Work and fatigue management rosters would result in not all personnel being on site at the same time
Final Landform	▪ All infrastructure not required for the final land use removed or reduced in size. ▪ A backfilled, shaped and revegetated Extraction Area with no final void. ▪ Nulla Road reinstated. ▪ Upgraded public infrastructure retained for public use.
Final Land Use	▪ Native ecosystem, with active investigation of alternative post-mining land uses, including renewable energy generation.
Rehabilitation	▪ Rehabilitation would occur progressively throughout the life of the Project, with the Extraction Area progressively backfilled, shaped and rehabilitated.

Hours of Operation

Activity	Proposed Days of Operation	Proposed Hours of Operation
Land preparation	7 days per week	7:00am to 6:00pm
Construction operations		
Road construction within Broken Hill LGA	7 days per week	7:00am to 10:00pm
All other construction	7 days per week	24 hours per day
Mining operations	7 days per week	24 hours per day
Processing operations	7 days per week	24 hours per day
Transportation operations		
Mine product transportation within Broken Hill LGA	7 days per week	7:00am to 10:00pm
All other transportation	7 days per week	24 hours per day
Maintenance operations	7 days per week	24 hours per day
Rehabilitation operations	7 days per week	7:00am to 10:00pm

1.4 Legislative and social policy context

1.4.1 Legislation

The EP&A Act sets the legislative context for this SIA. 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 Guideline) are issued under the provisions of the EP&A Act and set legislative requirements that this SIA must accommodate.

1.4.2 State Guidelines

Social impact assessment guideline

As described above, the Guideline details how social impacts of state significant projects should be identified, evaluated, responded to and, if appropriate, monitored and managed in accordance with the EP&A Act.

The Guideline outlines some mandatory requirements to be met by SIA practitioners in NSW. It provides:

- A rigorous framework to identify, evaluate and respond to social impacts;
- Guidance on meaningful, respectful and effective stakeholder and community;
- Engagement on social impacts from project planning to post-approval;
- The means to obtain reliable, relevant information, insights and analysis for decision-makers; and
- Advice on how the SIA can inform ongoing engagement, project refinement, monitoring, and adaptive management.

Community and stakeholder engagement guidelines

The *Undertaking Engagement Guidelines for State Significant Projects* (Department of Planning, Housing and Infrastructure, 2022) set out the requirements for effective engagement for state significant projects in NSW. The guidelines outline the actions that DPHI will take in relation to such projects, they identify opportunities for the community to participate in, and they set out requirements for proponents.

These guideline provides guidance to proponents on:

- Planning their approach to engagement;
- Undertaking engagement to inform the development of the proposal and contribute to better planning outcomes; and
- Reporting back and demonstrating how engagement has shaped the project being assessed.

The Project stakeholder and community engagement activities were undertaken in accordance with the guidelines. See **Chapter 3** for the details.

1.4.3 Regional and local community plans and strategies

Regional plans which reflect the aspirations of the community have been developed by the NSW Government and local authority associated with the Project. The regional and local plans outlined below are related to 'place-making' and improving the socio-economic circumstances of the respective populations. They each utilised input from a range of stakeholders and are, therefore, relevant to this SIA.

Far West Regional Plan 2036

The Far West Regional Plan 2036 (FWR Plan) (NSW Government, 2017) is the NSW government's 20-year blueprint for the future of Western NSW. It includes the local government areas (LGAs) of Broken Hill and Wentworth Shire.

The aim is to create a diverse economy that is underpinned by infrastructure and supports the natural environment and resilient communities. The plan aims to achieve this vision by pursuing the following three goals:

1. A diverse economy with efficient transport and infrastructure networks;
2. Exceptional semi-arid rangelands traversed by the Barwon-Darling River; and
3. Strong and connected communities.

The region has a historic connection with mining, which continues to play a defining role for the far west. In particular, the Broken Hill City Council (BHC) is recognised for the primary economic driver for silver, lead, and zinc. The FWR Plan also notes that Broken Hill has further opportunity for mining iron ore, copper, gold, cobalt, and magnetite.

Direction 6 of FWR plan seeks to Unlock Economic potential through improved freight transport infrastructure.

In Direction 6, the NSW Government demonstrates its commitment to sustained investment in freight, priority road and rail infrastructure, and airline services, recognising their pivotal role in the regional economy.

If approved, the Project would enhance various public roads, including Anabranch Mail Road and key intersections like Patton and Comstock Streets, Comstock and Eyre Streets, and Holten Drive and the Rail Facility Access Road. This initiative aligns with Direction 6, emphasising the continuous investment in maintaining and upgrading transport routes to foster future economic growth in the Far West region. Therefore, the Project could be considered consistent with the directions and goals set out in the FWR Plan.

Broken Hill Strategic Plan - Your Broken Hill 2040

The *Community Strategic Plan (CSP)* (Broken Hill City Council, 2022) identifies the long-term aspirations for the Broken Hill LGA community and is part of Broken Hill Council's (BHCs) Strategic Planning Framework, which also includes their Community Engagement Strategy, Delivery Program, Annual Operational Plan and Resource Strategy. It is built on social justice principles of equity, access, participation, and rights.

The CSP is a long-term strategy spanning 18 years (2022-2040), identifying the outcomes and long-term strategic responses required to meet the following identified values of the Broken Hill LGA community:

- Our Community – We value lifestyle and wellbeing; a place that encourages safe, active, cultural and social opportunities;
- Our Economy – We value a diverse economy which is resilient and adaptable to change, making the best use of the unique advantages of our remoteness and lifestyle;

- Our Environment – We value our unique landscape; we are committed to conservation and preservation of the natural environment and greater reduction of the human impact to ensure a sustainable and healthy community; and
- Our Leadership – We value collaboration and working together for the greater good – Broken Hill community continues shared responsibility for good governance.

The CSP addresses significant community issues, challenges, and outcomes by adopting the four strategies outlined below.

1. Community strategies:

    a. Foster strong connections and spirit.
    b. Ensure safety, resilience, and sustainable infrastructure.
    c. Promote inclusivity, cultural preservation, and community health.

2. Economic strategies:

    a. Foster strong connections and spirit.
    b. Ensure safety, resilience, and sustainable infrastructure.
    c. Promote inclusivity, cultural preservation, and community health.

3. Environmental strategies:

    a. Minimise the city's carbon footprint and promote renewable resources.
    b. Communicate and uphold the fragility of natural environments.
    c. Encourage climate-conscious planning and environmentally sustainable practices.

4. Leadership strategies:

    a. Build strong relationships, share responsibilities, and consider sustainability.
    b. Support leaders, enhance capability, and increase cultural awareness.
    c. Develop a partnership forum, celebrate success, and strengthen relationships.

The community was extensively engaged by BHC during the development of the CSP. It is, therefore, an important input to the SIA and a reliable source of secondary information which will be drawn upon for this study.

The Project would potentially alleviate the key issues and challenges of the community through contributing towards the community, economic and environmental strategies.

Broken Hill Local Strategic Planning Statement

The Broken Hill Local Strategic Planning Statement (LSPS) (Broken Hill City Council, 2020) incorporates various planning frameworks, such as the Far West Regional Plan 2036, Far West Regional Economic Development Strategy 2018-2022, Broken Hill Community Strategic Plan 2033, Local Environmental Plan 2013, and Development Control Plan 2016. The document serves as a guide, bridging overarching visions and priorities into actionable land-use plans for the Local Government Area.

The identified priorities within the Broken Hill LSPS form a strategic roadmap, emphasising alignment with regional strategies in pivotal sectors. The recommendations of the Far West Regional Economic Development Strategy, Far West Regional Plan and Broken Hill Community Strategic Plan, include:

- A focus on health, education and training, mining, transport and freight logistics, industry and agribusinesses, renewable energy, tourism, culture and heritage, water security and other important infrastructure;

- Establishment of new mining operations, industries, and value-add facilities in and around Broken Hill, now that connection to the NBN is scheduled for completion and the Murray River water supply has been secured;
- Expansion of regional tourism and further refinement of visitor experiences at Broken Hill City;
- Further planning and development of the Broken Hill Central Business District, Broken Hill Airport, industrial precincts, major parklands and housing options to underpin Broken Hill's important service centre and tourist destination role;
- Building resilience to economic, social, and climatic changes, through training, new information technology and increased levels of connectivity, new business models and products, entrepreneurism and self-employment; and
- Review of local planning policies to ensure they are assisting all of the above.

The Project would integrate with local strategy, providing support for economic growth. Exclusively in relation to the proposed road upgrade in the Broken Hill LGA, the Project aligns with the LSPS by contributing to job creation and infrastructure enhancement.

Wentworth Community Strategic Plan

The Wentworth Shire Community Strategic Plan (WCSP) (Wentworth Shire Council, 2022) for 2022-2032 outlines key priorities and aspirations to guide the region's development. The plan underscores the significance of fostering a robust and sustainable local economy, promoting community engagement, ensuring environmental sustainability, developing essential infrastructure, and maintaining strong civic leadership. These priorities are aimed at creating a flourishing community with a high quality of life, economic opportunities, and a preserved natural environment.

The WCSP aligns with the economic, environmental, and social dimensions of the Project. Firstly, through emphasis on economic development, ranging from job creation to stimulating local businesses. Moreover, the Project has an opportunity to support the transparent and community-centric decision-making priority outlined in the WCSP, particularly during the planning phase. The Project will focus on environmental sustainability, specifically to the responsible execution of a mining venture, ensuring that it adheres to local policies and safeguards biodiversity in line with the WCSP. Additionally, the Project has committed to investing in several local roads along the transport route, consistent with WCSP's recognition of infrastructure as a catalyst for economic development.

By adhering to the WCSP's principles, the Project if approved would contribute to the region's economic landscape, influencing its growth while aligning with the community's broader goals and priorities.

Wentworth Local Strategic Planning Statement

Wentworth Shire Council is actively shaping a sustainable future through strategic planning and collaboration. The Wentworth Local Strategic Planning Statement (WLSPS) (Wentworth Shire Council, 2020) emphases agriculture, tourism, resource management, Aboriginal economic empowerment, and infrastructure.

The statement emphasises the importance of:

1. Engagement and Collaboration
    a. Proactively collaborate with Mildura Rural City Council on local planning policies and strategies.
2. Development and Infrastructure

a. Review and update Wentworth LEP 2011 for strategic alignment.
b. Develop supplementary guidance for non-agricultural land use.
c. Advocate for funding to upgrade roads and enhance accessibility.

3. Economic and Cultural Inclusivity

   a. Support Aboriginal economic self-determination through consultation and mapping.
   b. Foster sustainable settlements with specific strategies for different townships.

4. Sustainability and Environmental Protection

   a. Develop plans for sustainable water and wastewater management.
   b. Undertake projects for houseboat infrastructure and integrated water management.
   c. Finalise strategies for natural hazard management and climate change risks.

5. Heritage Preservation

   a. Consult with Local Aboriginal Land Council for heritage preservation.
   b. Update heritage studies and conservation plans.

The Proponent has engaged with Council (Item 1 above) and consulted the Local Aboriginal Land Council (Item 5) during the Project development. If the Project proceeds and this engagement and consultation continues, then the Project would align with the WLSPS.

1.5 Structure of this report

This report is structured in accordance with the Guideline.

The social locality of the study is established in **Chapter 2**, then the method for scoping and preparing the SIA is described (**Chapter 3**).

The SIA stakeholder and community engagement approach is described in **Chapter 4** and the existing social baseline associated with the Project is provided in **Chapter 5**.

An assessment of the identified social impacts is made in **Chapter 6**, and finally, the suggested social impact enhancement measures, mitigation measures and residual impacts are described in **Chapter 7**. **Chapter 7** also contains the SIA conclusion.

The structure of this report comprises the 'review questions' contained in Appendix C of the Guideline. The review questions are a checklist for the author to confirm this report is compliant with the Guideline in terms of undertaking the SIA and preparing this report. A compliance matrix is presented in Table 1-2 to identify where the review questions are addressed in this report.

Table 1-2 – Review questions

Review questions		Location in this report
General		
1	Does the lead author meet the qualification and experience requirements?	Certification page
2	Has the lead author provided a signed declaration?	Certification page
3	Would a reasonable person judge the SIA report to be impartial, transparent and suitably rigorous given the nature of the project?	Entire report
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 4.1

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 2.3
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?	Chapter 5 Chapter 6
7	Does the social baseline study include appropriate justification for each element, and provide evidence that the elements reflect both relevant literature and the diversity of views and likely experiences?	Chapter 5
8	Does the social baseline study demonstrate social-science research methods and explain any significant methodological or data limitations?	Chapter 3
Identification and description of social impacts		
9	Does the SIA report adequately describe likely social impacts from the perspectives of how people may experience them, and explain the research used to identify them? When undertaken as a part of SIA scoping and initial assessment, has the plan for the SIA report been detailed?	Chapter 6
10	Does the SIA report apply the precautionary principle to identifying social impacts, and consider how they may be experienced differently by different people and groups?	Section 6.1
11	Does the SIA report describe how the preliminary analysis influenced project design and EIS engagement strategy?	Section 6.1
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 3.4 Section 3.6
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?	Chapter 6 Chapter 7
Predicting and analysing social impacts		
14	Does the SIA report impartially focus on the most important social impacts to people at all stages of the project, without any omissions or misrepresentations?	Entire report
15	Does the SIA report analyse the distribution of both positive and negative social impacts, and identify who will benefit and who will lose from the project?	Chapter 6 Table 7.3
16	Does the SIA report identify its assumptions, and include sensitivity analysis and alternative scenarios? (including ‘worst-case’ and ‘no project’ scenarios where relevant)	Section 7.5
Evaluating significance		
17	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?	Chapter 6
18	Are the evaluations of significance disaggregated to consider the likely different experiences for different people or groups, especially vulnerable groups?	Chapter 6
19	Does the SIA report propose responses that are tangible, deliverable, likely to be durably effective, directly related to the respective impact(s) and adequately delegated and resourced?	Chapter 7
20	Does the SIA report demonstrate how people can be confident that social impacts will be monitored and reported in ways that are reliable, effective and trustworthy?	Section 7.4
21	Does the SIA report demonstrate how the proponent will adaptively manage social impacts and respond to	Section 7.4

	unanticipated events, breaches, grievances and non-compliance?

CHAPTER 2
SOCIAL LOCALITY

2 SOCIAL LOCALITY

2.1 Mining in Western NSW

The Project is located in the Wentworth LGA within the Murray-Darling Basin. Other mineral sands mining operations occurring in the Murray-Darling Basin include the Snapper Mineral Sands Mine, Gingko Mineral Sands Mine, Atlas Campaspe Mineral Sands Project, and the Balranald Mineral Sands Project. As a result, residents of the Wentworth LGA are familiar with sand mining operations and the benefits and challenges associated with those operations. At the 2021 census, mining was the third largest employer within the LGA, employing 234 persons. Furthermore, it is expected that operations at the Tronox owned and operated Snapper and Gingko Mines will have ceased by 2025, when the Project is expected to commence operations.

Broken Hill has a long and rich history of mining with the discovery of 'Broken Hill' on Mount Gipps Station by Charles Rasp in 1883. Broken Hill has since been a rich source of silver, lead, and zinc with mining operations undertaken continuously since 1883. Mines operating in and around Broken Hill today include the CBH owned Rasp Mine and Perilya Broken Hill Mine which operates Potosi, Broken Hill North Mine and Broken Hill Southern Operations. Broken Hill is also at the intersection of the main east–west and north-south road transportation routes in western NSW, as well as being a major rail facility. As a result, residents of the Broken Hill LGA are very familiar with mining and transportation operations and the benefits and challenges associated with those operations. At the 2021 census, mining was the 2nd largest employer within the LGA, employing 789 persons.

Significant exploration activities are currently occurring around Broken Hill and western NSW. Impact Minerals, in partner with IGO, have identified ore bodies containing platinum, palladium, gold, copper, nickel, and silver and Cobalt Blue's Project has been granted Major Projects status by the Federal Government. In addition, the Euston Mineral Sands Project, proposed by Iluka Resources Ltd, located approximately 25km east of Mildura and 50km east of Wentworth has recently been declared to be a State Significant Development, with SEARs issued on 23 February 2023.

It has been reported that the drive for critical minerals in Australia places the Far West Region of NSW at the forefront of Australia's opportunity to contribute to current global demand.

2.2 Regional Context

The Project is located 75km northwest of Wentworth in a remote section of the Far West Region of NSW within the Wentworth Local Government Area (LGA), as shown in Figure 2.1. The surrounding area is sparsely populated, with widely spaced rural residences, some occupied intermittently, others permanently. The area surrounding the Mine Site is characterised by flat to very gently undulating landforms, low density grazing enterprises and unsealed roads.

The Rail Facility is located on the eastern edge of the Broken Hill urban area, within the Broken Hill LGA (refer Figure 2.1). The surrounding area illustrated in Figure 2.2 is characterised by mining operations to the east (Perilya's Broken Hill North Mine) and north and west (CBH's Rasp Mine) and a quarrying operation to the west and south (Mawson's Broken Hill Quarry). The transportation route (refer Figure 2.1) comprises an unsealed Site Access Road and an upgraded Anabranch Mail Road that together would link the Mine Site to the Silver City Highway, a distance of approximately 33.1km. The Silver City Highway, a sealed State Road that links Wentworth in the south with Broken Hill in the north, is the principal north-south transport link in western NSW.

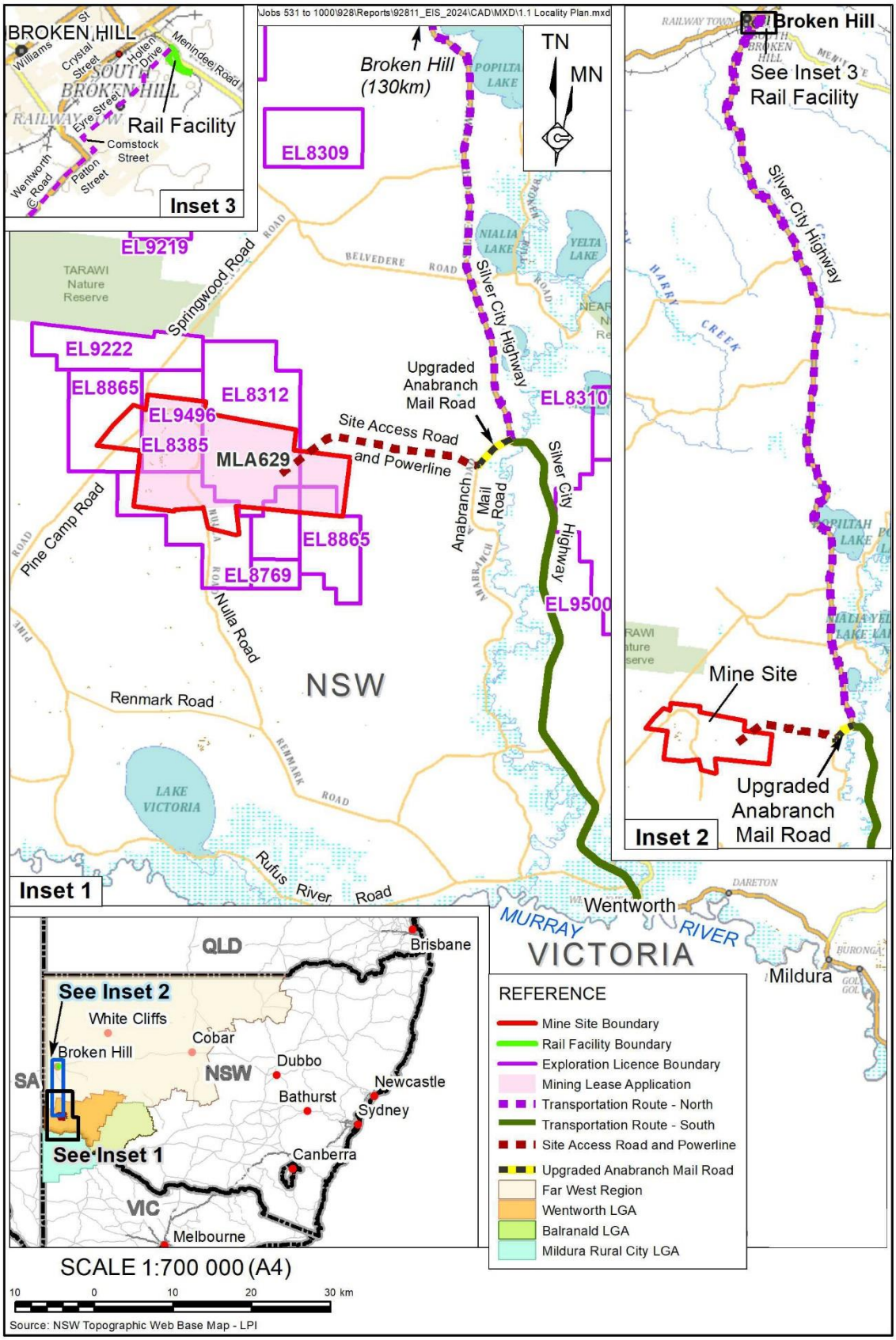


Figure 2.1 – Locality plan

Figure 2.2 – Rail facility land ownership

The Mine Site is located within pastural and cropping lands, allocated under the Western Land Leases scheme and granted in accordance with the conditions of the Western Lands Act 1901. Most leases are used for low intensity grazing. The Tarawi Nature Reserve is located approximately 7km north of the Mine Site. Figure 2.3 illustrates landownership and residence locations surrounding the Mine Site and along the proposed Site Access Road and Anabranch Mail Road.

Land ownership along the transportation route is similarly characterised by large agricultural land holdings with widely spaced rural residences. Within the Broken Hill urban area, land tenure is residential and commercial.

The Rail Facility is primarily located on land owned by the State Rail Authority of NSW, with small sections of the Facility, namely existing unsealed access roads, located on land within the Willyama Common, managed by Broken Hill City Council.

Land uses surrounding the Mine Site are restricted to low density grazing of sheep and goats, with some seasonal cropping, predominantly of grain crops such as wheat and barley. Tarawi Nature Reserve, a protected area managed by NSW National Parks and Wildlife Service is located to the north of the Mine Site and astride the Transportation Route. This reserve is for wildlife conservation and receives limited visitation for tourism.

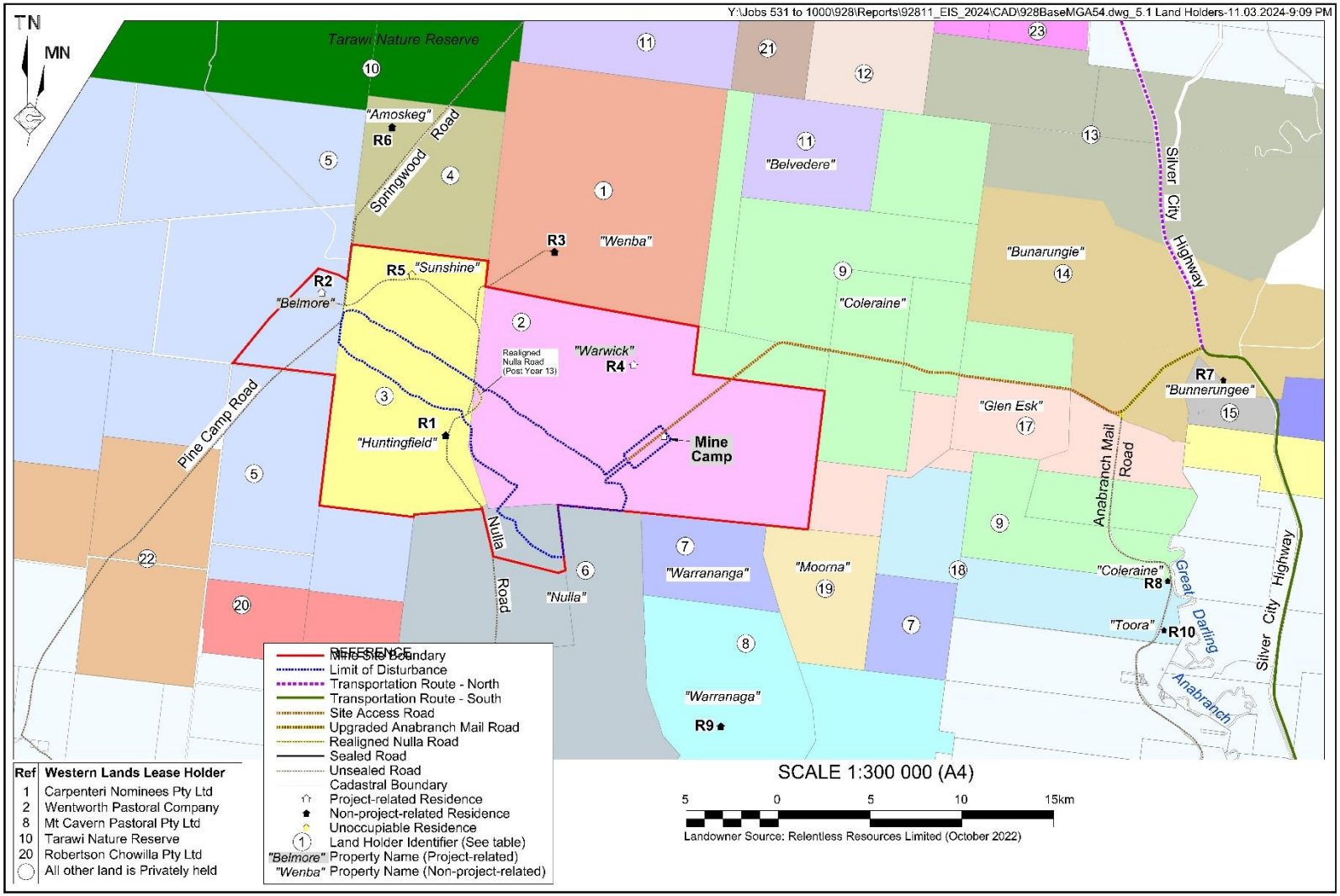


Figure 2.3 – Landholders surrounding the Mine Site

2.3 Surrounding land use

Land uses within the Broken Hill urban area is typically residential and commercial, with mining operations and quarrying as described above.

The natural environment within and surrounding the Mine Site is dominated by the following features:

- Seasonal grass plains dominated by Mitchel Grass and Bladder Saltbush and subject to sustained grazing pressure by managed and unmanaged grazing of domestic, feral and native fauna.
- Two very large salt pans largely devoid of vegetation with intersecting low dune lunettes, featuring sparce salt tolerant vegetation.
- Larger dunal features, rising no more than 40m from the lowest point, with a sparce tree growth of Black Box, White Cyprus, Mulga, Bladder Salt bush and Black Oak (Belah).

The built environment within and surrounding the Mine Site is restricted to the unsealed Nulla, Pine Camp, Springwood and Anabranch Mail Roads, fence lines, water lines and widely spaced dams and farm buildings (homesteads, shearing sheds, machinery sheds) associated with Huntingfield, Belmore, Warwick, Coleraine, Bunnerungie, Nulla and surrounding stations.

The natural environment adjacent to the transportation route outside of the Broken Hill urban area is similarly dominated by arid rangelands and salt pans. The built environment adjacent to the transportation route is dominated by the Silver City Highway, adjacent linear infrastructure, including the Wentworth to Broken Hill transmission line and water pipeline, and isolated rural infrastructure, including homesteads and other buildings.

The natural environment adjacent to the Rail Facility and transportation route within the Broken Hill urban area has been extensively modified by urban development, mining and quarrying. As shown in Figure 2.2, The built environment comprises various commercial and residential buildings, mining (Perilya's Southern Operations and North Mine and CBH's Rasp Mine) and quarrying (Mawson's Broken Hill Quarry) operations, transportation infrastructure (roads and rail) and a silo and rail siding within the Rail Facility.

2.4 The Project's nominated social locality

The nominated social locality for the Project (Figure 2.4) was selected by considering the Project features and their potential impact for people in Broken Hill and Wentworth, nearby points of interest (including residences) and the LGA's more broadly. The boundaries of these localities have been selected to correspond with statistical areas identified by the Australian Bureau of Statistics (ABS).

There are two distinct areas where there is potential for social impacts to arise as a result of the Project. One is the mine site in Wentworth and the other is the haulage route that runs through Broken Hill. On this basis, both LGAs comprise the nominated social locality.

2.4.1 Wentworth LGA

The Wentworth LGA is situated in far southwest NSW encompassing an area of roughly 26,000 square kilometres.

The area encompasses a diverse range, characterised by its mix of rural landscapes, waterways, and historical significance. It is situated between the Murray and Darling Rivers with the region covering a vast area which includes Wentworth, Dareton, Buronga and other smaller localities.

The proposed project site located 75km northwest of Wentworth and is characterised by mostly flat to very gently undulating landforms, low density grazing enterprises and unsealed roads.

Adjacent properties to the site have mixed tenancies – some are occupied full time while others are less than full time. Some of the neighbouring properties are part of very large landholdings and may only be “worked“ when conditions dictate and therefore landholders and other individuals present on those properties will be governed by the seasons and grazing intensity.

For the properties within the proposed Mine Site:

- A farm manager has been appointed to run day-to-day pastoral operations who is present the majority of the time (Belmore Station);
- One landholder is an owner and occupier (Huntingfield and Sunshine Stations); and
- A third has recently been purchased by Wentworth Pastoral Company, an entity related to RZ Resources (Warwick Station).

2.4.2 Broken Hill LGA

The second social locality subset is nominated due to the haulage of heavy mineral concentrate between the Mine Site and the Rail Facility in Broken Hill and people living or working along the haulage route.

Broken Hill LGA is located in the far west of New South Wales. It is known for being one of the iconic mining towns in the country, historically associated with silver, lead, and zinc mining. The Broken Hill LGA encompasses both the urban centre of Broken Hill and its surrounding areas. Situated in the arid Outback, Broken Hill is known for its remote location and vast landscapes. The region's climate is characterized by hot summers and cool winters.

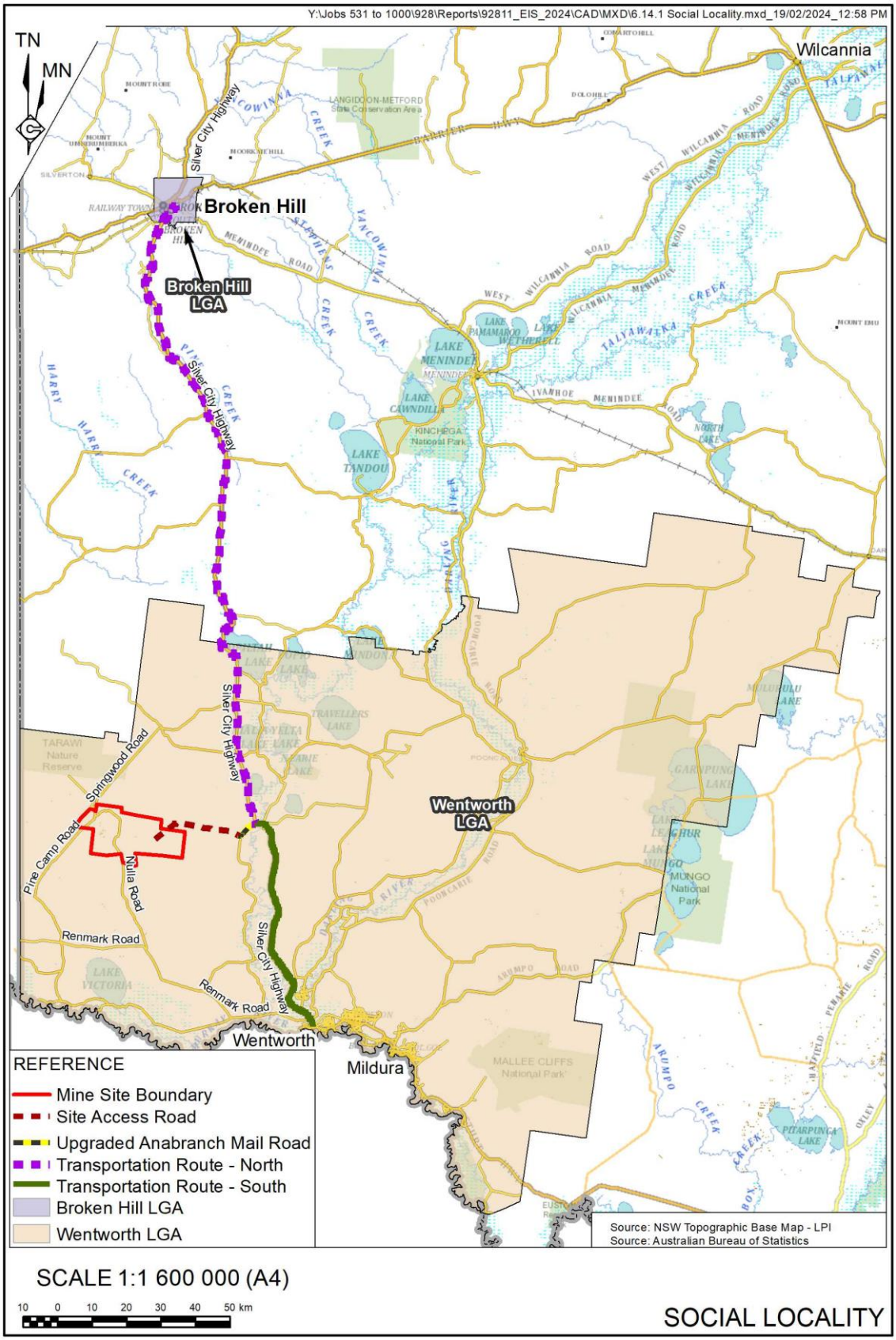


Figure 2.4 - The social locality

CHAPTER 3

METHODOLOGY

3 METHODOLOGY

In accordance with the SEARs, the methods described below enabled the collection of data to address the social impact categories defined in the Guideline (refer Appendix A – Social Impact Categories). Whilst this chapter describes the SIA methodology applied to the Project, it does not identify which social impact category each method is designed to address. This link is made clear in **Chapter 6** and summarised in **Section 7.5**.

Following this chapter, the approach to the Project stakeholder engagement is outlined in **Chapter 4**, and the social baseline is outlined in **Chapter 5**. Predicted social impacts of the Project are assessed in **Chapter 6** and positive impact enhancement, impact mitigation and residual impacts are part of the SIA conclusion in **Chapter 7**.

3.1 Scoping meeting with Project team

The initial SIA scoping task was a meeting with RW Corkery (EIS lead) and RZ Resources (the proponent) in early September 2023. The meeting enabled:

- Discussion about a SIA previously conducted for a previous Copi Mineral Sands EIS;
- Discussion about the Project features;
- Discussion about impacted landholders and surrounding population;
- Identification of potential positive and negative social impacts;
- Discussion and understanding of the Mine Site and surrounding land uses;
- The social locality development and the potential for cumulative social impacts;
- Identification and analysis of stakeholders; and
- Identification and discussion of existing Project correspondence, including consultation and environmental/social performance records.

A meeting was also held with DPHI representatives in late October. The Project team discussed the SIA and DPHI requested that the scoping report be amended to include SIA scoping results.

3.2 Literature review

Literature was reviewed to scope potential social impacts predicted to arise from major projects in development near the Project. The review focused on two nearby or recent projects: Broken Hill Cobalt Project and Hawson Iron Ore Project were reviewed. Both would utilise the Silver City Highway as a haul route, so the potential for cumulative impact was considered.

Public and internal documentation associated with the Copi Mineral Sands Mine was also reviewed for background information and the scoping of social impacts. For example, detailed records of consultation activities previously carried out by RZ Resources were reviewed. This included a community engagement log with records from October 2018 through to August 2023. During the scoping exercise, this log was reviewed in full and where necessary, validated with RZ resources staff and landholders.

3.3 Cumulative impacts

The method for considering potential cumulative social impacts associated with the Project involved thorough examination of existing literature related to nearby major projects, feedback from Project stakeholders received in meetings and conversations with landholders. Social impacts derived from dust, traffic, health, safety, and noise were among the impacts considered.

3.4 Doorknocking

Doorknocking was conducted along the haul route in Broken Hill where traffic impacts and disturbance would likely occur if the Project proceeded. Local businesses on Patton Street were targeted for commentary on the Project. Residents of Comstock Street and Eyre Street (both on the proposed haul route) were also approached for comment. In total, twelve stakeholders were approached (four businesses and eight residents). Of those, seven offered their opinions on the Project and mining projects in general.

Local businesses in Wentworth were also approached and consulted about the potential social impacts of the Project on the community and broader LGA, if the Project were to proceed.

3.5 Scoping worksheet

Element utilised the results of the comprehensive community engagement log audit, desktop review, and meetings with the project team for inputs to the DPHI scoping worksheet. A review of nearby major projects was also conducted to assess community sentiment and interest, both current and historically.

The DPHI scoping worksheet (Appendix B – Scoping Worksheet was then used to identify and consider the potential impacts associated with the Project. The process involved:

1. Using early engagement results (i.e. the community engagement log, desktop review of nearby major project, advice gathered at the scoping team meeting) as inputs to the scoping worksheet, considering each social impact matter in the Guideline and predicting how likely it would be that the Project would impact it (note that characteristics of potential impacts including extent, duration, severity, and sensitivity were considered at this initial step and recorded in the scoping worksheet, reproduced in Appendix B – Scoping Worksheet;
2. For each matter, considering and assessing the material characteristics of any likely impact;
3. For each matter, considering stakeholder/community opinions and sentiment towards the Project;
4. For each matter, determining whether a social impact will arise from the Project, and then developing a rationale for the decision;
5. For each matter, determining the level of assessment (and engagement) required in the SIA scoping phase, and selecting from the following list the most appropriate SIA type:

    - Minor – another specialist study or section of the EIS will provide the information and analysis needed to predict, evaluate, and develop a response to the social impact, including relevant primary and secondary research, qualitative and quantitative data, and appropriate engagement with potentially affected people, to establish a baseline and support predictions. If this is the case, the SIA component of the EIS only needs to review the data and findings from the other sources through a SIA lens and cross-reference and integrate them into the overall social baseline and assessment.
    - Standard – most information and analysis needed to predict, evaluate, and develop a response to the social impact will be provided by another specialist study or section of the EIS, but it will need to be supplemented with further evidence gathering and analysis to fill any gaps to obtain a complete picture from a SIA perspective.
    - Detailed – only limited or no information and analysis will be provided by another specialist study or section of the EIS. If so, the author/s of the SIA component of the EIS will need to undertake the evidence gathering and analysis needed to predict, evaluate, and develop a response to the social impact; and

Considering each matter and its associated level of assessment (determined by the DPHI scoping worksheet) in the context of the social impact categories in the Guideline.

3.6 Landholder Consultation

Landholder consultations were proposed and undertaken with key stakeholders to collect qualitative, open-ended data, and to explore the participants understanding and feelings towards specific subjects associated with the Project. Representatives of the following stations were contacted and invited to participate in the SIA:

- Huntingfield Station;
- Sunshine Station;
- Warick Station;
- Belmore Station;
- Colerain Station;
- Amoskeg Station;
- Wenba Station;
- Warrananga Station;
- Glen Esk Station;
- Bunnerungie Station;
- Nulla Station;
- Springwood Station; and
- Belvedere Station.

Conversations with the willing landholders were held between November and February 2024.

3.6.1 Project website

The Project webpage (https://rzresources.com/operations/copi-project/) was established at the start of the SIA Phase 1 and updated as the Project progressed through the EIS. The webpage is the main source of information for the Project.

Information on the webpage includes a Project description, a linked video with project information, quick facts on the project and a link to the Mineral Council of Australia fact sheet.

3.6.2 Community engagement Log

Element was provided a copy of the RZ Resources community engagement log containing details of previous Project engagement activities. These records spanned from October 2018 through to July 2023. Stakeholders relating to the Project included landholders, BHC and WC, local Aboriginal groups, people living and working along the haulage route including a school and nursing homes, and DPHI, among several other groups, entities, and individuals. Engagement methods included letters, telephone calls, attendance at the Wentworth Show, in person meeting meetings, all of which were documented and reviewed in full by Element. Information contained in the log was audited and verified by Element in conversation with stakeholders where necessary.

3.6.3 Data Limitations

Data limitations relate to the number of landholders who participated in discussions about the Project. As part of the scoping phase, all directly affected landholders or those living adjacent to the Mine Site were contacted, however one of the landholders did not respond despite follow-up contact.

An additional data limitation relates to the secondary data obtained from the community engagement log which informed the scoping worksheet. Although the Project team's secondary data was comprehensive, spanning over three years, audited by Element personnel, and

validated through discussions with relevant individuals, it's essential to note that Element staff were not the direct collectors of this data. While we acknowledge this limitation, we also recognise the efficacy of other self-performed data collection methods that enhanced and contributed to this SIA.

CHAPTER 4

SIA STAKEHOLDER ENGAGEMENT

4 STAKEHOLDER IDENTIFICATION

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 general list of people and organisations that are likely to be stakeholders in most projects. This list was valuable for providing a starting point for the Project stakeholder analysis. There will, however, always be locally-specific groups and circumstances that influence the local cultural context (Vanclay, 2015).

The locally-specific stakeholders are known to RZ Resources courtesy of their engagement conducted over the 4 years of exploration and project planning. As part of scoping the SIA, a high-level stakeholder analysis was undertaken first by leveraging the knowledge held by RZ Resources and RW Corkery staff in attendance at the scoping meeting.

Following the meeting, a desktop analysis of information provided by the Project team including the community engagement log and online sources was completed to identify other stakeholders potentially interested in the Project. The Project stakeholder list is in the stakeholder analysis **Section 4.1**.

Figure 4.1 – Project stakeholders (Source Vanclay, 2015)

4.1 Stakeholder analysis

Results of the Project stakeholder analysis are in Table 4-1. The issues of interest and engagement tools catering for each stakeholder group is shown. The predicted level of involvement and interest is also show for each stakeholder group.

Table 4-1 – Stakeholder analysis

Stakeholders	Issues of interest	Engagement tools implemented	Level of involvement/ engagement	Level of interest
Road users Main roads proposed for haulage: Patton Street, Comstock Street, Eyre Street Road, Silvercity Highway, or local / state roads used by Project staff/suppliers (i.e Anabranch Mail Road) Pedestrians Livestock	Road safety Travel delays from increased traffic Pavement and road condition	Landholder consultation Project website Doorknocking to businesses and residents along haulage route	Inform/consult	High
Government authorities DPHI – Major Projects Environment Protection Authority (EPA) Broken Hill City Council Wentworth Shire Council NSW National Parks and Wildlife	Local road and traffic impacts Community investments Community complaints Managing local business disruptions Groundwater impacts Biodiversity	Meetings with representatives of the relevant Government departments Project website	Inform Consult Involve Collaborate Empower	Moderate
Emergency services Police Fire Brigade Ambulance State Emergency Services Rural Fire Services	Traffic and road impacts (access to site and traffic volumes) Injuries to the public or staff Service capacity	Project website Project updates	Inform/consult	Low
Property owners and residents Huntingfield Station Sunshine Station Warick Station Belmore Station Colerain Station Amoskeg Station Wenba Station Warrananga Station Glen Esk Station Bunnerungie Station Nulla Station Springwood Station Belvedere Station Residents along haulage routes	Local road and traffic impacts (including potential cumulative impacts) Road user safety Construction impacts (noise, dust, vibration, land clearing and biodiversity, privacy) Delivery and storage of supplies and equipment Long-term operational impacts (traffic volumes and condition of local roads, noise, dust, and groundwater) Compliance with planning approval Project staff behaviour Visual amenity	Project website Project updates Consultation with stakeholders and property owners	Inform Consult Involve Collaborate Empower	High
Local businesses	Business/operational disruptions Revenue	Consultation with stakeholders and business owners	Inform Consult	Moderate

Stakeholders	Issues of interest	Engagement tools implemented	Level of involvement/ engagement	Level of interest
Shops along Patton Street, Broken Hill, for example: Patton Village Takeaway Australia Post – Broken Hill South LPO South Dry Cleaners	Local road and traffic impacts (delays, diversions). Operational environmental impacts (e.g., noise, dust, vibration) Contract opportunities			
Aboriginal organisations and stakeholders Barkindji-Maraura Elders Council- Kinsley Abdullah, Rowland Smith, Arthur Kirby Dareton Local Aboriginal Land Council – Pam Handy Barkiindji Maraura Environmental Team (BMEET) – Arthur Kirby Maraura//Thangkaali (Pooncarie) First Nations Owners Association – Mark Dengate Registered Aboriginal Party (RAP) – Amanda Whitton RAP – Claire Bates	Cultural heritage disturbance Interference with traditional land Employment for Indigenous people	Project website Project updates Meetings with stakeholders and property owners	Inform/consult	Moderate

CHAPTER 5

EXISTING SOCIAL BASELINE

5 EXISTING SOCIAL BASELINE

This chapter contains the social baseline developed for the Project. The baseline is the nominated set of social indicators for communities potentially affected by the Project. It provides a point of comparison; it can be used as reference data 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).

Datasets at the Broken Hill LGA and Wentworth LGA scale are those used for the baseline in this chapter. Refer to **Section 2.4** for the rationale associated with their selection.

5.1 Population Data

5.1.1 Wentworth LGA

Wentworth LGA had a resident population of approximately 7,453 people in 2021, with the vast majority of people living in the towns of Wentworth, Dareton, Buronga, Gol Gol and other settlements close to the Murray River. At the 2016 and 2011 census, the Wentworth LGA had a population of 6,794 and 6,609 people respectively, representing an annual population growth of 1.13%

Within the Wentworth LGA, 599 persons identified as Aboriginal and a further 10 identified as Torres Strait Islander in 2021, meaning that approximately 8.13% of the population identify as first nations people.

Wentworth LGA has exceeded DPHIs projected estimate of 7074 persons in 2021. According to its projections, the population is, however, expected to decline by 0.17% per annum by 2041 compared to a projected increase of 0.95% per annum for the rest of NSW. The projected data shows a relatively stable distribution in the 0–15-year age group, however a marked decrease in the 20-34 year age group. There is a steady projected increase from the age of 70 years onwards to 2041 with a significant increase in those aged over 85 years.

5.1.2 Broken Hill - LGA

Broken Hill LGA had a resident population of approximately 17,588 people in 2021. At the 2016 and 2011 census, Broken Hill LGA had a population of 17,814 and 18,777 people respectively, representing a 6.3% decline in population over the 10 years to 2021 or approximately 0.6% decline per annum. 1,708 persons identified as Aboriginal and a further 10 identified as Torres Strait Islander in 2021, meaning that approximately 10% of the population identify as First Nations people.

DPHI predicts a significant decline in the Broken Hill population over the next 20 years with an estimated total population of 10,596 by 2041 compared with a projected 16,946 in 2021. This includes a natural change (births less deaths) of 1,670 people and a net outward migration from Broken Hill of 4,680 people.

5.1.3 Age Distribution

Wentworth LGA

Age distribution is relatively even throughout Wentworth LGA (see Figure 5.1**)**. There is a slight decrease in numbers between the ages of 20 – 29 years and 40-44 years which may be indicative of the need for people in those age groups to relocate for work and other opportunities outside the region.

The median age is 43 years for the whole community and 28 years for First Nations people. Age distribution varies among age groups with higher population numbers in the 5-14 and 15-24-, 25-34-, 45-54- and 55–64-year age groups.

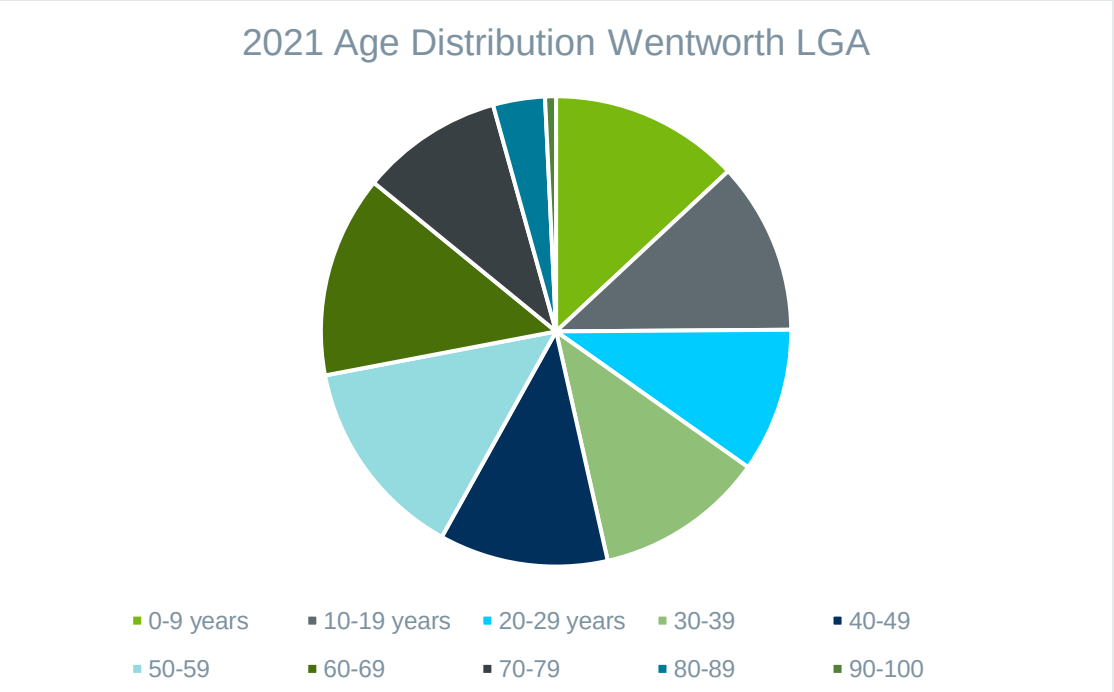


Figure 5.1 – Wentworth LGA population age distribution

Broken Hill LGA

Age distribution in Broken Hill (see Figure 5.2) is similar to that of Wentworth LGA. Of note, there are more than 600 persons aged 90-100 years. The median age of people within the Broken Hill community is 44 years.

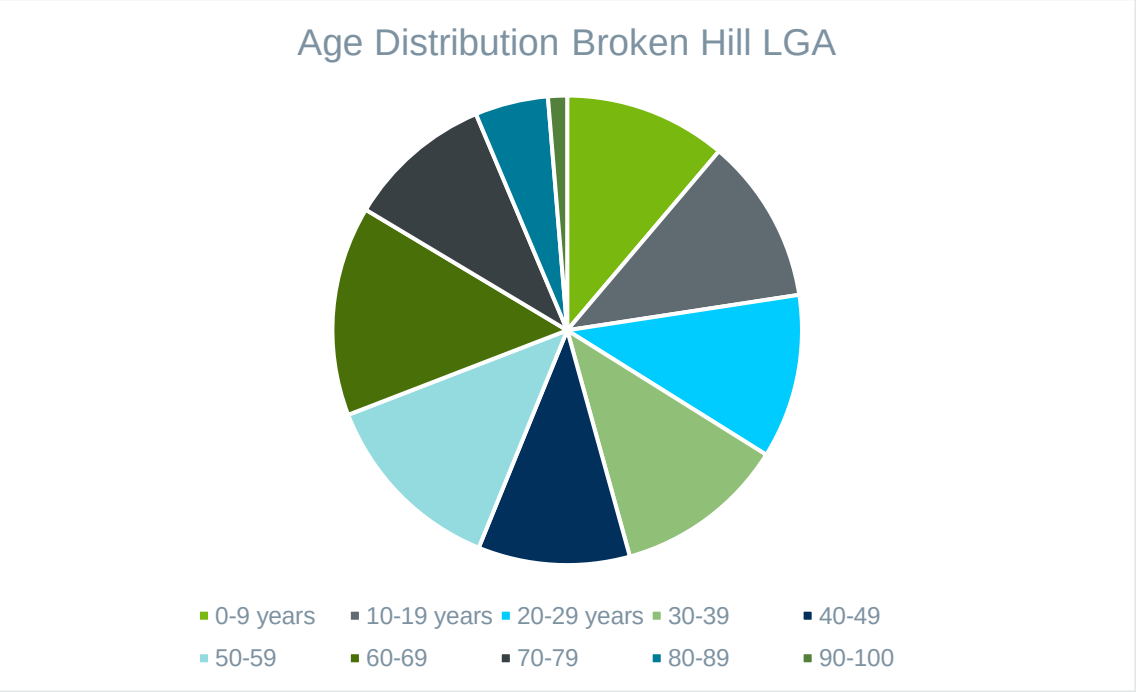


Figure 5.2 – Broken Hill LGA population age distribution

5.1.4 Employment and Labor Force

Wentworth LGA

The workforce participation rate is the proportion of the population aged 15 years and over that wish to join the workforce, regardless of whether they are employed or not.

At the time of the 2021 Census, full-time employment rates in Wentworth LGA were approximately 5%, substantially higher than for NSW and the rest of Australia. Part-time and unemployment rates were similar at 4.3, 4.9, and 5.1% respectively.

The employment rate for First Nations people was 81%, with approximately 50% of those in full-time employment.

Figure 5.3 compares employment and unemployment rates for the previous three Census periods. Of note, there was significant improvement in the labour force participation rate in 2021.

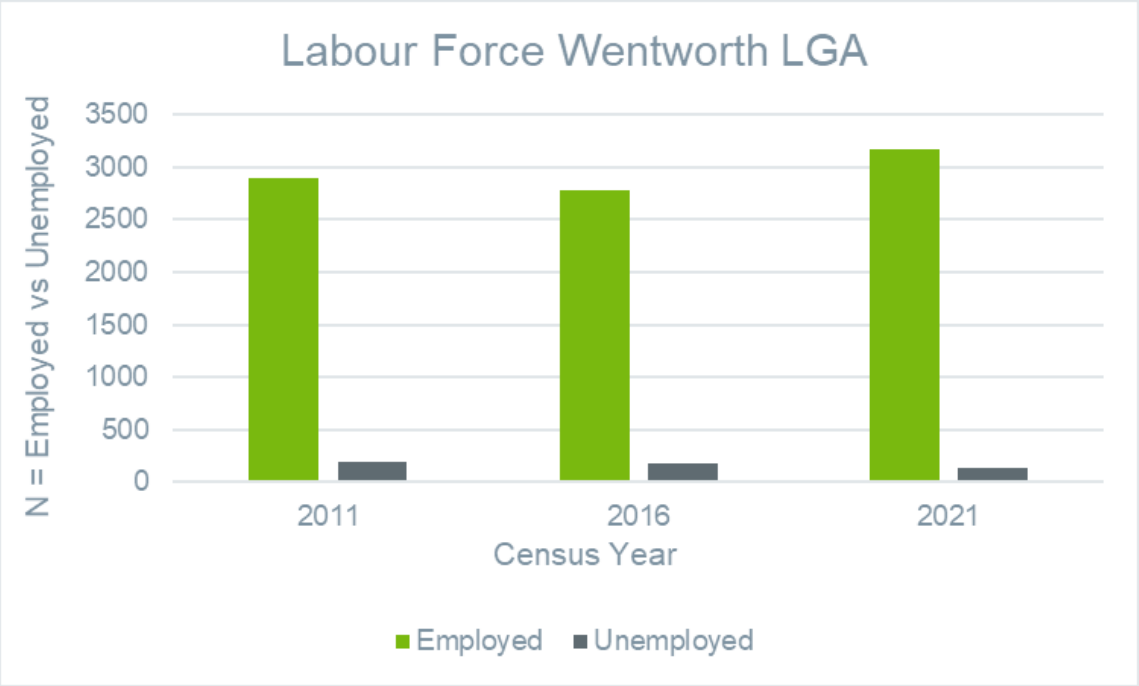


Figure 5.3 – Wentworth LGA labour force

Figure 5.4 demonstrates that agriculture is by far the dominant employment sector in Wentworth LGA. Pastoral operations are predominantly sheep farming, citrus and grape growing. Almost all persons residing within the local project area are working in this sector. The rate of agricultural employment in Wentworth LGA is higher than for NSW and the rest of Australia demonstrating the importance of agriculture to the area.

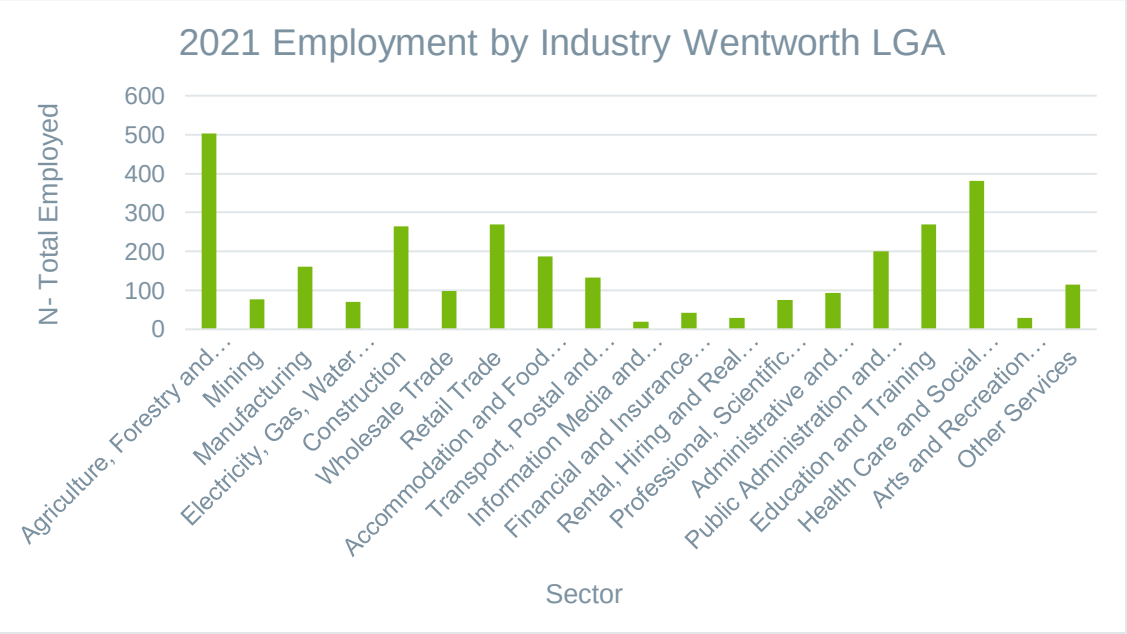


Figure 5.4 – Employment by industry Wentworth LGA

Broken Hill LGA

Employment and unemployment levels have remained relatively static in Broken Hill LGA over the past 20 years. The labour force participation rate in Broken Hill for persons aged 15 years and

over is 52%, 7% lower than NSW and 9% lower than the rest of Australia. Figure 5.5 shows the change in labour force participation between 2011 and 2021.

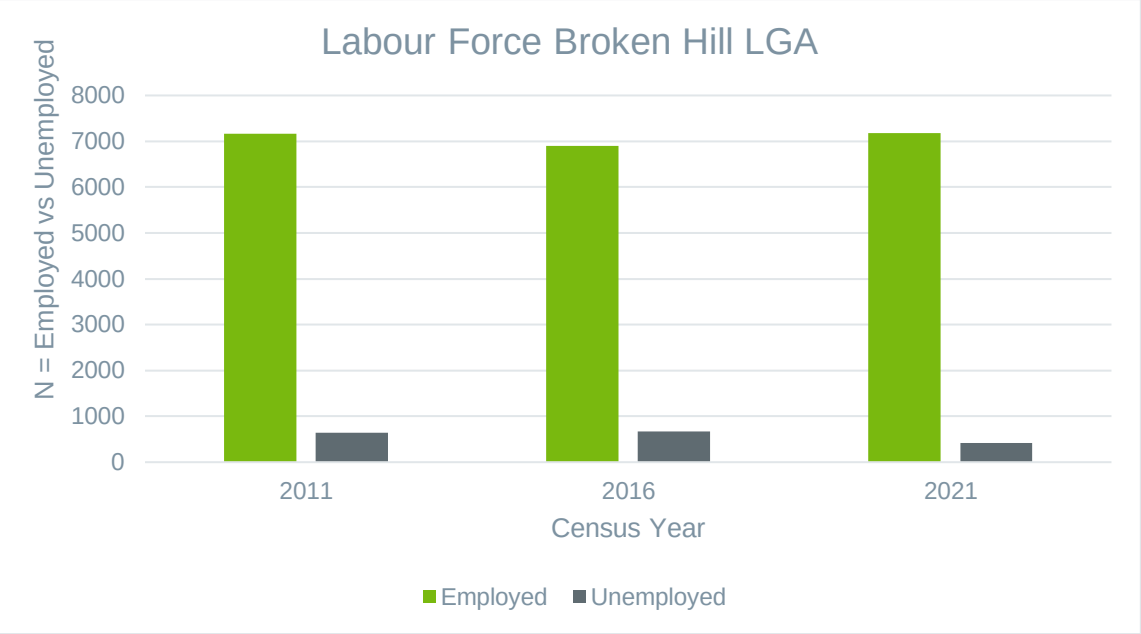


Figure 5.5 – Broken Hill LGA labour force

Figure 5.6 shows the Health and Social Services sector as having, by far, the highest proportion of employment in Broken Hill in 2021. Mining ranked second, employing a total of 789 workers. Again, machinery operators and technical and trades roles were the dominant roles within the mining industry.

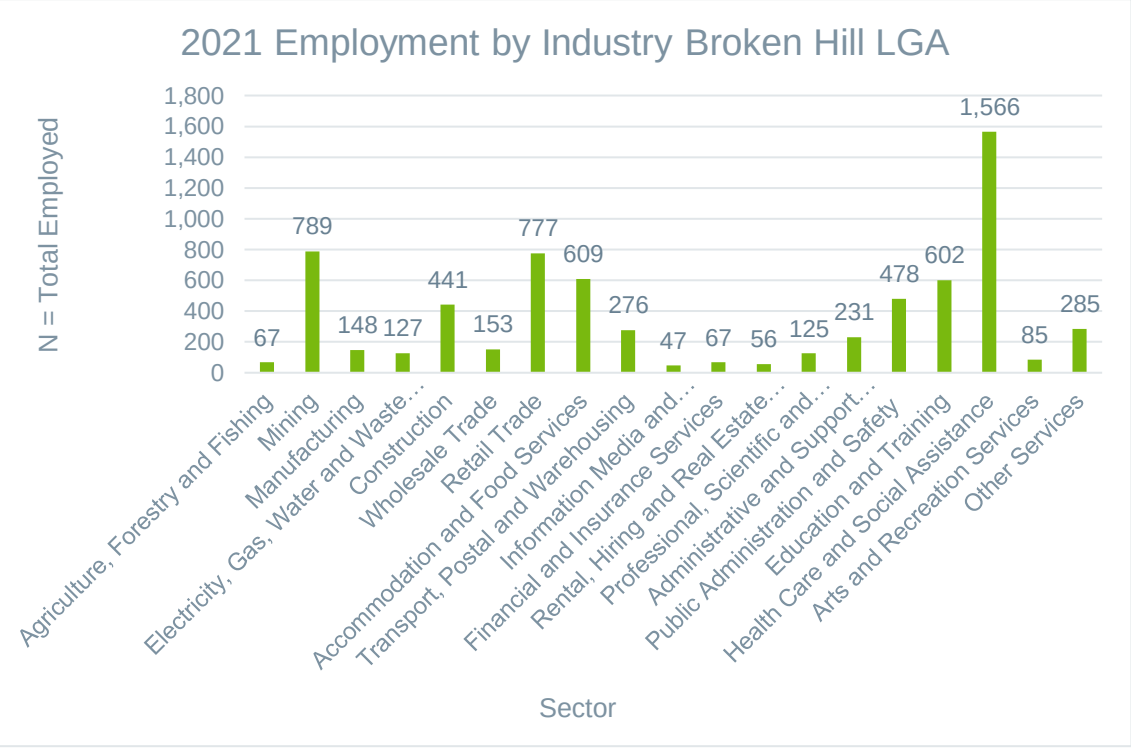


Figure 5.6 – Employment by industry Broken Hill LGA

5.1.5 Household income

Wentworth LGA

Median income is more than $437 per week lower in Wentworth LGA than the rest of NSW (see Table 5-1) and Australia with 21% of households earning less than $650 per week. Household income for First Nations people is approximately $500 per week approximately $300 less than that of the rest of NSW and Australia.

Table 5-1 – Wentworth LGA household income

Household Income	Wentworth LGA	NSW	Australia
Median weekly income	$1,392	$1,829	$1,746
Less than $650 / week	21.0%	16.3%	16.5%
More than $3000 / week	16.9%	26.9%	24.3%

Broken Hill LGA

Median income is $656 per week lower in Broken Hill LGA than the rest of NSW (see Table 5-2) and Australia with 27.1% of households earning less than $650 per week.

Table 5-2 – Broken Hill LGA household income

Household Income	Broken Hill LGA	NSW	Australia
Median weekly income	$1,173	$1,829	$1,746
Less than $650 / week	27.1%	16.3%	16.5%
More than $3000 / week	13.3%	26.9%	24.3%

5.1.6 Health

Wentworth LGA

The Wentworth LGA lies within the Western NSW Primary Health Network and is classified as Remote Australia in accordance with the Australian Institute of Health and Welfare (AIHW). The area is serviced by the Far West Local Health District which includes:

- Buronga Health One;
- Dareton Primary Health Service, and
- Wentworth Health Service (Wentworth Hospital).

Wentworth Hospital is a small rural facility consisting of 20 inpatient beds, 12 sub/post-acute beds, and 8 transitional care beds. Services provided include:

- 24-hour nurse led first aid services;
- Rehabilitation and recovery post discharge from other hospitals;
- Specialist services via telehealth;
- Transitional aged care medical, nursing and allied health services;
- Overnight care following day surgery for those without support persons at home; and
- Mental health recovery services are available in Broken Hill.

Mildura in Victoria provides the nearest larger regional hospital and health service facilities for residents of Wentworth LGA. Mildura Base Public Hospital provides acute care services to Wentworth LGA. Mildura Hospital is a 172-bed facility and is the major referral public health service for far western NSW. Services include:

- Emergency;
- Maternity;
- Intensive care;
- General Medicine and Surgery;
- Oncology;
- Dialysis;
- Inpatient and community mental health services;
- Ambulatory care;
- Pathology;
- Medical Imaging;
- Allied health; and
- Pharmacy.

Table 5-3 presents statistics related to long-term health conditions recorded during the 2021 Census. In summary, residents of the Wentworth LGA generally have higher rates of most long-term health conditions than the wider NSW or Australian population.

Table 5-3 – Wentworth LGA health statistics

Type of Long-Term Health Conditions	Wentworth LGA		New South Wales	Australia
	No	%	%	%
Arthritis	697	9.4	8.4	8.5
Asthma	688	9.2	7.8	8.1
Cancer (including remission)	241	3.2	2.8	2.9
Dementia (including Alzheimer's)	55	0.7	0.8	0.7
Diabetes (excluding gestational diabetes)	386	5.2	4.8	4.7
Heart disease (including heart attack or angina)	376	5.0	3.9	3.9
Kidney disease	101	1.4	1.0	0.9
Lung condition (including COPD or emphysema)	190	2.5	1.7	1.7
Mental health condition (including depression or anxiety)	634	8.5	8.0	8.8
Stroke	83	1.1	0.9	0.9
Any other long-term health condition(s)	510	6.8	7.8	8.0
No long-term health condition(s)	4,003	53.7	61.0	60.2
Not stated	1,046	14.0	8.1	8.1

Broken Hill LGA

Broken Hill is within the Western NSW Primary Health Network and is classified as Remote Australia in accordance with the Australian Institute of Health and Welfare (AIHW).

Health services in Broken Hill include:

- Broken Hill Base Hospital;
- Broken Hill Community Health Centre;
- Maari Primary Health Centre;
- Far West local Health District;
- Broken Hill GP Super Clinic;

- Far West Mental Health Recovery Centre;
- Headspace; and
- Lifeline Connect Broken Hill.

The Broken Hill Base Hospital caters for accidents and emergency services, admissions, aged care, and outpatient services. Additional health services, including a NSW Ambulance Service Base, a Diabetes Centre, a Child and Family Health Centre, an Aboriginal Health Service and a number of general practice surgeries, are also present. Broken Hill is also the headquarters of the south-eastern Section of the Royal Flying Doctor Service (RFDS).

Table 5-4 presents statistics related to long-term health conditions recorded during the 2021 Census. In summary, similar to Wentworth LGA, residents of the Broken Hill LGA generally have higher rates of most long-term health conditions than the wider NSW or Australian population.

Table 5-4 – Broken Hill LGA health statistics

Type of Long-Term Health Conditions	Broken Hill LGA		New South Wales	Australia
	No.	%	%	%
Arthritis	2,497	14.2	8.4	8.5
Asthma	2,118	12.0	7.8	8.1
Cancer (including remission)	596	3.4	2.8	2.9
Dementia (including Alzheimer's)	181	1.0	0.8	0.7
Diabetes (excluding gestational diabetes)	1,439	8.2	4.8	4.7
Heart disease (including heart attack or angina)	1,067	6.1	3.9	3.9
Kidney disease	273	1.6	1.0	0.9
Lung condition (including COPD or emphysema)	590	3.4	1.7	1.7
Mental health condition (including depression or anxiety)	2,084	11.8	8.0	8.8
Stroke	239	1.4	0.9	0.9
Any other long-term health condition(s)	1,497	8.4	7.8	8.0
No long-term health condition(s)	8,163	46.4	61.0	60.2
Not stated	2,120	12.1	8.1	8.1

5.1.7 Recreational and Cultural Facilities

Wentworth LGA

Recreational and cultural facilities in Wentworth include:

- The Old Wentworth Gaol;
- Perry Sandhills;
- The Murray-Darling Junction;
- Lock 10 and weir;
- Wentworth trail;
- Wentworth Pioneer Museum;
- PS Ruby;
- Ferguson Tractor Monument;
- Mungo National Park;

- Trentham Estate Winery; and
- Orange World.

Sporting and recreational facilities in Wentworth LGA include a:

- Sporting complex, consisting of an 18-hole championship golf course, 14 tennis courts, and one bowling green;
- Swimming pool;
- Bowling club; and
- Sporting club.

Broken Hill LGA

There are a large variety of recreational and cultural facilities available in Broken Hill, including:

- The Albert Kersten Mining and Minerals Museum and White's Mineral Art and Living Mining Museum;
- The Broken Hill Heritage Trail and historical buildings throughout the City;
- The Living Desert Reserve and Mutawinji National Park;
- Various art galleries and studios; and
- Stephen's Creek Reservoir.

Sporting and recreational infrastructure in Broken Hill include:

- Various sporting fields that accommodate a variety of sporting clubs (rugby league, rugby union, soccer netball, AFL and cricket);
- Two golf courses;
- Lawn bowling clubs;
- Squash and tennis courts;
- Motocross and dirt bike riding events;
- Clay target, pistol and gun clubs;
- Water ski and fishing venues; and
- The Broken Hill Regional Aquatic Centre.

5.2 Identified Trends

Wentworth LGA

The population has remained relatively stable and is projected to trend only slightly downward by 2041 by the NSW DPHI. There is, however, opportunity for the population to increase significantly with successful delivery of the Project.

Agriculture provides the highest employment in the region, particularly in the local Project area.

University education levels are significantly lower in Wentworth LGA compared to NSW and Australia. The nearest and only university campus is located in Mildura, meaning that access is restricted to online study or leaving the area to attend in-person. Certificate III and IV percentages are higher than that of NSW and Australia and are relative to higher employment in technical and trade positions.

The average household income is currently significantly lower than that the rest of NSW and Australia, however median rent and mortgage repayments are lower relative to the proportion of household expenditure on weekly rent and mortgage payments.

There were 484 unoccupied dwellings in Wentworth LGA as at the 2021 Census. It is unknown whether these were holiday dwellings or unlet rental properties, however, the requirement for accommodation for mine workers of the Project could potentially fill any existing rental vacancies.

There would otherwise be increased need for worker accommodation for those wishing to reside in the local area, indicating a shortfall in the housing accommodation market.

Broken Hill LGA

The average household income is currently significantly lower than that the rest of NSW and Australia, however median rent and mortgage repayments are lower relative to the proportion of household expenditure on weekly rent and mortgage payments.

Mining contributes a high proportion of jobs in Broken Hill.

Population growth, employment, housing affordability and income levels have remained quite stable in Broken Hill for the past 20 years. The decrease in population growth predicted from 2026 by NSW DPHI indicates that continued mining investment in the Broken Hill region will be necessary to ensure continued socio-economic prosperity for its residents and business community. The loss of mining jobs in the regions presents significant risk to livelihoods and future economic stability.

5.3 Community Values

Wentworth

All weather road safety and accessibility are of high importance to residents living in the local project area.

Improved telecommunications is of high importance to residents of the local project area, particularly in the event of an emergency given the remoteness of the residences in the area. Significantly, this was highlighted a few years ago with a light plane crash that occurred in the area, resulting in the death of a prominent local landholder. RZ Resources has made representations to government and Telstra on improving the mobile service in the area and will continue to advocate for additional mobile towers in the area.

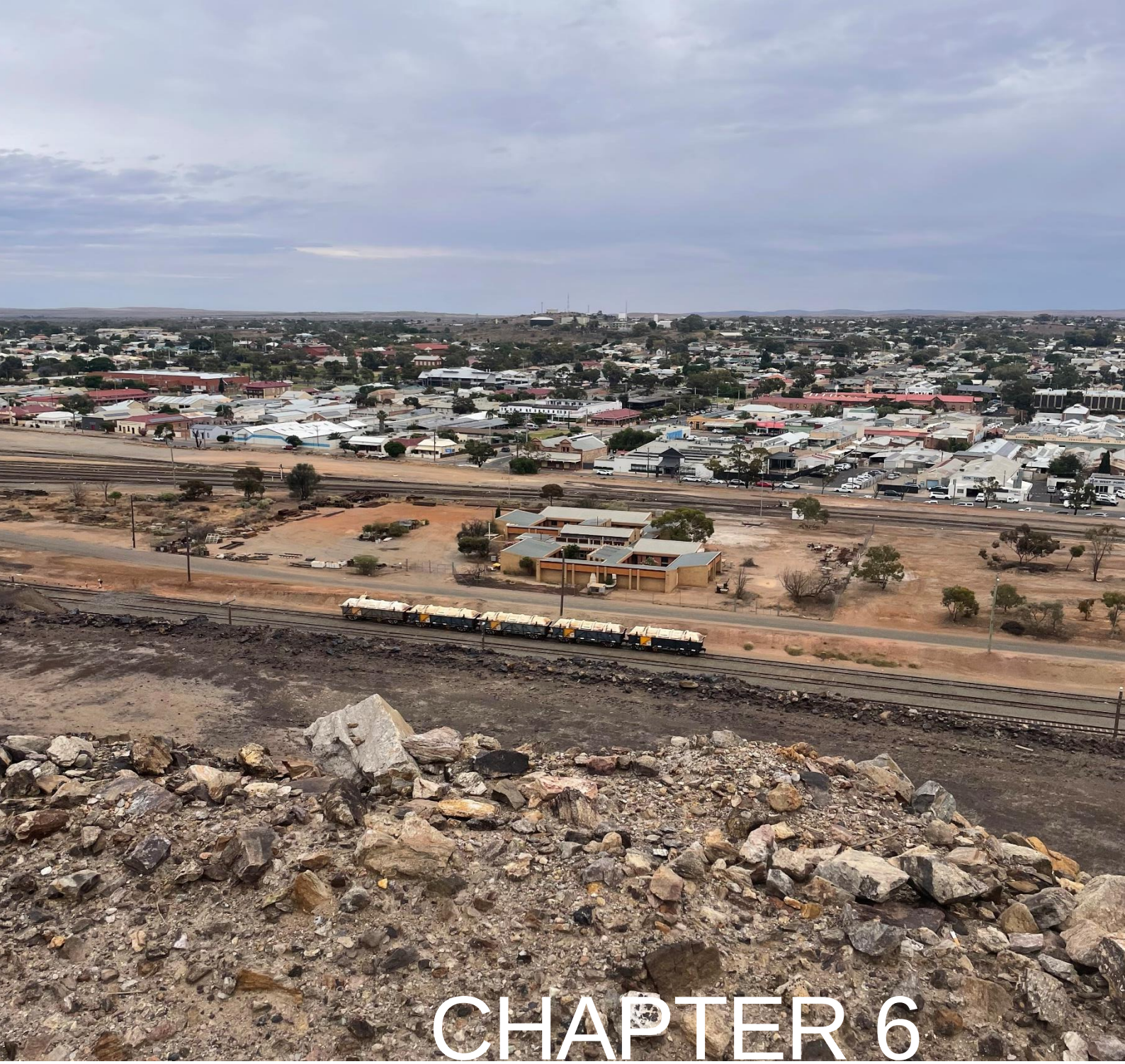
The Anabranch Hall is a much-loved community facility and great source of pride for residents of the local project area. It is the meeting place for community gatherings and functions, located on the Darling River Anabranch. The hall has been funded by grants and the Wentworth Shire Council.

Employment opportunities are positively viewed as a direct benefit to residents of the Wentworth LGA and surrounding area. The proponent has received enquiries regarding employment opportunities.

Broken Hill

The following community values were identified in relation to the Broken Hill population:

- Ensuring continued mining opportunities in and around Broken Hill to maintain the population and sustain the local economy; and
- Access to health and education.



CHAPTER 6

PREDICTION AND ASSESSMENT OF SOCIAL IMPACTS

6 ASSESSMENT OF SOCIAL IMPACTS

The aim of this chapter is to:

1. Present a summary of the SIA Phase 1 (scoping) findings and the social matters that were identified for further investigation in the SIA; and
2. Present the findings of the Phase 2 SIA and undertake the further assessment of those matters referred to above.

6.1 Scoping exercise

Element was engaged to conduct the Project's SIA following receipt of the SEARs.

As part of SIA scoping assessment, a meeting was held with the Project team to identify and discuss social issues relating to the history of the Project to date, to clarify project goals and description, to determine key stakeholders and any engagement activities and their outcomes to date, and to determine the specialist studies commissioned for the EIS.

The scoping assessment results were summarised in the scoping worksheet (see Appendix B – Scoping Worksheet). The following potential social impacts were identified as requiring further investigation in the phase 2 of the SIA:

- Livelihoods;
- Community;
- Health and wellbeing;
- Surroundings;
- Access; and
- Culture.

6.2 SIA Phase 2 assessment

In this section of the report the Project's potential social impacts are identified and discussed on the basis the Project would not implement mitigation or enhancement measures if it proceeds. However, a range of these measures are proposed for implementation. The measures are identified in **Chapter 7** and have the effect of improving the non-enhanced positive or reducing unmitigated negative social impact significance of the impacts identified in this chapter.

The evaluation of the predicted social impacts is made according to technical supplement associated with the Guideline (NSW Department of Planning, Housing and Infrastructure, 2023). For each predicted impact discussed in this section, the evaluation considers the impact likelihood and magnitude. Social impact categories from the Guideline that are omitted from the discussion below are considered immaterial to the SIA.

6.3 Assessment of non-enhanced positive impacts

6.3.1 Community

Consistent with the guideline, 'community', including its composition, cohesion, character, how it functions, and sense of place, was considered in the SIA. The matter was considered during scoping phase and determined to be a social impact category potentially affected by the Project.

Information gathered through the community engagement log demonstrated instances of past community investments made by RZ Resources. For example, the company has donated funds to the local pavilion which is an asset used by the community at events including the Wentworth

Show. Given the instances of previous investment, it is logical that RZ Resources would make additional community investments in future if the Project proceeds and subsequently, there would be a positive community impact in the social locality.

In addition to the investment mentioned above, the Project has also provided community investment by way of a grant to a PHD student to conduct research on a discovered species of rare grass near the project site. The grant provides student funding to conduct research on the rare nulla grass to learn about growth patterns, and other key aspects relevant to its preservation. The grant will total fifty thousand dollars and further demonstrates a commitment to supporting and investing in local community. It is assumed this type of investment would continue if the Project proceeds.

Another potential positive social impact that the Project would yield for the community relates to gravel supply. RZ Resources has committed to supplying gravel sourced from the Project site to the Wentworth Shire Council for use on its local road development or maintenance activities. This scenario would have a potential positive impact to community through improved infrastructure.

Considering the community investments and economic opportunities, it is predicted that the Project would create a positive impact on community in the social locality should it proceed. Without enhancements, the impact would have **high significance**, being likely to occur, with a moderate magnitude.

6.3.2 Accessibility

The next impact that was considered centres around access. According to the Guideline, accessibility includes how people access and use infrastructure, services and facilities and can include those provided by public, private, or not for profit organisations.

In the event that the Project is approved, the Wentworth Pastoral Company (an entity related to RZ Resources), in collaboration with RZ Resources intend to upgrade and establish a RFDS-registered airstrip on Warwick station for use by the Project and surrounding landholders.

The community engagement log provided details regarding the Project team initiating the design and formal registration of an RFDS airstrip on the Project site. If the Project proceeds, the Project's RFDS airstrip would increase the number of RFDS airstrips available in the area and provide an additional option for the local community to access emergency services infrastructure in a region where health and emergency services can be scarce. Registration of the strip would not only allow the Project workforce but all nearby residents access in cases of emergency, suggesting a potential positive impact to service access. Further research was conducted as it was determined that if the project did not proceed, the closest registered RFDS airstrip available in the event of emergencies (excluding the Wentworth Airport) is on a private landholding approximately one hour and 25 minutes away from the Project. This assessment acknowledges that airstrips are common on landholder properties, however the registered airstrip on the Project site would increase the number available to RFDS in the local area.

After considering the Project designed RFDS airstrip and discussing its merits with RFDS, it is predicted that the Project would create a potential positive impact towards medical service accessibility should it proceed. Without any further enhancements, the impact on accessibility would have **medium significance**, being likely to occur, with minor magnitude.

6.3.3 Culture (employment of Aboriginal people)

According to the Guideline culture represents both Aboriginal and non-Aboriginal culture including shared beliefs, custom, practices, obligations, values and stories, and connections to country, land, waterways, places, and buildings.

A potential positive Project impact for the employment prospects of Aboriginal people was identified in the interviews with Aboriginal stakeholders. The Dareton Local Aboriginal Land Council (LALC) CEO expressed an interest is seeing traineeships established as part of the Project. The LALC recommendations included civil engineering training, first aid training and a broader training program for site supervision to better understand the living conditions and issues that impact the community.

A number of the Project's mining operation roles that could increase employment opportunities for Aboriginal groups in the area were discussed and included site monitors, site supervisors, housekeeping and hospitality roles, an Aboriginal Engagement Officer, Cultural Heritage roles and committees appointed to develop a code of conduct for the site relating to culturally appropriate practices for engagement with Aboriginal groups.

Aside from employment and training during Project operations, the Dareton LALC CEO highlighted a potential Aboriginal employment opportunity that would exist post-operations, if the Project proceeds. Post mining rehabilitation spans for years and could be an appropriate avenue for Aboriginal employment. It was recommended that Aboriginal people play a lead role in the site rehabilitation.

Positive impacts relating to Aboriginal employment were also echoed through discussion with BMEET. A BMEET representative emphasised Aboriginal involvement in the Project through a number of roles that could ensure successful mining operations and increased opportunities for Aboriginal employment and training.

RZ Resources has made the following commitments in reference to Aboriginal engagement and employment for the Project:

- Continue to consult with First Nations groups, individuals and businesses, including in relation to assisting the community to implement community-led initiatives, build skills and resilience, build broad community understanding and knowledge and manage heritage objects within the Mine Site;
- Implement a Cultural Heritage Management Plan in consultation with the RAPs to mitigate cultural impacts;
- Facilitate capacity building within the Wentworth and Broken Hill LGAs, including providing training and skill development opportunities for local residences and businesses, with a particular focus on First Nations persons and businesses; and
- Preferentially engage local residences and businesses within the Wentworth and Broken Hill LGA's, with a particular focus on First Nations persons and businesses.

According to the interview results from local Aboriginal groups, and the outlined commitment made by RZ Resources, the Project's potential positive impact on Aboriginal employment is predicted to be of **medium significance** (likely to occur, minor magnitude) on culture.

6.3.4 Livelihoods

Livelihood was the next impact considered as it related to the Project. Livelihood can include people's capacity to sustain themselves through employment or business.

A potential positive impact for the Project is related to employment, training, contracting and other economic opportunities. The community engagement log indicated several local landholders living near or residing on the Project site have been approached for an array of employment or income generating opportunities in the past. Opportunities included the:

- Management of neighbouring stations acquired by the Project;
- Supply agreements with local landholders for the use of landholder owned machinery; and

- Other contracting employment opportunities such as hospitality services for the mine camp.

Should the Project proceed, these income generating activities for people in the social locality are expected to be ongoing. Subsequently, the Project's potential impact on the livelihoods in the local community and their families is predicted to be positive.

There are other potential positive impacts to livelihoods beyond direct employment at the mine site through, for example, the economic opportunities that the Project could provide to local landholders and their families. For example, lease agreements related to the lease of land for the Project's haul road would provide positive impacts to livelihoods through improved economic opportunities.

Aside from locally contracted work, should the Project move forward there is a potential positive impact to the wider community by way of job and income security for the duration of the Project which is expected to run over 25 years. The project is expected to create 480 jobs during construction, with 240 alternating jobs during operation. This assessment acknowledges that people in the social locality would not provide an adequate workforce for the Project. It would rely on a large contingent of drive-in-drive-out (DIDO) or fly-in-fly-out (FIFO) workers, however there would still be opportunities for mine workers based locally.

Comments derived from doorknocking and telephone consultation revealed this sentiment is echoed throughout both Broken Hill LGA and Wentworth LGA. Business owners approached for comment all had positive sentiment towards a new mine operating. For example:

> *"It's all progress, the community has to keep going forward, if it [the Project] injects some money into the town [Wentworth], I can't see any negatives at all" (Landholder adjacent the Project)*
>
> *"Any mining operations are supported through the community as that is the source of livelihood for the community"* (Broken Hill business owner)
>
> *"Mining is the lifeblood of this town"* (Broken Hill resident)
>
> *"No issues from my perspective. In fact, because the side road is fairly quiet, truck drivers park on the side road and grab takeaway from here, so the extra road traffic is a positive benefit for my business"* (Broken Hill business owner)

The above data suggests that, without further enhancement, the Project is predicted to have an impact of **high significance** on livelihood being almost certain to occur, with moderate magnitude.

6.4 Assessment of unmitigated negative impacts

6.4.1 Health and wellbeing

According to the Guideline, health and wellbeing includes 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.

Biosecurity risks

The community engagement log documented the concerns of one stakeholder regarding potential safety and biosecurity risks associated with mining equipment. The primary concern was the importation of pathogens and disease to farming operations without adequate protocols pertaining to equipment cleaning and management. The landholder expressed concerns that this could

continue if the Project proceeds. A similar concern was raised during a one-on-one interview with a separate landholder.

A desktop analysis of nearby or similar projects did not identify the same concerns. For example, the report for the nearby Snapper Mineral Sands SIA found no landholder or council groups indicate biosecurity as a predicted impact in Snapper Mineral Sands Project. (Bemax Resources Limited, 2006)

Additional commentary on the potential Project impacts gathered via doorknocking and telephone consultations did not identify additional concerns related to biosecurity risks for farming operations.

Considering the predicted biosecurity risks and without mitigation, the Project is forecast to have an impact of **medium significance** (i.e. possible to occur, with moderate magnitude) on health and well-being.

Radioactive material

This assessment acknowledges the concerns of two landholders about the extraction and processing radioactive minerals on the Project site, if the Project proceeds. The assessment also acknowledges EIS commentary that the quantity of radioactive material is minimal and will be managed cautiously according to best practice and relevant legislation. The highest risk is anticipated when the material would be processed and concentrated on the Project site, then during transportation. Nevertheless, the landholder concerns are recognised and should be addressed by the Project team by adequately communicating actual risk versus the landholder perceived risk.

In relation to the radioactive material extraction and handling and without mitigation, the Project is predicted to have an impact of **medium significance** (i.e. possible to occur, with moderate magnitude) on health and well-being in the social locality. The hazards assessment commissioned for the EIS specifies some measures to reduce the risk of radioactive effects to the community. These are discussed in **Chapter 7**.

Road safety

Within the context of health and wellbeing, the community engagement log conveyed Wentworth landholder road safety concerns related to increased heavy vehicle traffic derived from the Project, if it proceeds. Road safety for children (recognised as vulnerable people according to the Guideline) is a factor to consider and landholders highlighted an increased risk for young children who live (and potentially play) near the haul route. Further commentary obtained via landholder consultation revealed similar opinions regarding traffic along Nulla Road and the potential impact to safety for children who live and play on a property near that road.

In Broken Hill, doorknocking was undertaken along the haul route to evaluate the extent and magnitude of this potential impact. One resident suggested a neighbouring household with children would have some opinions about the topic. The owner of that household and parent of the children expressed support and positive sentiment towards heavy vehicles generally, stating that they provided entertainment for the children.

The traffic assessment (Tonkin Consulting Pty Ltd, 2024) commissioned for the Project highlights important safety considerations. Access to the Project site primarily relies on Anabranch Mail Road and a new Site Access Road, requiring improvements like widening and alignment changes for safe vehicle passage. During peak construction and operation, increased traffic is expected, necessitating pavement widening at intersections and local access points to reduce risks. Traffic management plans, in consultation with TfNSW, will be developed to address some stakeholder concerns, including fatigue management for more light vehicle trips. Ongoing discussions with

Wentworth Shire Council are essential to confirm road maintenance contributions, ensuring ongoing safety on the road network.

In the absence of mitigation measures, the Project is predicted to yield road safety impacts of **medium significance** (i.e. possible to occur, with moderate magnitude) for health and well-being in the social locality. Traffic impact mitigation measures are available to the Project and discussed in **Chapter 7**.

Anxiety and personal safety

A final potential negative health and well-being impact relates to anxiety and personal safety concerns held by one landholder associated with the Project. In recent years, the landholder and RZ Resources staff have on occasions argued face-to-face about various matters including property access permissions, property access notifications, and property make-good following exploration activities. Some of these arguments have inadvertently occurred in the presence the landholders' children. Feelings of anxiety and personal safety were exacerbated by reports that a firearm was once carried by an RZ Resources staff member on same landholder property without permission. RZ Resources responded to this report however the landholder expects the anxiety and personal safety concern to continue if the Project proceeds.

An assessment of this impact does not dismiss the anxiety felt by the family concerned, the issues it has raised in the past or its expectations for the future, however it must adopt the social impact tables in the Guideline. In particular, magnitude of this impact is important to consider with regard to the level of concern/interest evident in the community. Consultation results demonstrate that interest in this issue is unique to one particular family with children who are considered to be vulnerable according to the Guideline (as opposed to multiple families with no children) and on this basis the Project is predicted to have an impact of **medium significance** (i.e. possible to occur, with moderate magnitude) for health and well-being in the social locality.

6.4.2 Surroundings

Surroundings, according to the Guideline, includes ecosystem services such as shade, pollution control, erosion control, public safety and security, access to and use of the natural and built environment, and aesthetic value and amenity.

Amenity – dust disturbance

The community engagement log detailed surroundings and amenity issues in relation to predicted airborne dust disturbance. The Project stakeholders anticipate dust disturbance would arise from haulage along unsealed roads associated with the Project.

Similar predictions were made by landholders near the Project site who were consulted as part of the SIA. Some of these landholders focussed on the effect of heavy vehicle speed limits and their influence on dust disturbance. Dust impacts were echoed in three other landholder interviews where stakeholders expressed concerns that the dust would be deposited on ground-cover vegetation and render the fodder unpalatable for livestock. Another anticipated that air-borne dust particles would be deposited on rooftops which collect potable residential water supply.

Conversations (via doorknocking) with Broken Hill residents raised concerns about dust along the haul route for some residents where the roads are sealed. Other residents indicated that airborne dust disturbance is not something they experience.

The Air Quality Impact Assessment (Northstar Air Quality Pty Ltd, 2024) indicates that the Project's impact on local air-quality would be minimal, with most pollution exceedances due to existing background conditions.

Considering both community sentiment and the air quality assessment results in relation to dust disturbance, it is predicted that the Project would have an impact of **medium significance** (i.e. possible to occur, with moderate magnitude) for surroundings in the social locality. (Northstar Air Quality Pty Ltd (2024) indicates that emission controls are feasible, these are discussed in the next chapter of this report.

Amenity – effects to landholders near the mine site

Amenity impacts as they relate to light spill and noise impacts for residents living near the Project site (if and when operations are underway) were cited as potential negative impacts in the community engagement log and in landholder interviews. Specifically, some residents predicted they would experience light spill in the evening due to mining operations. Should the project proceed, operations are expected to run on a 24-hour, seven day-per-week basis.

The visual impact assessment (RW Corkery & Co Pty Ltd, 2024) suggests minimal visual impacts on the surrounding areas. The mine site's relative isolation, along with compensation agreements for nearby properties, helps reduce potential visual disturbances. Views from nearby roads and residences are limited, and any impact is considered insignificant due to factors such as road closures during mining operations and existing environmental features. Dust and nighttime light glow are addressed with proposed mitigation measures, further minimising potential visual disturbances. Transportation operations along the route are seen as consistent with existing uses, resulting in minimal visual impacts on nearby residences. Similarly, operations within the Rail Facility are deemed consistent with existing land uses in Broken Hill, resulting in negligible visual impacts for motorists. Overall, the visual amenity impacts from the project are expected to be minimal across affected areas.

During consultation with landholders living near the Project site, three landholders cited concerns about noise disturbance that might originate from mining equipment and/or vehicles. Doorknock conversations in Broken Hill also revealed that truck movements are a perceived source of noise disturbance. Conversely, a Broken Hill local business owner trading on the proposed haulage route stated that noise from heavy vehicles was not disruptive. The business owner also emphasised that increased traffic and truck movements would positively influence the takeaway business revenue.

The Noise Impact Assessment conducted by Muller Acoustic Consulting Pty Ltd (MAC) (Muller Acoustic Consulting Pty Ltd, 2024) for the proposed Copi Mineral Sands Project confirms compliance with relevant noise criteria during both construction and operational phases. Construction activities, including onsite construction and road upgrade works, are predicted to temporarily exceed noise standards at certain sensitive receiver locations. However, these exceedances are anticipated to occur for short durations and do not pose significant long-term impacts.

Road noise generated by operational traffic is also assessed to meet criteria specified in the Road Noise Policy (RNP) at nearby sensitive receivers. Importantly, maximum noise levels are predicted to remain below thresholds for sleep disturbance at all residential receivers, indicating minimal likelihood of awakening reactions due to Project-related noise sources.

Overall, the Noise Assessment findings align with the EIS for the Project, indicating that no mitigative measures are required to address noise impacts. However, proactive communication with potentially affected people prior to the initiation of construction works is recommended to manage any temporary noise exceedances effectively.

Without any mitigation, the project is expected to have **low** impact significance being unlikely to occur with minimal magnitude.

6.4.3 Accessibility

The Project is predicted to yield a positive impact to accessibility (refer **section 6.3.2**) however there is also potential for it to produce the negative impacts described below.

Potential negative impacts on access to essential services, such as emergency and medical services, were raised in the community engagement log and a stakeholder meeting. For example, one landholder:

1. Stated that mobile reception is poor in the area surrounding the Project;
2. Emergency and other medical services in the Wentworth LGA are not well-resourced to respond to emergencies; and
3. Posited that an influx of the Project's workforce to the Wentworth LGA could lead to increased accidents (e.g. traffic or mine related).

Considering these circumstances, the landholder predicted that the Project would negatively impact services accessibility in Wentworth if it proceeds. This issue was not raised in doorknock conversations or interviews conducted for the SIA.

Medical services and facilities are available in Dareton and Wentworth, with Wentworth District Hospital offering a 24-hour emergency service. Mildura hosts a base hospital serving the Wentworth Shire, equipped with 114 beds and a round-the-clock emergency facility. Broken Hill serves as the sole "base" hospital in the Far West Area, acting as a referral centre for surrounding communities and maintaining a 24/7 emergency department staffed with medical personnel.

Data sourced from the Australian Institute of Health and Welfare website (Australian Institute of Health and Welfare, 2024) concerning emergency department presentations at Mildura Base Hospital indicated a gradual increase over the past five years, albeit with fluctuations attributed to the COVID-19 pandemic. There was also an increase in the proportion of emergency department patients that commenced treatment on time, from 53% in 2021/22 to 56% in 2022/23, suggesting there is improving emergency health service capacity.

In a desktop review of the Snapper Mineral Sand Mine social study (Bemax Resources Limited, 2006) no similar accessibility issues were reported.

Considering the data described above, the mobile reception coverage surrounding the Project, and the Project's workforce requirement, the Project's potential impact on accessibility is evaluated to be of **low significance** (unlikely to occur, with minimal magnitude) without the application of mitigation measures.

6.4.4 Livelihoods

Section 6.3.4 of this report described the potential for the Project to yield some positive livelihood impacts. There is also the potential for negative impacts described below.

If the Project proceeds, negative impacts pertaining to livelihood were predicted by one landholder in the context of mining operations. For example, the landholder:

- Predicts connectivity of his on-farm water storages would be disrupted, potentially reducing farm workability. In addition, the landholder predicts that mining operations would create groundwater interference and lower the water table around salt pans, potentially restricting the growth of salt bush which serves as fodder for the landholder's livestock during dry periods.
- Anticipates that mining equipment operating along the property boundary shared with the Project would disturb and prevent livestock from grazing. Subsequently, the landholder anticipates a portion of his farm would be sterilised.
- Raised concern about the possibility of property devaluation due to the above impacts.

- Forecasted a 50% reduction in revenue if the Project proceeds adjacent to his farming operation.

If the Project proceeds, access to water and the preservation of farm workability would need to be preserved as a basic landholder right.

The groundwater impact assessment (GIA) (Geo-Eng, 2024) for the Project indicates that mining activities would have a limited impact on the groundwater table, extending only a few kilometres from the mine site. Water usage during mining operations is estimated to average about 4.5 GL/yr, representing approximately 5.9% of allocatable groundwater from the Western Murray Porous Rock Source. The aquifer's hyper-salinity restricts the potential for terrestrial groundwater-dependent ecosystems, and rapid evaporation of ponded water in salinas prevents permanent aquatic ecosystems.

Regarding the management of impacts on groundwater users, the Project is not anticipated to affect other water users due to the absence of nearby users of the upper-aquifer and the presence of intervening aquitards in the lower-aquifer.

In relation to grazing along the shared boundary, operation of heavy equipment, including farm machinery, is not an uncommon activity, with significant reduction in grazing and animal welfare not frequently reported as a potential livelihood impact. Similar concerns with disturbance of livestock along a shared boundary lines were not reflected in the available socioeconomic studies of nearby major projects such as the Ginkgo Snapper Mine project. Subsequently, whilst the landholder's prediction is not dismissed, confidence that the Project would yield this impact is slightly diminished.

Lastly, the potential for livestock loss derived from contact with Project vehicles is anticipated to create a negative impact to livelihoods. During a one-on-one interview, a landholder conveyed this expectation relating to the safety of his livestock along Renmark Road, Nulla Road and Springwood Road. In light of the haul road re-design, no Project vehicles would travel along these roads and subsequently, this impact is no longer relevant and deemed immaterial to the Project.

Considering the opinions of the two landholders and assuming there is no mitigation, the Project's negative impact to livelihood is precited to be of **medium significance** being possible to occur with moderate magnitude.

6.4.5 Community

Community cohesion and trust

A description of the 'community' social impact category is provided in **section 6.3.1.** Aside from positive community impacts that the Project is expected to yield, there is also potential for the Project to produce a negative impact in terms of community cohesion and trust if the Project proceeds.

The potential impact stems from the relationship between RZ Resources and one adjacent landholder. The relationship between both parties has eroded over the previous years as a result of exploration activities and interactions between the parties during the property sale negotiations. The following events are understood to have influenced this scenario:

- Exploration activities caused damage to the landholder's property and substantial subsidence and exploration tracks remain in multiple locations;
- It was reported that RZ Resources staff publicly disclosed the status of property purchase negotiations which damaged the landholder's reputation among acquaintances;
- RZ Resources and the Resources Regulator agreed to enforceable undertakings pertaining to property rectification in the past; and

- RZ Resources staff entered the landholder's property on some occasions without notice or permission.

More recently and during the course of the SIA, the landholder received written correspondence from RZ Resources about the landholder's timely participation in the:

- Arbitration process being pursued by both the landholder and RZ Resources; and
- Consultation activities required for this study.

Via the written correspondence, RZ Resources sought to prioritise the landholder's participation in the arbitration process and it was perceived by the landholder as an attempt by RZ Resources to interfere with the SIA consultation activities. The correspondence had the effect of pressuring the landholder to comply at a time when the landholder was recovering from a health condition.

If the Project is approved, the landholder predicts they will have difficulty trusting RZ Resources to operate appropriately on the neighbouring property.

It must be emphasised RZ Resources has alternate perspectives on some of the matters raised by the landholder. For example, the outcome of investigation conducted by the NSW Government Resources Regulator into the breaches above pertaining to property damage and subsidence had not been sustained and the investigation into this matter was closed on 24 January 2024.

In addition, consultation with other Project stakeholders (including other directly affected landholders) revealed healthy relationships that demonstrate the potential for positive community cohesion and trustworthy relationships should the Project proceed.

As with the earlier evaluation of the Project's potential impact on landholder anxiety, the assessment of this impact does not dismiss the landholder's hardships. However, the social impact tables in the Guideline encourage the SIA to consider impact magnitude and the level of concern/interest evident in the community. In this case and considering the data available for the study, it is acknowledged that one directly affected family (as opposed to many families or a majority of the community) is at the centre of the Project's potential negative impact. As such, the Project is predicted to have an impact of **medium significance** (i.e. likely to occur, with minor magnitude) for community in the social locality if no mitigation measures are applied.

Community function (housing)

Another potential negative impact to community raised by a landholder relates to community function. Increased housing demand in Wentworth created by the Project's workforce was the observation made by the landholder. Despite the provision of workers' accommodation on-site, the landholder foresees an increase in housing demand as a result of the mine operations. Furthermore, the landholder predicts a surge in housing demand is likely to disproportionately impact individuals in disadvantaged socio-economic circumstances.

To investigate this potential impact, the mine closure timeframes for nearby projects such as Snapper and Ginko were explored. It is likely the closures will occur in 2026 and the majority of the workforce would transition to the Project. This transition would offset the potential workforce housing demand.

Results from the Economic Impact Assessment (Synergies Econmic Consulting, 2024) indicate during the construction phase, while managers and clerical/administrative workers are expected to be readily available locally, sourcing professionals and technicians/trade workers may pose challenges due to the concentration of these workers in specific industries and the need for potential retraining. Similarly, although machinery operators and drivers are abundant locally, labourers may require sourcing from both employed and unemployed individuals within the region.

For the operational phase, the challenge persists, particularly for professionals and technicians/trade workers, where the regional labour market faces shortages. While clerical/administrative workers and machinery operators/drivers are expected to be locally available, meeting the demand for skilled positions may necessitate sourcing from outside the region putting increased strain on housing supply.

The Project is anticipated to significantly impact employment in the Wentworth region, supporting a diverse range of industries. However, with a low unemployment rate and limited labour supply, meeting the project's labour demands poses a challenge. The planned closure of nearby mineral sands mines may alleviate some labour and housing constraints, allowing for the potential transition of mine workforce from the nearby mine to the Project. Nevertheless, it is likely that the professionals and technicians/trades required to service the Project would require a combination of a DIDO/FIFO contingent to be accommodated by the Project's mine camp, and other employees to be housed in surrounding townships, potentially creating flow on effects to the supply of local affordable housing.

AHURI (2024) identifies that "housing stress" arises when households have to pay too large a proportion of their income in housing costs and thereby reduce spending on other essentials such as food and health care. In this regard, the 30:40 indicator identifies households as being in housing affordability stress when the household has an income level in the bottom 40 per cent of Australia's income distribution and is paying more than 30 per cent of its income in housing costs.

In 2021, the bottom 41.2% of Australian households had a weekly household income below $449.70 (the "threshold") (.Id, 2024). Wenworth LGA household income data in **Table 5-1** illustrates that the bottom 21% of households have a household income of less that $650/week, almost $200 per week more than the threshold. It is assumed that a percentage of these Wentworth LGA households would in fact earn less than the threshold. Nevertheless, according to real estate data (Real estate, 2024), 55 rental properties were available for rent in early March 2024 a weekly rental payment of $450/week or less. This indicates that (at the time of the real estate search) there was some rental stock available for low-income earners in the Mildura LGA.

Considering the data described above, the Project's workforce requirement, and the existing labour force predicted to transition over with the upcoming closure, the Project's potential impact on housing is evaluated to be of **medium significance** (possible to occur, with moderate magnitude) without the application of mitigation measures.

CHAPTER 7

SOCIAL IMPACT ENHANCEMENT, MIIGATION, AND RESIDUAL IMPACT

7 IMPACT ENHANCEMENT, MITIGATION, AND RESIDUAL IMPACT

This final chapter of this report identifies Project refinements, enhancements of some of the positive social impacts, and mitigation measures for some of the negative social impacts identified in **Chapter 6**. The impacts are then re-evaluated and residual impacts are predicted. The residual impacts are the predicted outcomes of the Project's SIA.

7.1 Project refinements

During SIA Phase 1, four potential negative social impacts associated with the Project were identified and targeted as Project refinement opportunities by the Project team. Table 7-1 identifies the social impacts and the Project refinement either adopted or still being considered by the Project team.

Table 7-1 - Project refinements

Project social impact predicted in SIA Phase 1 impact	Project refinement	Status
Accessibility (How people access and use infrastructure) The haul route in the Project's original design would have caused a closure of Nulla Road for the life of the Project.	The haul route was modified and a new site access road was designed to the east of the Project (refer Figure 2.1), resulting in a shorter route to the highway and a Nulla Road closure time reduction.	Adopted by the Project
Surroundings (Amenity) Community concerns about dust generated by the Project's construction and operation in relation to heavy vehicle movements on unsealed roads.	Haul route was reoriented through private properties according to lease agreements. The haul route requires heavy vehicles to travel a shorter distance on unsealed roads and lease payments offset any dust disturbance to the landholders hosting the haul road.	Adopted by the Project
Access (Emergency services) RFDS airstrips assist access and response time for emergency services	A RFDS airstrip would be established should the Project be approved. The airstrip would increase the number of airstrips in the area could be used by both mine staff and the broader community during emergencies.	Contingent on Project approval
Surroundings (Amenity) The Project was predicted to create evening noise disturbance to some residents.	Evening operations were reduced or eliminated from Project plan. The aim of the refinement was to reduce potential evening noise impacts for the remaining landholder (all other landholders executed property purchase agreements).	Adopted by the Project

7.2 Enhancement of positive social impacts

7.2.1 Culture (Aboriginal employment)

The predicted positive impact that the Project would provide for the employment of Aboriginal people could be enhanced by the creation of an Aboriginal employment policy/strategy. RZ Resources is an equal opportunity employer and intend to employ Aboriginal people on the Project should it proceed. This intention could be formalised by developing an Aboriginal employment policy at the corporate level and applying it to any project's pursued by the company.

Representatives from both the Dareton LALC and BMEET have expressed their interest in the development of such a policy and expressed their desires for a partnership with RZ Resources.

If such an enhancement was implemented, the positive impact is predicted to have **a high significance** (likely to occur, moderate magnitude).

7.2.2 Livelihood

The anticipated positive impact of the Project on local businesses could be further strengthened through the adoption of a dedicated local business strategy or a formal procurement policy aimed at prioritising local business owners. Throughout the exploration phase, there has been a demonstrated commitment to offering employment and contractual opportunities to local businesses. However, formalising this commitment with a policy geared towards local businesses and suppliers could significantly amplify the positive effects on the broader community.

Feedback from some Project stakeholders and nearby landholders has indicated support for the Project, particularly regarding employment opportunities it would create in the local community. Implementing a formal procurement policy would enhance the positive economic impact on individuals and their families.

To mitigate ongoing water extraction, the final dredge pond will be backfilled above the natural groundwater table.

With the implementation of such a procurement policy, the positive Project impact is predicted to be of **very high significance** (almost certain to occur, with major magnitude).

7.3 Mitigation of negative social impacts

7.3.1 Health and wellbeing

Biosecurity

Biosecurity risks identified in **Section 6.4.1** centred on the potential importation of disease to farming operations adjacent to the Project if it proceeds. A fear of crop and livestock destruction was expressed by two landholders during SIA consultation activities.

There are some mitigation measures available to the Project which would reduce the potential biosecurity risks. It is expected that movements of personnel and mining equipment would be highly controlled if the Project proceeds and in comparison to the exploration phase of the Project, dedicated perimeter fencing would improve the physical separation of the mine from nearby farming operations. In addition, more stringent mine induction and access procedures would apply to all personnel.

In relation to weed spread controls, the biodiversity study (Envirokey, 2024) commissioned for the EIS also recommends:

- Soil and seed material is not transferred into the site the following measures to reduce negative impacts to ecosystems surrounding the mine site; and
- Any weed infestation found to occur within the construction footprint is to be identified and mapped for appropriate management as part of a Biodiversity Management Plan.

Assuming the above mitigation measures would be applied, it is predicted that the Project's negative biosecurity related impact on health and well-being would be reduced to a **low significance** (very unlikely to occur, moderate magnitude).

Radioactive material

In **section 6.4.1** the Project's intention to extract and process radioactive material was considered to be a negative health and well-being impact for people in the social locality. This evaluation was on the basis no mitigation measures would be applied.

RZ Resources has a range of mitigation measures available to respond to this potential social impact. For example, the Radiation Management Plan (RZ Resources, 2024) commissioned for the EIS specifies a number of protective measures to reduce the risk of radiation to the community. They include:

- Minimisation of dust generation and inhalation during production, storage, and transport through design, restricted access, and if necessary, the use of respiratory protection;
- Spillage control, effective clean-up of workplaces and personal hygiene;
- Planning to ensure that there are no major quantities of gamma-emitting materials which are close to continuously occupied workplaces through good design or shielding;
- Continuous monitoring; and
- Appropriate maintenance and management of Fixed Industrial Gauges and X-ray Fluorescence (XRF) Apparatus.

The management plan also outlines a number of monitoring and risk management processes (including staff training) in relation to both fixed and mobile (i.e. transportable minerals) radiation sources. Refer RZ resources (2024) for more details.

Element also recommends that communication material be developed to address the perceived risk of radiation held by landholders. A fact sheet outlining the material extraction, processing and handling process would be beneficial to assist with transparency and to address any anxiety held by nearby landholders. The specialist commissioned to complete the EIS study could also be made available at the cost of RZ Resources to meet relevant landholders and answer questions they may have.

On the basis the above mitigation measures are implemented, it is predicted that the Project's negative radiation related impacts on health and well-being would be of **low significance** (very unlikely to occur, moderate magnitude).

Road safety

An assessment of the Project's potential health and wellbeing impact from the perspective of road safety (see **section 6.4.1)** involved a discussion about the safety of children living near the haul route in both Broken Hill and Wentworth LGAs.

Common mitigation measures implemented by major project are heavy-vehicle driver inductions, vehicle tracking and code of conduct. It is recommended that these measures be implemented if the Project proceeds. According to these measures, drivers of heavy vehicles associated with the Project would be bound by the code of conduct, including behavioural expectations for regular drivers. The code of conduct should emphasise the sensitivity of adjacent landholders and the potential for children to be present near homesteads or in the built-up residential streets in Broken Hill. Extra driver caution could be encouraged at these locations.

Vehicle tracking will allow the enforcement of the speed and time restrictions within the driver code of conduct and facilitate greater compliance with both the code and normal road rules.

Assuming the above mitigation measures are implemented, it is predicted that the Project's negative health and well-being (road safety) impact would be of a **medium significance** (unlikely to occur, moderate magnitude).

Anxiety and personal safety

The final health and wellbeing impact deemed relevant to the Project related to anxiety and personal safety threats. Relevant matters discussed in **section 6.4.1** included arguments between RZ Resources staff and the landholder and reports of a firearm being present on the landholder's property.

Element understands and acknowledges that:

- Arbitration is underway between the parties in relation to past exploration activities, rehabilitation of remaining exploration disturbance and Project's planning application; and
- Relevant NSW legislation governs firearm possession in the State.

Element is not privy to arbitration proceedings and it is beyond the scope of the SIA to comment on the above matters. There is however one observation relevant to the Project's ability to mitigate anxiety and personal safety threats experienced by the landholder. As stated earlier in this chapter, it is expected that mining personnel and equipment would be highly controlled if the Project proceeds and in comparison to the exploration phase of the Project, dedicated perimeter fencing would improve the physical separation of the mine from nearby farming operations. In addition, more stringent mine induction and access procedures would apply to all personnel.

Finally, it is recommended that RZ Resources provides assurances to protect the current conditions relating to livestock fodder adjacent the mine site and potable water supply for fence line neighbours.

It is expected that a mutually positive arbitration outcome in combination with the abovementioned mitigation measures would improve the impact to a **low significance** (very unlikely to occur, moderate magnitude).

7.3.2 Surroundings

Amenity – dust disturbance

Based on landholder consultation records and interview commentary, amenity (dust disturbance) was assessed to be a potential social impact relevant to the Project. It was predicted that dust originating from the Project would be deposited on ground-cover vegetation preferred by livestock, and on household roof tops which harvest potable water supplies. Broken Hill stakeholders did not convey any similar concerns.

The air quality impact assessment (AQIA) (Northstar Air Quality Pty Ltd, 2024) indicates that proposed particulate control measures will effectively minimise air quality impacts to nearby landholders. Several mitigation measures are proposed as part of Project operations, including the application of water and/or chemical suppressants on unpaved haulage routes, limiting on-site vehicle speeds, and utilising wet processes for ore extraction. Additionally, an air-quality management plan developed for the Project would ensure the inclusion of relevant controls, overseen by the site manager to enforce their implementation. Specific measures would be applied along Anabranch Mail Road, and the management plan would identify controls, specify consultation requirements with adjacent residents, and manage complaints. It's expected that particulate matter generation during offsite transportation can be managed adequately through these controls.

Predictions from the air quality impact assessment indicate no significant exceedances of air quality criteria due to the Project's operation. Incremental impacts are predicted to be relatively small compared to background concentrations, so no additional air quality monitoring is anticipated. However, regular audits would ensure proper implementation of air quality control measures.

Aside from the technical mitigation measures identified in the AQIA, an additional mitigation measure recommended to lessen the potential social impact is to communicate specialist study results to any concerned stakeholders upon their request. This practice may alleviate any perceived risk the Project would have on dust and air quality.

On the basis the above mitigation measures are implemented, it is predicted that the Project's negative dust related impacts on surroundings would be of a **low significance** (unlikely to occur, minor magnitude).

Amenity – effects to landholders near the mine site

The NVIA by Muller Acoustic Consulting (2024) demonstrate compliance with relevant noise criteria for both construction and operational phases of the Project. Overall, the assessment supports the EIS for the Project, with no ameliorative measures deemed necessary. However, the acoustic specialist states that early and ongoing communication with potentially affected receivers is recommended for noisy Project related activities.

In relation to potential visual impacts caused by the Project, the VIA recommends the use of non-reflective, neutral-coloured materials for constructing on-site infrastructure to reduce visual disturbance. Additionally, the Applicant plans to progressively rehabilitate disturbed sections of the Mine Site that are no longer required for the Project, re-vegetating these areas to restore the natural environment. Active dust management techniques will be employed to minimise the creation of dust clouds, particularly during site establishment and transportation activities. The use of nighttime lighting will be minimised wherever possible, with lights directed only towards active operational areas to prevent excessive light shining towards the nearby resident. Fixed nighttime lighting will be angled downward to minimise light spill from the Mine Site. Furthermore, lighting within the Rail Facility will be directed away from Menindee Road during rail loading operations to avoid distracting motorists at night, with only sufficient lighting operated for safety and security purposes, also directed away from the road during other times.

If the above mitigation measures recommended in the NVIA and VIA are applied to the Project, then the Project's noise impacts would be forecast as **low** (unlikely and of minor magnitude).

7.3.3 Livelihoods

The anticipated negative impacts the Project is predicted to yield for livelihoods in the social locality is outlined in S**ection 6.4.4.** If the Project proceeds, farm workability, livestock conditions, adjacent property values, and business revenue were the matters considered in the absence of impact mitigation measures.

It was previously stated in this report that access to water and the preservation of farm workability would need to be preserved as a basic landholder right should the Project proceed. Furthermore, there are some feasible mitigation measures that are recommended for the Project.

Aside from the technical mitigation measures identified in the GIA (Geo-Eng, 2024), an additional mitigation measure to lessen the potential social impact would be to meet in-person with the relevant landholders to present and discuss groundwater monitoring results. This practice may alleviate any perceived risk the Project would have on groundwater accessibility.

If the Project proceeds, there is also an opportunity for the property devaluation expectations of the relevant landholder to be addressed through a compensation agreement. This is another livelihood impact mitigation measure considered as part of this assessment.

An evaluation of the unmitigated Project livelihood impacts were determined to be of medium significance (possible and of moderate magnitude). If the above mitigation measures are

implemented by the Project, then the improved significance rating would be forecast as **low** (unlikely to occur, with minor magnitude).

7.3.4 Community

Community cohesion and trust

In response to the potential negative impact the Project would have on community (cohesion and trust) (refer **section 6.4.5**), it is recommended that RZ Resources develops (or revises should it exist already) a Landholder Relations Plan along with a robust landholder communications and engagement strategy. The plans should be prepared in consultation with and review by the Community Consultation Committee to promote transparency and openness with the landholders while also demonstrating a commitment to protect personal information. Specific measures could include:

- Offering to discuss the results of all specialist studies with individual landholders;
- Appoint a senior manager who is a communications professional with authority and resources to be a point of contact for landholders, act as a liaison, and to address Project related enquiries, concerns, and any landholder grievances. That person should have authority and resources to act and respond to landholder concerns and be sufficiently across the operation of the Project to be able to respond knowledgably to landholder enquiries;
- Developing and delivering fact-sheets for technical aspects of the Project such as the Project's influence on groundwater or the processing and security of radio-active material; and
- Providing regular (e.g. monthly) updates about the Project if it proceeds.

These management plans would alleviate stress and uncertainty among landholders regarding future project activities.

If the above measures are implemented, it is predicted that the Project would have an impact of **medium significance** (i.e. possible to occur, with minor magnitude) on community cohesion and trust.

Community function (housing)

The impact of FIFO/DIDO workers on reducing community function in the Project's social locality is predicted to hold moderate significance. While the need for an out-of-region workforce is recognised in the economic impact assessment (Synergies Econmic Consulting, 2024) to bridge skills and employment gaps, the potential closure of nearby mining operations offers a prospect for housing stability within the area.

To alleviate the Project's potential demand on local housing supply from workforce migration to the social locality, a Project strategy to prioritise the employment of local residents (thereby reducing the demand on housing stock required by an otherwise in-migrating workforce) is recommended. Some strategies that the Project has committed to in this regard include:

- Developing a local business strategy or a formal procurement policy aimed at prioritising businesses within the Wentworth and Broken Hill LGA's;
- Preferentially engaging local residents within the Wentworth and Broken Hill LGA's, with a particular focus on First Nations persons;
- Facilitating capacity building within the Wentworth and Broken Hill LGAs, including providing training and skill development opportunities for local residences and businesses, with a particular focus on First Nations persons and businesses.

If the above measures are implemented, it is predicted that the Project would have an impact of **low significance** (i.e. unlikely to occur, with minor magnitude) on community function.

7.4 Impact monitoring and management

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

Environmental management plans applicable to both the construction and operation of the Project would be developed and would provide a framework for social impact management and monitoring. The management plans would provide a mechanism to manage social issues identified by the SIA and nominated in **Section 7.3** relating to:

- Biosecurity and health and wellbeing;
- Radioactive material and health and wellbeing;
- Project related traffic;
- Dust generated by the Project;
- Noise and vibration generated by the Project; and
- Community cohesion and trust.

In addition to the environmental management plans, the Landholder Relations Plan recommended for the Project would provide 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 RZ Resources and any technical monitoring outcomes.

In terms of mitigation and monitoring of the groundwater conditions explicit in landholder sentiment gathered during the SIA consultation activities, a Water Management Plan (WMP) would be prepared prior to mining commencement, outlining groundwater monitoring and management measures. The WMP would include Trigger Action Response Plans (TARPs) and the site water management system. Various monitoring programs would be implemented to assess groundwater levels, quality, and model predictions. Regular reviews and reporting will ensure compliance with regulatory requirements. TARPs will be prepared for groundwater levels and water quality, with abnormal results re-tested and assessed for potential impacts.

Project related traffic management would be addressed in a Construction Traffic Management Plan, Operational Traffic Management Plan, and Transport Management Plan which will be developed in consultation with Transport for TfNSW. These plans would align with the safety expectations of landholders (noting concerns about the presence of children near the haul route) and road users.

7.5 Social impact summary and conclusion

The Project is forecast to yield several positive and negative impacts for the social locality if it proceeds, and these are summarised in **Table 7-2.** In terms of community, RZ Resources has demonstrated a commitment to community investment, including donations to local infrastructure like the pavilion and grants for research projects on rare species benefiting the community. Additionally, commitments to supply gravel for local road development and create economic opportunities through job creation and income security during and after the Project's operation are expected to positively impact the social locality.

Accessibility may improve in the social locality with the design and registration of an RFDS airstrip on the Project site, enhancing access to emergency services infrastructure, particularly in rural Wentworth LGA landholdings where such services are scarce. This increase in medical service accessibility has the potential to positively influence the community's well-being in the event of emergency incidents.

In terms of culture and employment of Aboriginal people, the Project offers opportunities for potential traineeships and employment across a variety of mining roles, which could include mining operations, site supervision, and post-mining rehabilitation. Commitments made by RZ Resources to consult with First Nations groups and implement an Aboriginal Heritage Management Plan suggest company is motivated to support Aboriginal employment and culture. This potential positive impact for First Nations people in the social locality would be enhanced if RZ Resources develops and prescribes to the Project Aboriginal Employment Policy.

Livelihoods stand to benefit from the Project's economic opportunities, including employment, training, and contracting for local landholders and community members. Lease agreements and job creation during construction and operation phases are expected to provide significant economic benefits, fostering job security and prosperity within the community. Overall, the Project is anticipated to have a high significance impact on livelihood, promoting economic growth and well-being in the social locality.

Regarding health and wellbeing, concerns over biosecurity risks related to mining equipment were raised by stakeholders, highlighting potential impacts to farming operations. Additionally, worries about radioactive material extraction and processing pose health risks, although measures are proposed to mitigate these effects. Road safety is another significant concern, particularly for children living near haul routes, emphasising the need for traffic management plans. Anxiety and personal safety issues among landholders due to past conflicts further compound health and wellbeing challenges.

In terms of surroundings, dust disturbance from haulage activities is anticipated, potentially impacting vegetation and water supply. Light spill and noise from mining operations could also affect nearby residents' amenity, although assessments suggest compliance with noise standards.

Accessibility to essential services such as emergency and medical services may be compromised, especially in areas with poor mobile reception, raising concerns about response capabilities in emergencies.

Livelihoods could be negatively impacted by restricted access to water and disruptions to farming operations, affecting crop and livestock sustainability. Additionally, concerns about property devaluation and revenue reduction highlight economic uncertainties for landholders.

Overall, while the Project has the potential to bring significant benefits to the community, including economic growth, improved infrastructure, and cultural engagement, careful consideration of potential negative impacts and proactive measures to address them in (refer **Table 7-2**) are crucial for ensuring socially sustainable and equitable development.

Table 7-2 – Social impact summary

Impact to people	Social impact category	Affected parties	Likelihood and magnitude of impact	Impact significance rating (non-enhanced/ unmitigated)	Project aspect	Project-specific enhancement / mitigation measures	Likelihood and magnitude of impact	Residual impact significance
Predicted positive impacts								
Financial investment to community programs and initiatives in the social locality	Community (Community cohesion)	Wentworth residents, businesses and community groups	likely / moderate	high	construction and operation	none suggested	likely / moderate	high
Improved access to emergency services by introducing an additional RFDS strip in a rural setting that's available for public use	Accessibility (Services)	Residents in remote areas	likely / minor	medium	construction and operation	none suggested	likely / minor	medium
Employment opportunity for Aboriginal people	Cultural (Employment of Aboriginal people)	Individual Aboriginal people LALCs	likely / moderate	high	construction, operation and rehabilitation	Developing a dedicated Aboriginal employment policy and supporting strategy	likely / moderate	high
Maintained revenue for suppliers, and income for individuals and families employed by the Project. Also increased	Livelihood (People's capacity to sustain themselves – business and employment)	Project employees residing in the social locality Wentworth property owners	almost certain / major	very high	construction and operation	Developing a dedicated local business strategy or a formal procurement policy aimed at prioritising local business owners	almost certain / major	very high

Impact to people	Social impact category	Affected parties	Likelihood and magnitude of impact	Impact significance rating (non-enhanced/ unmitigated)	Project aspect	Project-specific enhancement / mitigation measures	Likelihood and magnitude of impact	Residual impact significance
equity for property owners								
Predicted negative impacts								
Safety and biosecurity concerns from importation of pathogens to farming operations	Health and wellbeing (Biosecurity)	Landholders Businesses owners	possible / moderate	medium	construction and operation	Dedicated perimeter fencing, more stringent mine induction and access procedures applied.	unlikely / moderate	low
Extraction and processing of radioactive material	Health and wellbeing (Radioactive material)	Landholder Businesses owners Residents of Wentworth and Broken Hill	possible/ moderate	medium	operations	Implement measures in Radiation Assessment (RZ Resources, 2024)	very unlikely/moderate	low
Road safety for children related to increased heavy vehicle traffic	Health and wellbeing (Road safety)	Landholders Residents on haul route	possible/ moderate	medium	construction and operation	Heavy vehicle driver inductions and code of conduct.	unlikely / moderate	medium
Anxiety and personal safety concerns of landholder and the children related to the Project	Health and wellbeing (Personal safety)	Landholder	possible/ moderate	medium	construction and operation	Provide assurances to protect the current conditions relating to livestock fodder adjacent the mine site and potable water supply for fence line neighbours.	very unlikely / moderate	low
Dust generated by project operations and the movement	Surroundings (Dust)	Landholders	possible / moderate	medium	operation	Dust impacts would be mitigated via the measures	unlikely / minor	low

Impact to people	Social impact category	Affected parties	Likelihood and magnitude of impact	Impact significance rating (non-enhanced/ unmitigated)	Project aspect	Project-specific enhancement / mitigation measures	Likelihood and magnitude of impact	Residual impact significance
of heavy vehicles on unsealed roads which could be used by Project vehicles		Residents on haul route				described by Northstar Air Quality (2024). Regularly (e.g., quarterly) volunteer monitoring results to concerned stakeholders.		
Noise and light impacts during Project construction and operations	Surroundings (Noise and vibration)	Sensitive receivers	possible / moderate	medium	operation	Implement measures in NVIA (refer Muller Acoustic Consulting, 2024)	unlikely / minor	low
A perception that medical services in Wentworth would be less accessible due to the increase of workers in a poor reception area	Accessibility (Medical Services)	Residents in Wentworth	unlikely / minimal	low	operation	none suggested	unlikely / minimal	low
Reduced farm workability and access to water as a result of the Project	Livelihoods (Farming operations)	Landholder surrounding the Project	possible/ moderate	medium	construction and operation	Compensation agreement	unlikely / minor	low
Reduced community cohesion and trust resulting from	Community (Trust)	Landholder surrounding the Project	likely/ minor	medium	construction and operation	Development of a Landholder Relations Plan along with a robust landholder communications and engagement strategy.	possible / minor	medium

Impact to people	Social impact category	Affected parties	Likelihood and magnitude of impact	Impact significance rating (non-enhanced/ unmitigated)	Project aspect	Project-specific enhancement / mitigation measures	Likelihood and magnitude of impact	Residual impact significance
Increased surge in housing demand related to out of region workforce migration.	Community function (housing)	Residents of Wentworth	possible/ moderate	medium	operation	Prioritise employment of local residents to project and Proponent purchased housing.	unlikely / minor	low

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APPENDIX A – SOCIAL IMPACT CATEGORIES

Linear projects

Linear projects such as rail lines, roadways or utility services are typically narrow but long, like that illustrated in **Figure 7**. Analysis should consider the broader area as well as key precincts or areas that will experience a higher level of impact. Surveys of people in a wider region may inform an understanding of their ways of life and livelihoods (e.g. travel times and employment) and present a broad representation across a larger social locality.

4.3 Categorising impacts

Use the following categories to identify likely social impacts:

- **way of life**, including how people live, how they get around, how they work, how they play, and how they interact each day
- **community**, including composition, cohesion, character, how the community functions, resilience, and people's sense of place
- **accessibility**, including how people access and use infrastructure, services and facilities, whether provided by a public, private, or not-for-profit organisation
- **culture**, both Aboriginal and non-Aboriginal, including shared beliefs, customs, practices, obligations, values and stories, and connections to Country, land, waterways, places and buildings
- **health and wellbeing**, including 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**, including ecosystem services such as shade, pollution control, erosion control, public safety and security, access to and use of the natural and built environment, and aesthetic value and amenity
- **livelihoods**, including 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.

Some projects may have impacts in all these categories, but others may only have a few. For example, an influx of workers could affect both 'way of life' and 'community'. Neatly categorising impacts is not as important as identifying and assessing them. The categories simply provide prompts to consider possible social impacts.

Consider how benefits and impacts are distributed differently between different social groups, and each group's capacity to respond to these. This includes impacts on Aboriginal communities, with consideration of livelihood and wellbeing of Aboriginal communities as well as cultural impacts. Depending on the project, it may be necessary to consider and assess reasonable and justified fears and concerns held by the community in relation to any of the above categories. The focus should be on their logical basis, not merely their number.

When assessing the nature and scale of social impacts, consider the project's:

- location, including whether it will be densely or sparsely populated, or whether it will be contained within one council boundary or several
- layout and design (e.g. whether it will be linear or contained within a discrete site)
- social locality
- proposed construction and operation methods, and expected duration of each method
- local and regional context including dependency on or proximity to other State significant projects or other forms of industry.

APPENDIX B – SCOPING WORKSHEET

Social Impact Assessment (SIA) Worksheet | Project name: | Date:

PROJECT ACTIVITIES	CATEGORIES OF SOCIAL IMPACTS	POTENTIAL IMPACTS ON PEOPLE		PREVIOUS INVESTIGATION OF IMPACT		CUMULATIVE IMPACTS		ELEMENTS OF IMPACTS - Based on preliminary investigation					ASSESSMENT LEVEL FOR EACH IMPACT				SIA METHODS	PROJECT REFINEMENT	MITIGATION / ENHANCEMENT MEASURES
Which project activity / activities would produce social impacts?	what social impact categories would be affected by the project activities	What impacts are likely, and what concerns/aspirations have people expressed about the impact? Summarise how each relevant stakeholder group might experience the impact. NB. Where there are multiple stakeholder groups affected differently by an impact, or more than one impact from the activity, please add an additional row.	Is the impact expected to be positive or negative	Has this impact previously been investigated (on this or other project(s))?	If "yes - this project," briefly describe the previous investigation. If "yes - other project," identify the other project and investigation	Will this impact combine with others from this project (think about when and where), and/or with impacts from other projects (cumulative)?	If yes, identify which other impacts and/or projects	Will the project activity (without mitigation or enhancement) cause a material social impact in terms of its: You can also consider the various magnitude of these characteristics. extent i.e. number of people potentially affected?	duration of expected impacts? (i.e. construction vs. operational phase)	intensity of expected impacts (i.e. scale or degree of change)?	sensitivity or vulnerability of people potentially affected?	level of concern/interest of people potentially affected?	Level of assessment for each social impact	What methods and data sources will be used to investigate this impact? Secondary data	Primary Data Consultation	Primary Data Research	What methods will be used to investigate this impact?	Has the project been refined in response to preliminary impact evaluation or stakeholder feedback?	What mitigation / enhancement measures are being considered?
Haul Road design	decision making systems	The impact is about social impacts (eg. Surroundings, Health and Wellbeing) created by haul road design decisions.	Positive	Unknown		No	Not required	No	No	Yes	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research	Phone calls to landholders and liaising with client	yes	N/A
Employing local contractors	livelihoods	Previous contract for clearing works. Landholder contracted to manage neighbouring station owned by proponent and supply agreement for machinery providing employment opportunities to local contractors. Income for families.	Positive	Yes - other project	Current Broken Hill Cobalt Project. Investigations indicated economic contribution to the region by engaging local contractors and purchasing locally	Unknown		Yes	Yes	Unknown	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Community donations and investment (e.g. investing in the pavilion)	community	Potential positive impact to community through investment to the pavilion, and potential positive impact in providing $5k grant for 3 year research for PhD student to conduct research on rare Nulla grass.	Positive	Yes - other project	Broken Hill Cobalt Project. Investigation indicated opportunities for community enhancement.	Unknown		Yes	Yes	Yes	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Gravel exploration	community	Potential positive impacts to community through gravel supply to local council to further road development and financial compensation to landholders.	Positive	Unknown				Yes	Yes	Yes	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Rig maintenance and cleaning	health and wellbeing	Landholder expressed anxiety around perceived safety and biosecurity of rig and the frequency with which is cleaned.	Negative	Unknown		Unknown		No	Yes	Yes	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Heavy Vehicle Interface with the community on haul road	health and wellbeing	Landholder concerns with increasing traffic along road where young children play and live.	Negative	Yes - other project	Broken Hill Cobalt Project. Investigations surrounding traffic impacts.	No	Not required	Yes	Yes	Yes	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Haul road route and condition	surroundings	Concerns with dust and speed limits on Nulla Road haul route, concerned with health and safety issues related to speed limits and excess dust due to unsealed road.	Negative	Yes - other project	Broken Hill Cobalt Project. Investigation demonstrate dust level are in excess for maximum total deposited dust level.	Yes		Yes	Yes	Yes	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Mine near mobile blackspot	access	The influx of mine workforce would increase likelihood of injury/accidents in the area. Lack of mobile reception means there is a weak ability for medical assistance and this poses a negative health/wellbeing impact.	Negative	No		No	Not required	Yes	Yes	Unknown	No	No	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Constructing RFDS Strip	access	Design and registration of RFDS strip located within community will positively influence access impacts to emergency services to an underserviced community.	Positive	Unknown				Yes	Yes	Yes	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Mine operations	health and wellbeing	Potential impacts to landholders health and wellbeing when mine is operational relating to light, noise and traffic impacts.	Negative	Yes - other project	Hawsons Iron Ore Project. Investigation into increased noise from construction, drilling and blasting operations.	No	Not required	No	Yes	Unknown	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Drilling near landholder dam	livelihoods	Potential impact to water storage which would affect crop and sheep farming.	Negative	Yes - other project	Current Broken Hill Cobalt Project. Investigations into altered land uses, supply of water for live stock and physical access.	No	Not required	Unknown	Unknown	Unknown	Unknown	Unknown	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Haul route	livelihoods	Concerns around potential livelihood impacts resulting from sheep being hit by cars on Rementh/Nulla Rd/Springwood.	Negative	Yes - other project	Broken Hill Cobalt and Hawsons Iron Ore Projects. Investigation into impacts surrounding management of livestock movement and fencing requirements.	Unknown		Yes	Yes	Yes	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			
Mining operations (Aboriginal labour)	culture	Potential impacts to livelihood through Aboriginal employment by way of apprenticeships, seed collection etc.	Positive	Yes - other project	Broken Hill Cobalt Project. Investigation indicated economic advancement for Aboriginal Community including training, education and access to employment	Yes		Unknown	Yes	Unknown	Yes	Yes	Detailed assessment of the impact	Required	Broad consultation	Targeted research			

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