



Section 2

Strategic Context

PREAMBLE

This section identifies the key strategic issues that are relevant to the assessment Project, including a review of:

- *strategic support and justification provided by key government strategies policies and plans;*
 - *key features of the Mine Site and surrounds;*
 - *potential cumulative impacts;*
 - *existing and proposed agreements; and*
 - *feasible alternatives considered and rejected.*
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2.1 Strategic Support and Project Justification

2.1.1 Introduction

The Commonwealth and NSW Governments have published a range of planning documents that collectively provide the basis for each government's strategic planning. Central to many of these documents is the recognition that declines in biodiversity, climate change and supply of critical minerals are key challenges for Australia and NSW. Furthermore, an important consideration for each level of government is the fact that mining and other large-scale infrastructure, agriculture and transport industries provide essential employment and economic activity for regional areas and that each of these industries must be developed in a manner that supports the communities and environment within which those industries operate.

Similarly, local planning documents provide important context and finer detail than State and Federal strategic policies and frameworks.

Strategies, policies and plans that are relevant to the Project and a brief description of how each provides strategic support to the Project are outlined in the following subsections.

2.1.2 Commonwealth Strategies, Policies and Plans

2.1.2.1 *Threatened Species Action Plan*

The *Threatened Species Action Plan 2022-2032* maps a pathway to protect, manage and restore Australia's threatened species and important natural places. The objectives of the Plan are as follows.

- The risk of extinction is reduced for all priority species.
- The condition is improved for all priority places.
- New extinctions are prevented.
- At least 30 per cent of Australia's land mass is protected and conserved.

The Action Plan identifies the following eight action areas.

- Mitigating established and emerging threats.
- Conserving, restoring and improving habitat.
- Emergency preparedness and response.
- Climate change adaptation and resilience.
- Effective planning for conservation.
- Knowledge and tools, namely collection and management of data by the Commonwealth.
- Forging stronger partnerships.
- Community leadership and engagement.



At a strategic level, the Project supports the objectives and identified action areas from the Action Plan as follows.

- A detailed biodiversity assessment has been prepared in accordance with the relevant NSW guidelines (see Section 6.3) and the Project has been designed to avoid and mitigate impacts to Commonwealth-listed and other threatened species and communities. Additional, offset requirements have been identified to offset those residual impacts that cannot be avoided.
- The Project would result in establishment of one or more Biodiversity Stewardship Areas that would increase the area of protected land within Australia.
- The Project would also contribute to combating climate change through the provision of critical minerals that are essential to the development and manufacture of low carbon technology as well as committing to using a minimum of 30% renewable energy as part of the Project's energy strategy.

Finally, the Project has been determined as being unlikely to impact on Matters of National Environmental Significance under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (see Section 6.3.7.6).

2.1.2.2 Climate Change Act 2022

The Commonwealth *Climate Change Act 2022* was assented to on 13 September 2022. The Act seeks to legislate Australia's greenhouse gas emissions reduction target of:

- 43% below 2005 levels by 2030; and
- net zero emissions by 2050.

The Project would contribute to these targets as follows.

- By providing critical minerals that are essential to the development and manufacture of low carbon technology.
- By committing at the outset to connect the Project to the national electricity grid and to source a minimum of 30% of the Project's electricity from renewable sources, with a commitment to increase the proportion of renewable power and investigate other measures to reduce greenhouse gas emissions in line with State and Federal reduction targets.
- By committing to regularly review the Project's greenhouse gas emissions and install or purchase additional renewable generation and energy storage capacity as technology develops and economic circumstances change.



2.1.2.3 Critical Minerals Strategy 2023 to 2030

The *Critical Minerals Strategy 2023 to 2030* (updated 7 July 2023) seeks to grow Australia's critical minerals sector, expand downstream processing and help meet future global demand. In particular, the Strategy's objectives are to:

- create diverse, resilient and sustainable supply chains through strong and secure international partnerships;
- build sovereign capability in critical minerals processing;
- use our critical minerals to help Australia become a renewable energy superpower; and
- extract more value from our resources onshore, which creates jobs and economic opportunities, including for regional and First Nations communities.

The Project would materially support each of these objectives by:

- providing a new, long-life, stable, domestic supply of titanium, zirconium and rare earth minerals in partnership with domestic and international partners;
- providing for further processing of the non-magnetic concentrate at the Applicant's Pinkenba Mineral Separation Plant;
- generating approximately 480 fulltime equivalent (FTE) positions during construction and 240 FTE during operations, including for locally-based and first nations persons; and
- supporting the economy of the Wentworth Local Government Area and surrounds through employment of local residents and purchase of goods and services.

2.1.3 NSW Strategies, Policies and Plans

2.1.3.1 Economic Development Strategy for Regional NSW

The *Economic Development Strategy for Regional NSW* (the Strategy), published in 2015, provides a framework to drive economic growth in regional NSW. The Strategy covers all of regional NSW, encompassing all industries and sectors within the State, with mining highlighted as one of the key drivers of economic growth. The Strategy identifies five high level goals encompassing twenty-three actions for Governments. The following identifies how the Project is consistent with the relevant goals and actions of the Strategy.

Goal 1 – Promote key regional sectors and regional competitiveness

The Strategy highlights the mining industry as one of the top three contributors to Gross Regional Product, alongside manufacturing, healthcare and social assistance. The Project would be consistent with the following action to achieve Goal 1.

- Action 1.2 – Increase the value of NSW's mineral industry and the energy sector.
The Project would help to increase the value of NSW mineral industry through the continued delivery of critical minerals as well as the continued support, utilisation and development of the supporting industries.



Goal 2 – Drive regional employment and regional business growth

Regional employment and business growth is highlighted as a key goal of the Strategy. The Strategy states that increasing the regional skill base as a means to offset the effects of population decline in regional NSW is a key priority; in particular, the development of youth actions.

- Action 2.1 – Promote regional job creation.

During operations, the Project would directly create and retain approximately 240 regionally based jobs.

- Action 2.4 – Increase regional skills base.

The Project would require a wide range of skilled workers. To ensure that these workers are available in the local community over the extended life of the Project, the Applicant would support school-based apprenticeships and traineeships as well as providing other internal and external training opportunities. The Applicant would encourage older workers and other residents of the Wentworth LGA to retrain and gain additional skills.

- Action 2.5 – Improve Aboriginal employment and business outcomes.

The Applicant has actively engaged with the local Aboriginal community and would continue to do so to provide employment and business opportunities for Aboriginal people who make up approximately 8.3% of people living in the Wentworth LGA, a far higher proportion than occurs elsewhere in NSW.

2.1.3.2 20-Year Economic Vision for Regional NSW

The updated *20-Year Economic Vision for Regional NSW* (the Vision) published in February 2021, aims to drive sustainable, long-term economic growth and unlock the significant economic potential of regional NSW. The Vision aims to add 180,000 residents and 64,000 jobs to regional areas in NSW over the next 20 years. Mining is identified as one of the seven “engines” of the regional NSW economy. The Vision describes several priority actions for regional economic development. The following identifies how the Project is consistent with these priority actions.

Principle 3 – Freight networks that will increase the competitiveness of key regional sectors

The Project would result in construction of the Site Access Road and substantial upgrading of a section of Anabranche Mail Road and intersections on an existing heavy vehicle route through Broken Hill. The former would improve access to the Silver City Highway for a limited number of local residents. The latter would result in improved performance and safety of key intersections, providing benefits to both the wider transportation industry, as well as for residents living in and around the intersections. The Project would also increase demand for and support regional rail services, thereby ensuring that those services remain viable and available for other users and industries.



Principle 5 – A skilled labour force for current and future needs of the regions

The Project would enable the Applicant to continue and substantially expand its employment and training of regionally based employees and potential employees, including young and First Nations people.

Principle 8 – Sustainable economies and communities are better able to recover from shocks

The Project would result in development of a major mineral sands mining operation that would replace the existing mineral sands mining operations, Tronox's Snapper and Gingko operations as they transition to mine closure, currently scheduled for 2025 and 2026. This would assist to minimise economic and social shocks arising from loss of a major employer in the Wentworth LGA.

2.1.3.3 NSW State Infrastructure Strategy 2022-2042

The *NSW State Infrastructure Strategy 2022-2042* (Infrastructure Strategy) outlines the policies and strategies required to meet infrastructure need of the growing population of NSW. The Infrastructure Strategy recognises that roads are the dominant carrier of freight and construction materials. Enhancing productivity by investing in infrastructure is a key action outlined in the Strategy. The Infrastructure Strategy identifies 9 key objectives. The Project would contribute to the following objectives.

Boost economy-wide productivity and competitiveness

- Recommendation 6 – Plan and deliver projects to increase the efficiency and reliability of freight networks in regional NSW.

The Project would result in improved productivity and safety of the freight network through upgrades to key intersections on the heavy vehicle route through Broken Hill. The Project would also increase demand for and support regional rail services, thereby ensuring that those services remain viable and available for other users and industries.

Plan and deliver projects to increase the efficiency and reliability of freight networks in regional NSW

- Recommendation 54 – Utilise all viable commercial models and approaches to enable additional opportunities for private sector investment in infrastructure.

The Applicant would fund proposed road and intersection upgrades which would result in ongoing augmentation and improvement of the public road network. The Applicant would also seek approval to operate Type 2 road trains on the Silver City Highway, thereby increasing the efficiency of freight transportation for the Project and other users.

Finally, Tonkin (2024) (see Section 6.6) determined that the Project would not have an adverse impact on the operation of the Silver City Highway and that the proposed use of the Highway is consistent with the intended use of the State highway network, namely, to permit the movement of heavy vehicles to support business and the people of NSW.



2.1.3.4 Far West Regional Plan 2036

The *Far West Regional Plan 2036* (2036 Regional Plan) was prepared by the NSW State Government to provide an overarching framework to guide more detailed land use plans, development Projects and infrastructure funding decisions within the Far West Region. The 2036 Regional Plan was released in August 2017. See also Section 2.1.3.4 which discussed the *Draft Far West Regional Plan 2041*.

The strategic goals outlined in the 2036 Regional Plan are as follows.

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

The 2036 Regional Plan states that the economy of the region is diversified and recognises the contribution of a sustainable mining sector that generates direct employment and provides flow-on benefits to communities. The Regional Plan also predicts that new revenue streams from mining operations in the Broken Hill, Balranald and Wentworth LGAs will increase local employment and economic output. One of the directions the Regional Plan describes to achieve the goal of a diverse economy is to sustainably manage mineral resources and the document identifies actions to consider and balance the various benefits and impacts of mining for communities to produce long-term sustainable economic, social and environmental outcomes. The Regional Plan particularly prioritises the capture of economic benefits from mining and establishing new mining operations in areas of mineral potential in the region's south, which includes the Wentworth LGA.

The Regional Plan proposes that the goal of exceptional semi-arid rangelands can be achieved in part through the direction of protecting and managing environmental assets and emphasises the importance of protecting ecosystems from the impacts of development through appropriate management and mitigation mechanisms.

The Project would assist the Region to achieve its goals in relation to economic opportunities, especially given the significant investment and ongoing employment opportunities that it would bring to the region. The Applicant, through its commitment to appropriately manage the environmental aspects of the Project and employ and source goods and services locally, would ensure that the economic goals of the 2036 Regional Plan are achieved to the maximum extent practicable.

Similarly, the Project would assist the Region to achieve its goals in relation to exceptional semi-arid rangelands through rehabilitation of the Project Site to achieve land capabilities similar to those that existed pre-mining and to establish sustainable final landforms and vegetation communities.

2.1.3.5 Draft Far West Regional Plan 2041

The draft *Far West Regional Plan 2041* (Draft Regional Plan) was released in September 2022 and provides an update on the NSW Government's priorities for the Far West Region. The Draft Regional Plan includes 16 objectives. The Project would be consistent with or assist in the successful implementation of the following objectives.



Objective 1 – Protect, connect and enhance biodiversity throughout the region

The Applicant has, to the extent practicable, sought to avoid and minimise impacts on biodiversity. Unavoidable direct impacts would include approximately 5,772ha of native vegetation. The Applicant would progressively rehabilitate mined land throughout the life of the Project and would remove all infrastructure not required at the end of the Project life and rehabilitate all remaining disturbed land. The Applicant would also establish one or more Stewardship Sites that would provide additional protection and connectivity with a fragile and degraded landscape. Finally, the Applicant would fund research and restoration projects for the listed *Austrostipa nullanulla*.

Objective 2 – Protect and enhance culture and heritage

The Project would wholly or partially disturb 66 sites of Aboriginal heritage significance. However, identified management of sites to be disturbed has been discussed with the local Aboriginal community and in addition to the “standard” management measures, the Applicant would also implement the following.

- Avoidance of a scarred tree and associated artefact scatter associated with site Copi OS-01.
- Investigation and dating of three hearths to further scientific understanding of Aboriginal occupation of the Far West Region.

Objective 7 – Create a network of centres for the dispersed population

This objective requires decision makers to consider freight transportation and leveraging economic opportunities to create benefits for the community. The Project would result in upgrades to Anabranth Mail Road and upgrading of two intersections in Broken Hill that do not meet the design requirements for the vehicles currently using them. In addition, the Project would create substantial employment and economic benefits at a time when other similar projects are reaching the end of their known lives.

Objective 9 – Facilitate accommodation options for seasonal, temporary and key workers

This objective requires development applications for large-scale projects to be supported by a workforce accommodation strategy. The Project would preferentially recruit residents of the Wentworth LGA, but those workers would be accommodated on site in the proposed Mine Camp. The Applicant anticipates that many of the workers currently engaged with comparable mining projects in the Wentworth LGA that are nearing the end of their known lives would be able to transition their employment and skills to the Project, with no change in the demand for housing within the LGA. In addition, the Applicant has identified that at the 2021 Census there were 484 unoccupied private dwellings in the Wentworth LGA and 2,125 unoccupied private dwellings in the adjacent Mildura Rural City LGA. This substantial stock of unoccupied dwellings would likely mean that any Project-related demand for housing would not adversely impact on housing availability for existing or future residents. In addition, as a drive-in/drive out operation, the Project would be able to draw workers from further afield, thereby providing the Applicant with the opportunity to manage housing availability within the Wentworth LGA.



Objective 10 – Plan for connected cross-border communities

The Project would rely on workers and businesses located within the Wentworth LGA. However, as the principal population and service centre of the region, namely Mildura and surrounding areas would also support and benefit from the Project.

Objective 12 – Protect rural and mining industries

This objective recognises the importance of the mining industry for the Far West Region, including the following.

“The Far West has a significant share of the emerging critical minerals market which will shape new mining, processing and manufacturing opportunities. It is identified as one of the strategic locations underpinning NSW’s Critical Minerals and High-tech Metals Strategy.”

Particular strategies relevant to the Project include the following.

- “promoting opportunities for minerals processing within the region.
- addressing water resource constraints and impacts.
- identifying future mine closure dates, understanding potential changes to water, economic/skill profiles and demographics, and considering land use changes, mine rehabilitation activities and post-mining land use opportunities”

The Project would be another long-life critical minerals project within the Region, with all the benefits that that would entail, particularly considering the imminent closure of other operations within the Wentworth LGA.

Objective 13 – Protect and develop industry and manufacturing

The Applicant would preferentially source materials, equipment and services from within the Wentworth LGA and surrounding areas, including those in the Mildura Rural City LGA, thereby supporting the local industry and manufacturing.

Objective 14 – Protect and leverage existing and future road, rail and air transport routes and infrastructure

The Project would result in upgrades and improvements to Anabranth Mail Road and several intersections within Broken Hill, as well as utilising the existing Rail Facility and regional rail lines for transportation of mine products.

Objective 15 – Support the transition to net zero by 2050

The Project would produce a range of critical minerals that would provide key inputs to products required to achieve NSW’s stated objective of achieving net zero emissions by 2050. In addition, the Project would source a minimum of 30% of its electricity from renewable sources, with a view to increasing the proportion of renewable energy over the life of the Project.



2.1.3.6 Western Murray Regional Economic Development Strategy 2023 Update

The *Western Murray Regional Economic Development Strategy – 2023 Update* (the Western Murray Strategy) identifies economic development opportunities that capitalise on the endowments and industry specialisations of the Western Murray Region, which includes the Wentworth, Balranald, Hay LGAs in NSW and the Mildura Rural City and Swan Hill Rural City LGAs in Victoria. The Western Murray Strategy’s four elements as follows.

- “Drive growth in high-value agriculture and value adding in agricultural product manufacturing.
- Recognise the role of the visitor economy in developing a more resilient and diverse economy.
- Grow the mining and construction industries to capitalise on the Region’s renewable energy generation, storage and transmission opportunities.
- Leverage cross border and training accessibility to diversify and grow key industries.”

The Project would be consistent with the third element. In particular, the Project would represent a new long-life mining project that would generate substantial employment and economic activity for a minimum of 24 years. The Project would also support regional infrastructure, including upgrades to the Silver City Highway and transportation routes in Broken Hill, regional rail infrastructure and the 220kV Buronga to Broken Hill Transmission Line.

2.1.3.7 Climate Change Policy Framework

The NSW *Climate Change Policy Framework* published in 2016:

- defines the NSW Government’s role in reducing carbon emissions and adapting to the impacts of climate change;
- sets policy directions to guide implementation of the framework;
- commits NSW to achieving aspirational long-term objectives of net-zero emissions by 2050 and to help NSW become more resilient to a changing climate; and
- sets out next steps for implementation.

The *Climate Change Policy Framework* is supported by the NSW *Net Zero Plan Stage 1: 2020–2030* (Net Zero Plan) published in March 2020. The Net Zero Plan identifies four priorities as follows.

1. Drive uptake of proven emissions reduction technologies.
2. Empower consumers and businesses to make sustainable choices.
3. Invest in the next wave of emissions reduction innovation.
4. Ensure the NSW Government leads by example.



The Project is consistent with Priorities 1 to 3 as follows and provides the NSW Government with the opportunity to demonstrate a commitment to Priority 4.

- The Project would rely primarily on energy efficient, grid connected electrical-powered dredging and processing methods to extract, process and place interburden, ore and reject.
- The Applicant would ensure that initially a minimum of 30% of the electricity used for the Project would be sourced from renewable sources. Following commencement, the Applicant would progressively review and implement lower emissions intensive technologies and would seek to increase the proportion of electricity sourced from renewable sources in line with the targets identified in the *Climate Change (Net Zero Future) Act 2023* and State and Federal commitments in relation to emissions reduction targets.
- Mine products would be transported from the Mine Site to Broken Hill, the closest access point to the rail network, using the largest, most efficient vehicles possible. From there, the mine products would be transported using the rail and road network to the Applicant's Pinkenba Mineral Separation Plant or to port. As a result, the Project would utilise the most energy efficient transportation options available.
- The project would produce critical minerals that will be essential for the development of low emission technology.

2.1.3.8 Critical Minerals and High-tech Metals Strategy

The NSW *Critical Minerals and High-tech Metals Strategy* (Critical Minerals Strategy) outlines the NSW Government's vision to build on and position NSW as a major global supplier and processor of critical minerals and high-tech metals well into the future. The Critical Minerals Strategy identifies the importance of critical minerals for developing technologies and decarbonisation, with demand for these minerals expected to surge in the coming decades. Titanium, zircon and rare earth elements are all identified as critical minerals and the Project has been recognised as a Critical Minerals Project by both the NSW and Commonwealth Governments.

2.1.4 Local Planning Context

2.1.4.1 Wentworth LGA

Wentworth Shire Council Local Strategic Planning Statement

The Wentworth Shire Council *Local Strategic Planning Statement* was published by the NSW Government on 18 March 2020 and presents strategies for ensuring economic growth, social cohesion and environmental stability in the Wentworth LGA over the next 20 years and beyond. This statement identifies several planning priorities and actions to achieve these goals. The following identifies how the Project is consistent with the priorities and actions.

- Planning Priority 3 – manage resources and renewable energy.
The statement recognises that the Murray Basin is endowed with high value mineral sand deposits that have been historically underutilised. The statement also notes that these resources have the potential to grow both mining and construction



industries within the LGA. The Project would allow for utilisation of these identified resources, providing a significant contribution to the local economy through direct employment and flow-on benefits to the community.

Wentworth 2017-2027 Community Strategic Plan

The Wentworth Shire Council published the *2017-2027 Community Strategic Plan* in June 2017. The purpose of the Plan is to serve as the guiding document for the community, to provide a framework and direction for activities, programs and projects undertaken to work towards the vision set forth in the Plan. This vision is as follows.

“A thriving region, supported by a robust economic base, distinctive open spaces, and strong local governance and leadership.”

The Plan defines the community’s values, which are summarised as follows.

- Lifestyle – Space; country feel; climate; proximity to large rural centre and tristate location; religious and cultural diversity; semi-rural aspect.
- Natural environment – The meeting place of the Murray and Darling Rivers; the gateway to the outback; and proximity to Mungo National Park located within the Willandra Lakes Regional World Heritage Area.
- Amenity and aesthetics – Sporting facilities; public spaces; gardens; freedom and space; aged care facilities; access to educational facilities.
- Sense of history – River and paddle-steamer history; the stories of our people (Indigenous and non-Indigenous history); historic buildings and towns.
- Tourism – Places of historic significance; Indigenous history; the river and the outback.
- Community spirit and pride – Tidy towns; community events; community connectedness; friends and family.

The *2017-2027 Community Strategic Plan* identifies four objectives that outline the high-level approach to achieving the vision of the Plan. The objectives include the following.

- Objective 1 – Wentworth is a vibrant, growing and thriving shire.
- Objective 2 – Wentworth is a desirable Shire to visit, live, work and invest.
- Objective 3 – Wentworth is a community that works to enhance and protect its physical and natural assets.
- Objective 4 – Wentworth is a caring, supportive and inclusive community that is informed and engaged in its future.

The Plan presents a series of objectives for each of the community values identified, and outlines long-term strategies to achieve them, performance measures and potential partnerships, while the Council’s *Delivery Program* and *Operation Plan* set out shorter-term objectives and more detailed strategies.



While there are no strategies aimed specifically at mining, the Applicant contends that the Project would aid in Wentworth Shire Council (Council) achieving its economic and social objectives by providing investment, long term employment and training opportunities to the community of the Wentworth LGA.

Specific strategies identified in the *2017-2027 Community Strategic Plan* that would be supported by the Project, and how it would support these strategies; include the following.

- *Strategy 1.1 – Grow the potential for business and industry to develop and expand*
The Applicant would preferentially source goods and services from suppliers located in Wentworth and surrounding areas, thereby supporting local business and industry.
- *Strategy 1.2 – Encourage and support population growth and resident attraction*
The Project would employ personnel on a residential basis, thereby supporting and encouraging population growth and the benefits that that brings.
- *Strategy 2.4 – Enhance access to education and skills*
The Applicant would provide support to education and training through provision of traineeships, apprenticeships and other programs for residents of Wentworth and surrounds.

Wentworth Shire Development Control Plan 2011

The *Wentworth Shire Development Control Plan 2011* (Wentworth DCP) aims to provide both Council and the local community with a high degree of certainty that the future planning of the local government area will address the local community's current and future expectations. Clause 11 of the *State Environmental Planning Policy (State and Regional Development) 2011* states that Development Control Plans do not apply to State Significant Development. Notwithstanding this, this subsection provides an overview of relevant matters raised in the Plan and where those have been addressed in this document.

Whilst specific controls have not been identified for mining projects, the Wentworth DCP specifies that, for developments that are considered to have a significant impact on the natural environment, Council may, for development applications that it is consent authority for, require the preparation of an Environmental Management Plan that addresses a range of environmental issues. The Applicant has committed to preparing a range of such plans and anticipates that Council would be consulted, as appropriate, during preparation of those plans.

Table 2.1 presents relevant development controls identified in the Wentworth DCP and where they have been addressed in the EIS.

Table 2.1
Wentworth DCP – Development Controls

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DCP Section	Development Control	Section Where Addressed
Chapter 3 – General Development Controls		
3.4	Flood affected land	3.8 and 6.7
3.5	Vehicular access and parking	3.6 and 6.6



Table 2.1 (Cont'd)
Wentworth DCP – Development Controls

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DCP Section	Development Control	Section Where Addressed
Chapter 5 – Rural Development Controls		
5.7	Hazardous chemicals	6.11
Chapter 7 – Industrial Development Controls		
7.1.9	Noise and vibration	6.8
7.1.10	Air pollution	6.9
7.1.11	Water pollution	6.2 and 6.7

2.1.4.2 Broken Hill LGA

Broken Hill City Council Community Strategic Plan – “Your Broken Hill 2040”

The *Broken Hill City Council Community Strategic Plan* outlines the Broken Hill community’s main priorities and aspirations for the future and includes strategies for how they will be achieved. The Strategy identifies a range of objectives, with the following objectives being relevant for the Project.

- Objective 2.1.3 – Advocate for improved accessible transport and connectivity including air, road and rail services to and around the City.

The Project would result in improved heavy vehicle access through upgrading of two intersections on an identified heavy vehicle transport route.

Broken Hill Local Strategic Planning Statement 2020 - 2040

The *Broken Hill Local Strategic Planning Statement 2020 - 2040* seeks to translate the vision and priorities expressed in the following plans and policies into specific land-use actions.

- *Far West Regional Plan 2036*
- *Far West Regional Economic Development Strategy 2018-2022*
- *Broken Hill Community Strategic Plan 2033 - Your Hill. Your Home. Your Vision*
- *Broken Hill Local Environmental Plan 2013*
- *Broken Hill Development Control Plan 2016*

The following planning priorities are relevant to the Project.

- Mining Priority 3 – Continue to advocate for a heavy vehicle bypass for Broken Hill that connects all State highways and regional roads and removes heavy vehicle haulage from residential areas and other sensitive land-uses.

In the absence of a heavy vehicle bypass around Broken Hill, the Applicant has sought to minimise transport-related impacts associated with the Project through the use of the largest vehicles practicable, thereby reducing the number of vehicle movements, and by committing to upgrade four existing intersections on an identified heavy vehicle route that are currently not suitable for the vehicles using them.



2.2 Key Features

2.2.1 Local and Regional Community

Appendix 14 and **Appendix 15** present a detailed profile of the local and regional community and how the Project will impact the social and economic capacity of the community. These reports are also summarised in Sections 6.14 and 6.15 of this document.

2.2.2 Surrounding Land Uses

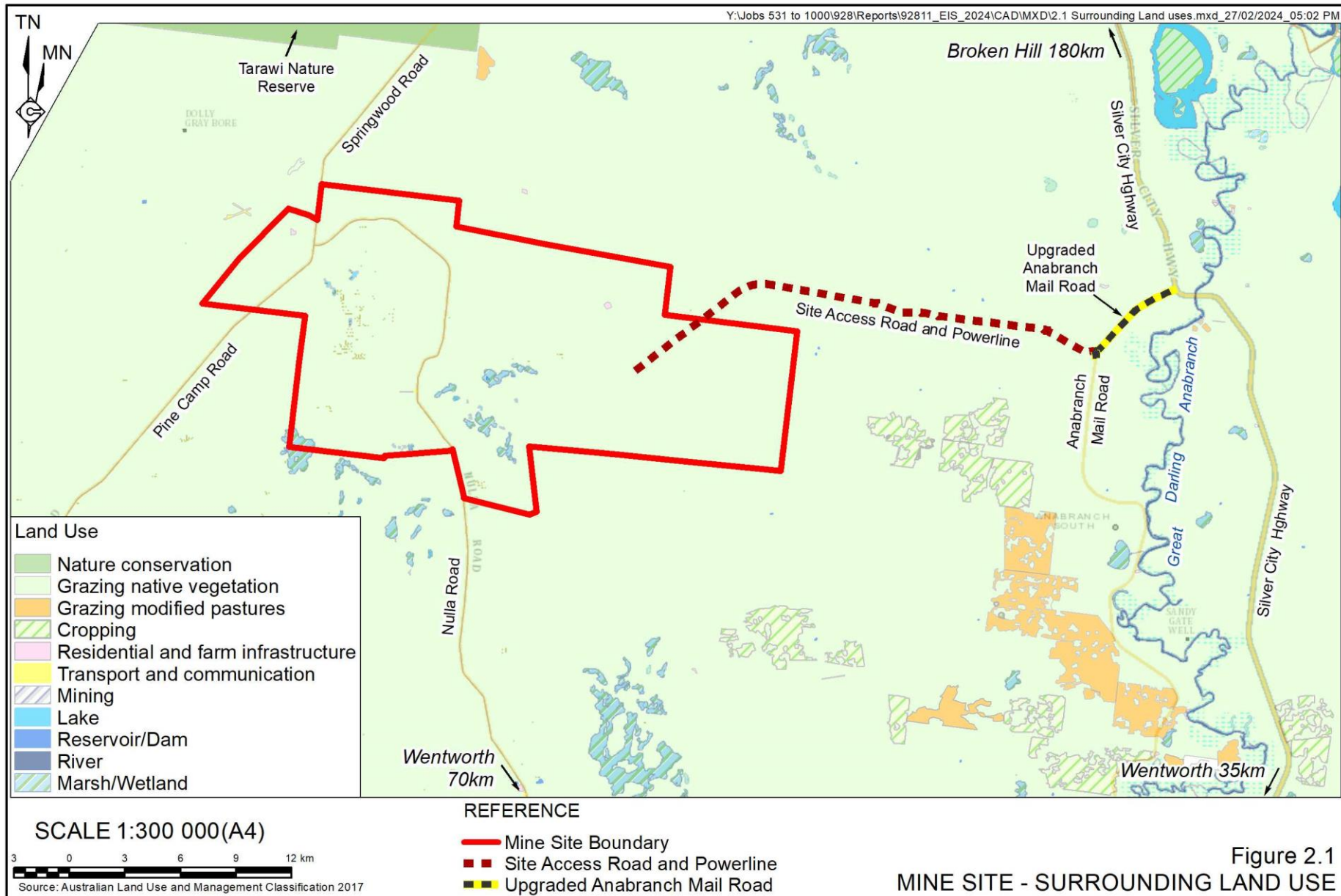
2.2.2.1 Mine Site

The Western Murray Region hosts a diverse variety of agricultural, mining and tourism industries. The Murray and Darling rivers support irrigated agriculture including horticultural and viticultural activities, citrus and nut production, broadacre cropping, meat and wool production and organic farming. The largest local centre in NSW is Wentworth which provides business, retail and cultural services to the area and has strong links with Mildura across the border in Victoria.

The Wentworth LGA includes the towns of Wentworth, Gol Gol, Buronga and Dareton which occur along the Murray River, and also the town of Pooncarie which is situated on the Darling River approximately 90km northeast of Wentworth. The Balranald LGA includes the towns of Balranald, located on the Murrumbidgee River, and Euston, located on the Murray River, along with a number of small localities.

Figure 2.1 presents the land uses surrounding the Mine Site including the following.

- Limited low intensity agriculture, primarily grazing of sheep and goats.
Grazing is generally undertaken intermittently and the Applicant understands that many landholders rotate stock between properties surrounding the Mine Site and properties located elsewhere. Harvesting of feral goats provides an important income source for many landholders, particularly during times of drought. A number of, but not all, rural properties also include rural residences or homesteads.
- Transportation
The Silver City Highway, located to the east of the Mine Site, is a sealed State Road that provides the primary transport link between Broken Hill and southwest NSW and western Victoria. Surrounding local roads, including Anabranch Mail, Springwood, Pine Camp and Nulla Roads are unsealed and variably maintained. These roads are invariably closed following rain, effectively isolating residents for extended periods.
- Nature conservation, namely the Tarawi Nature Reserve and Scotia Wildlife Sanctuary located approximately 10km and 22km to the north of the Mine Site.





2.2.2.2 Rail Facility and Transportation Route

Figures 2.2 and 2.3 presents the land uses surrounding the Rail Facility as well as the AB-triple road train routes through Broken Hill. In summary, these include the following.

- Residential/urban development located to the north, west and southwest of the Rail Facility and along the Transportation Route.
- Local retail development on Patton Street to the east of the intersection with Comstock Street.
- Mining activities, including the following.
 - The Southern Operations, North Mine and Potosi Mine, all operated by Perilya Broken Hill Limited.
 - The Rasp Mine, operated by CBH Resources Limited.
- Quarrying operations associated with Mawsons' Broken Hill Quarry.
- Transportation infrastructure, including the Barrier Highway, Broken Hill – Orange and Peterborough to Broken Hill Railways, Menindee Road and urban streets within Broken Hill. A range of mapped AB-triple Road Train Routes also occur within Broken Hill (Figure 2.3).
- Activities associated with the Willyama Common, including nature conservation and recreation.

2.2.3 Land Ownership

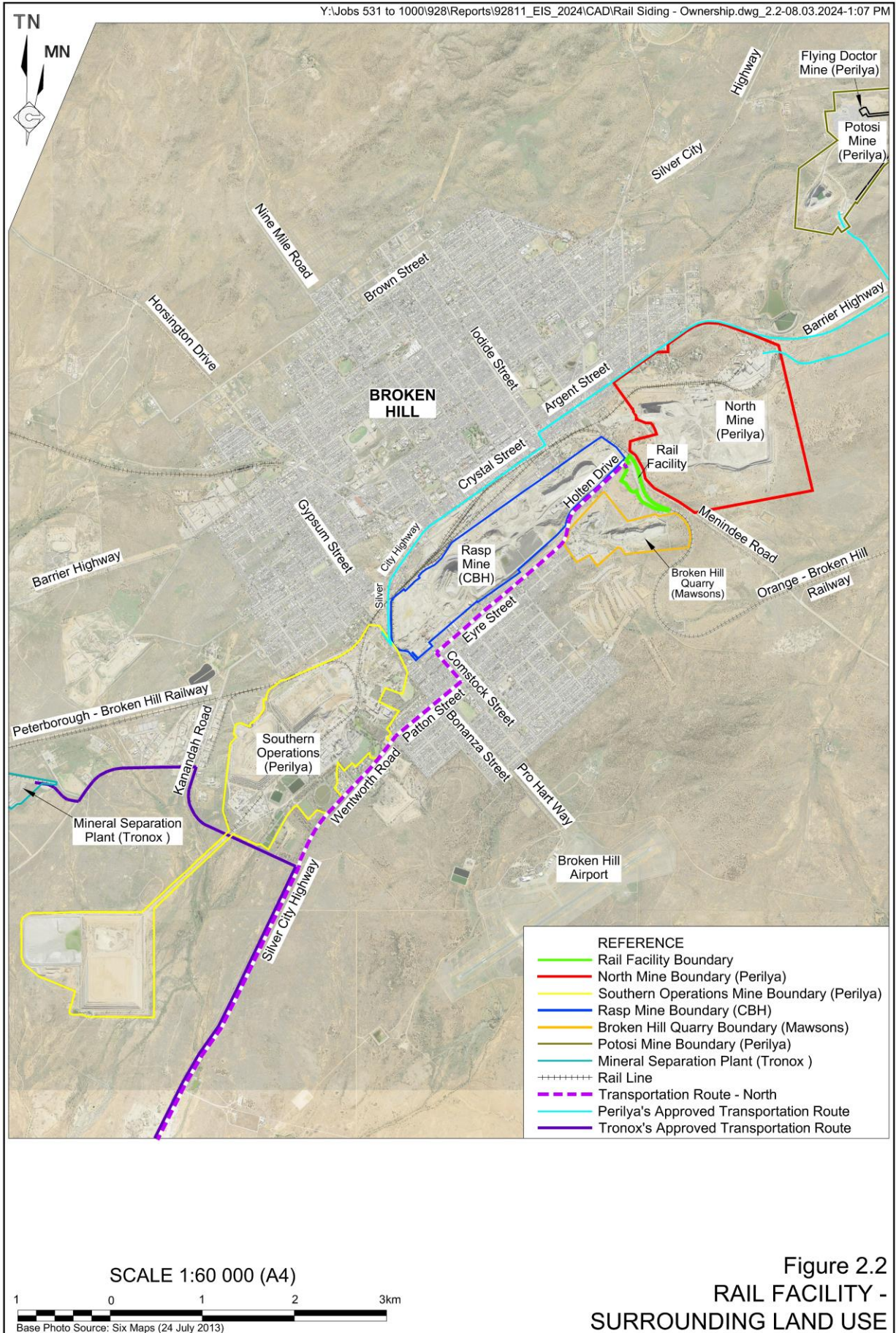
2.2.3.1 Mine Site

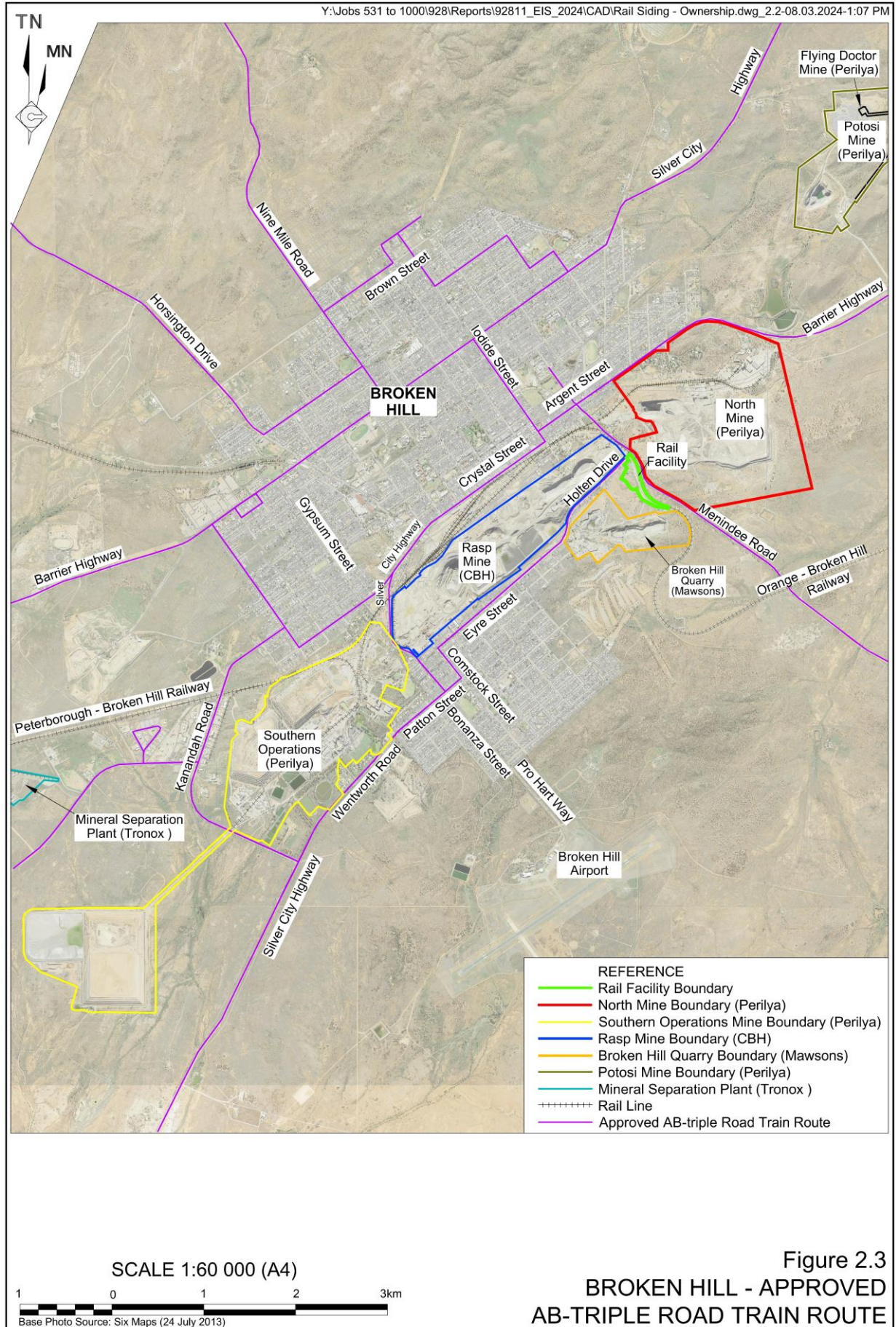
Figure 2.4 presents a plan showing the location of the relevant land holdings within and surrounding the Mine Site. In summary, the Mine Site is the subject of four Western Land Lease landholdings as follows.

- “Warwick” – held by the Wentworth Pastoral Company, an entity associated with the Applicant. As a result, the property is Project-related.
- “Belmore” – held by a private individual. At the time of finalisation of this document, the Applicant was negotiating a commercial agreement with the owners of this property. As a result, the property is Project-related.
- “Huntingfield/Sunshine” – owned by a private individual. The Applicant has been negotiating with the owner of this property since 2020 and anticipates reaching a commercial agreement with them prior to commencement of mining operations within that property. Once that agreement is finalised, that property would be Project-related. Until that time, the property has been assessed as non-Project related. If no agreement is reached mining would not be undertaken on that property.
- “Nulla” – held by a private individual. At the time of finalisation of this document, the Applicant was negotiating a commercial agreement with the owners of this property. As a result, the property is Project-related.



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2.2.4 Land Ownership

2.2.4.1 Mine Site

Figure 2.4 presents a plan showing the location of the relevant land holdings within and surrounding the Mine Site. In summary, the Mine Site is the subject of four Western Land Lease landholdings as follows.

- “Warwick” – held by the Wentworth Pastoral Company, an entity associated with the Applicant. As a result, the property is Project-related.
- “Belmore” – held by a private individual. At the time of finalisation of this document, the Applicant was negotiating a commercial agreement with the owners of this property. As a result, the property is Project-related.
- “Huntingfield/Sunshine” – owned by a private individual. The Applicant has been negotiating with the owner of this property since 2020 and anticipates reaching a commercial agreement with them prior to commencement of mining operations within that property. Once that agreement is finalised, that property would be Project-related. Until that time, the property has been assessed as non-Project related. If no agreement is reached mining would not be undertaken on that property.
- “Nulla” – held by a private individual. At the time of finalisation of this document, the Applicant was negotiating a commercial agreement with the owners of this property. As a result, the property is Project-related.

In addition, the Site Access Road would pass through “Coleraine” and “Bunarungie” stations. At the time of finalisation of this document, the Applicant was negotiating a commercial agreements with the owners of these properties for an easement for use of the road corridor for agricultural purposes and to extend that agreement for mining-related purposes should the Project be approved.

The closest non-Project related residences to the Mine Site and transportation route are as follows.

- Residence R1, located approximately 1.3km from the proposed Limit of Disturbance.
- Residence R3, located approximately 3.1km from the proposed Limit of Disturbance.
- Residence R6, located approximately 10.1km from the proposed Limit of Disturbance.
- Residence R7, located approximately 2.2km from the proposed upgraded Anabranche Mail Road.
- Residence R9, located approximately 12.5km from the proposed Limit of Disturbance.

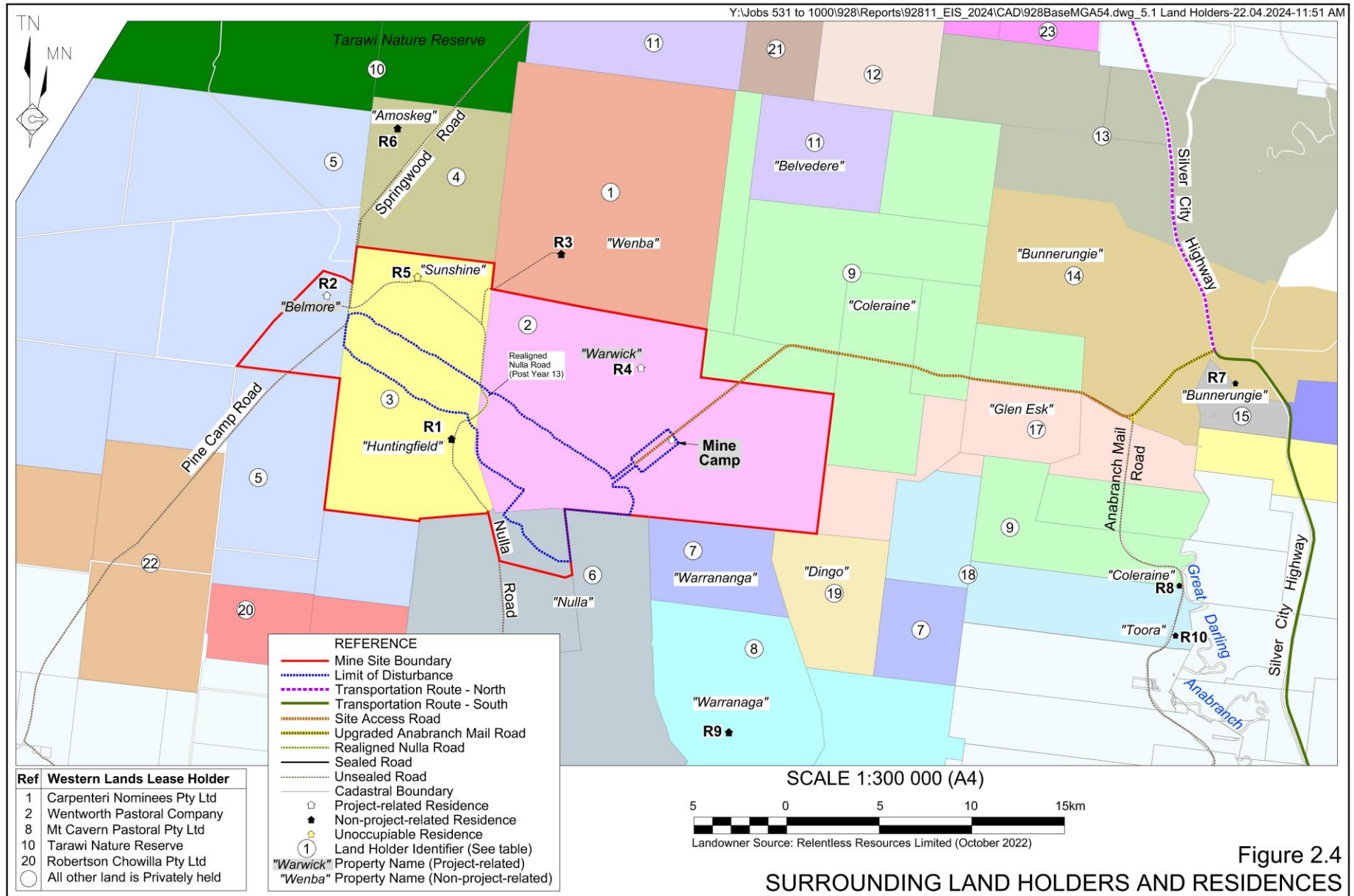


Figure 2.4
SURROUNDING LAND HOLDERS AND RESIDENCES



2.2.4.2 Transportation Route

The transportation route is limited to public roads and is generally located within road reserves associated with Anabranche Mail Road, the Silver City Highway, Wentworth Road, Patton Street, Comstock Street, Eyre Street and Holten Drive.

2.2.4.3 Rail Facility

Figure 2.5 presents relevant land tenure surrounding the Rail Facility. In summary, the land within the Rail Facility is held by the State Rail Authority for the purposes of a Rail Facility. A small section of the Rail Facility, namely an existing access track, occurs on the Willyama Common, Crown land managed by Broken Hill City Council.

The closest residences to the Rail Facility are the Junction Circle Residences, owned by Perilya Broken Hill Limited, located approximately 550m to the northwest of the Rail Facility entrance, and Residences located on Piper Street, a minimum of 1km from the southwestern boundary of the Rail Facility.

2.2.5 Natural and Built Features

2.2.5.1 Mine Site

The Wentworth LGA is dominated by sparsely populated arid to semi-arid rangelands with a very low population density. The dominant regional watercourses are the Darling and Murray Rivers, as well as the Great Darling Anabranche however none of these drainage features are hydraulically connected to the Mine Site. Internally draining catchments are common, particularly within and in close proximity to the Mine Site.

Agricultural lands, except for those subject to cultivation in the vicinity of the Murray and Darling Rivers, are typically unimproved and are dominated by arid to semi-arid open woodland and shrubland.

A range of Nature Reserves and National Parks have been gazetted within the Wentworth LGA, including the Tarawi Nature Reserve located approximately 10km to the north of the Mine Site (**Figure 2.4**). The National Parks and Wildlife Service describes the Tarawi Nature Reserve as follows.¹

“[The] Reserve contains an area of relatively undisturbed scotia mallee and she-oak communities. Localised areas within the reserve support belah—western rosewood woodland with relatively rich understoreys. This is virtually unknown elsewhere as grazing removes this species.

Much of the sand plain country is relatively open, supporting bluebush, narrow-leafed hop-bush, turpentine, various chenopod saltbushes and a variety of native grasses.

The reserve is prime habitat for the endangered mallee fowl. Tarawi Nature Reserve also features areas of *Acacia wilhelmiana*, a dwarf wattle less than two metres high and bluebush daisy, an endangered plant in NSW that is restricted to a few specimens in the Wentworth district.

Vulnerable birds include the striated grass wren, gilbert's whistler, the southern scrub robin and the shy hylacola. Two endangered birds also occur in the area, the regent parrot and the black-eared miner.”

¹ Source: <https://www.nationalparks.nsw.gov.au/visit-a-park/parks/tarawi-nature-reserve> - accessed 6 July 2022.



Figure 2.5
RAIL FACILITY -
LAND OWNERSHIP AND TENURE



The built environment within the Wentworth LGA is dominated by:

- widely spaced rural residences and associated agricultural infrastructure;
- transportation infrastructure, including:
 - the Silver City Highway and associated bridges and other infrastructure; and
 - local roads, including Springwood Road; and
- the Wentworth to Broken Hill pipeline and 220kV Buronga to Broken Hill Transmission Line.

2.2.5.2 Rail Facility

The Rail Facility occurs in a highly modified environment on the eastern boundary of the Broken Hill urban area (**Figures 2.2** and **2.5**). The built environment is dominated by Perilya's North Mine and CBH's Rasp Mine located to the east and northwest of the Rail Facility respectively and Mawsons' Broken Hill Quarry, located to the south of the Rail Facility.

2.2.6 Risks and Hazards

Appendix 2 presents the analysis of risk prepared for the environmental aspects of the Project. Section 6.11 presents an assessment of hazards associated with the Project, including hazardous materials, radiation and bushfire.

2.3 Cumulative Impacts

2.3.1 Mine Site

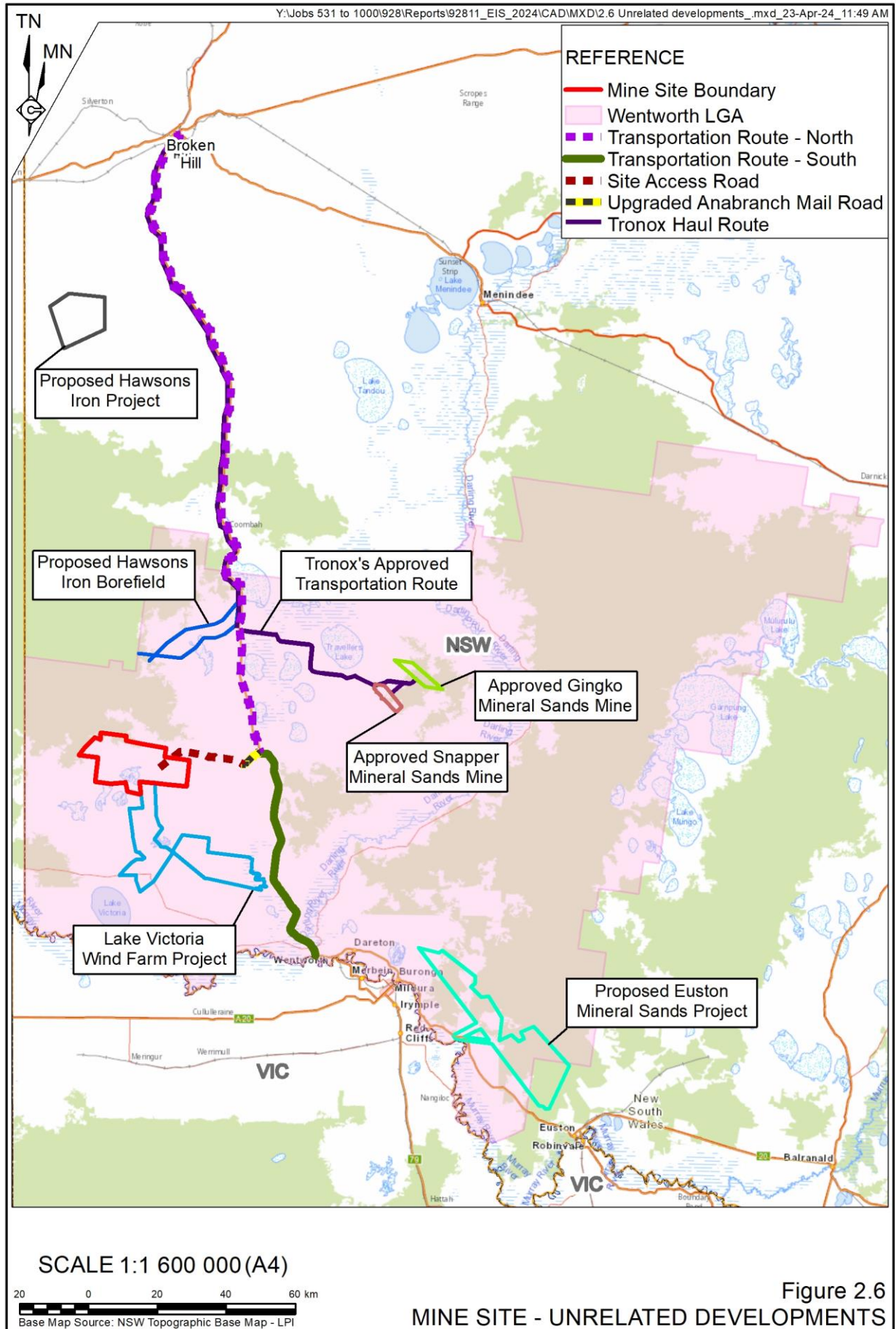
Figure 2.6 and the following present the principal mining developments within and surrounding the Wentworth LGA that are not associated with the Project. There is potential that these mining operations may, together with the Project, result in cumulative impacts for the residents of the Wentworth LGA and surrounds. Potential cumulative impacts are assessed under the relevant environmental aspects in Section 6.

In addition, a range of small, primarily gypsum and bentonite mining operations also occur within and surrounding the Wentworth LGA. It is not anticipated that the Project would result in cumulative impacts associated with those operations.

Snapper and Ginkgo Mineral Sands Mines

The Snapper and Ginkgo Mines are operated by Tronox Mining Australia Limited (Tronox) and are approved to use a combination of dredge and dry mining techniques to extract up to 14Mtpa and 19.9Mtpa respectively of minerals sands ore (Tronox, 2022).

Up to 975,000tpa of heavy mineral concentrate is transported from the Mines to Tronox's Broken Hill Mineral Separation Plant (see below) via an unsealed haul road and the Silver City Highway to Kanandah Road on the western side of the Broken Hill urban area.





The Snapper Mineral Sands Mine northern extension modification, approved in March 2020, extends the mine's operational life until 10 July 2026. The Ginkgo Mine has a development consent that permits mining until 31 December 2025.

Euston Mineral Sands Project

The Euston Mineral Sands Project is a proposed mineral sands mining project located approximately 25km to the east of Mildura. The Project received SEARs on 23 February 2023 and would comprise the following (EMM, 2023).

- Open cut mining of six mineral sands deposits using dry mining methods.
- Processing of extracted ore using a wet concentrator plant and wet high intensity magnetic separator plant to produce up to 270,000tpa of magnetic and non-magnetic heavy mineral concentrate.
- Employment of 250 to 300 people during construction and 150 to 250 people during mining.
- A mine life of approximately 12 years.

Hawsons Iron Ore Project

Hawsons Iron Ltd (HIO) proposes to develop an open cut magnetite mine approximately 60km southwest of Broken Hill, close to the South Australia border and within the Unincorporated Area of NSW. A Scoping Report and application for updated SEARs were submitted in February 2022, with updated SEARs issued on 27 April 2022. This Project would comprise the following (HIO, 2022).

Open cut mining using conventional drill, blast, load and haul mining methods.

- Processing of extracted ore using on-site crushing, grinding and magnetic separation methods to produce up to 20Mtpa of magnetite concentrate.
- Construction and operation of a waste rock storage facility and a tailings storage facility.
- Construction of a borefield and associated infrastructure approximately 35km north of the Copi Mine Site to extract up to 40GLpa of groundwater from the Lower Renmark Formation and transfer it approximately 95km north to the HIO Mine Site.
- Employment of up to 1,200 people during construction and 500 people during mining.
- A mine life in excess of 20 years.

Whilst the HIO Project's proposed 40GL/year of water extraction would cause depressurisation of the Lower Aquifer, GEO-ENG (2024) concluded that the HIO Project would have no significant effect on the Copi Mineral Sands Project or the host Upper Aquifer.



Lake Victoria Wind Farm Project

WestWind Energy Pty Ltd propose to develop up to 210 wind turbines over an approximately 41,600ha site located to the south and southeast of the Mine Site (**Figure 2.6**). The Project is in the early stages of feasibility and environmental assessment. Initial public consultation was undertaken in April 2024 and limited information was on the public record at the time of finalisation of this document. Based on available information, the Project would include the following.

- Between 200 and 210 wind turbines with a maximum tip height of up to 280m and blades of up to 200m in diameter.
- Anticipated generation capacity of approximately 5,200GWh/year.
- Environmental studies and planning approvals to be sought during 2024 and 2025.
- Detailed design, financing, construction and commissioning to be undertaken between 2026 and 2029.
- An operational life of 30 years from 2029 to 2059.

Given the preliminary nature of the of the available information and time until construction or operation would commence, this Project is not considered further.

2.3.2 Rail Facility

Figure 2.2 and the following present the principal mining developments with the Broken Hill LGA that are not associated with the Project. Considering the limited Project-related activities proposed within the Broken Hill LGA, and the location of those activities, there is limited potential for cumulative. Notwithstanding, potential cumulative impacts are assessed in Section 6.

Perilya's Broken Hill Operations

Perilya Australia Limited (Perilya) operate three mines within Broken Hill as follows.

- Southern Operations – this mine comprises an underground mine and processing facility. The processing facility processes ore from underground mining operations within the Southern Operations Mine Site, as well as Perilya's other Broken Hill mining operations and exports concentrate via rail. Tailings are placed into a tailings storage facility located to the west of the Broken Hill LGA. The Southern Operations operate under existing use rights and there is no published end date for mining operations.
- North Mine – this operation comprises an underground mine that extracts and transports by road up to 400,000tpa of ore to the Southern Operations. The approved transportation route does not coincide with the Project's proposed transportation route. Mine operations are approved to continue until 21 December 2043.
- Potosi Mine – this mine comprises an underground mine that extracts and transports ore to the Southern Operations. The approved transportation route does not coincide with the Project's proposed transportation route. The mine is nearing the end of its productive life.



Perilya also holds development consent to operate the Flying Doctor Mine, an undeveloped open cut mine that would extract and transport ore to the Southern Operations. The approved transportation route does not coincide with the Project's proposed transportation route. No timetable has been established for commencement of the Flying Doctor Mine.

Rasp Mine

The Rasp Mine is operated by CBH Resources Limited and is an underground mine located in the centre of Broken Hill. The Rasp Mine is approved to extract and process on site up to 750,000tpa of ore and has an approved life until 31 December 2026. A section of the Project's proposed transportation route runs along the southern boundary of the Rasp Mine Site.

Mawsons' Broken Hill Quarry

Mawsons' Broken Hill Quarry is approved to extract and process up to 350,000tpa of extractive materials and transport those materials from the Quarry Site via road (Holten Drive) and rail. The Quarry has an approved life until 2043.

The Quarry and the Project would share use of the Rail Facility, with a third party managing the facility for both parties. The EIS for the Quarry (RWC, 2013) identifies that between 30,000tpa and 50,000tpa of rail ballast is transported from the Quarry Site via the Rail Facility.

The Quarry and the Project would also share a road transportation route, namely Holten Drive. RWC (2013) also identifies that the Quarry would, on average, result in 38 laden movements to or from the Quarry Site with a maximum of up to 120 laden movements.

Tronox's Mineral Separation Plant

Tronox's Mineral Separation Plant is located off Pinnacles Road, to the west of the Broken Hill urban area. The Plant has approval to process up to 1.2Mtpa of heavy mineral concentrate until 31 December 2032. Tronox also has approval to transport heavy mineral concentrate from its Snapper and Gingko Mines to the Plant using AB-quad road trains. The transportation routes for the Snapper and Gingko Mines as well as the Project's are coincident from the intersection of the Silver City Highway with Tronox's Haul Road to Kanandah Road, located to the west of the Broken Hill urban area, a distance of approximately 154km.

2.4 Planning and Other Agreements

The Applicant has commenced negotiations with both Wentworth Shire Council and Broken Hill City Council to establish Planning Agreements with each. The Planning Agreements will include the following.

- Arrangements for upgrades to and, in the case of Anabranh Mail Road, ongoing maintenance of sections of the public road network.
- Contributions to the infrastructure works within each LGA, commensurate with the degree of impact of the Project on the local community.
- Contributions to a community fund for support of community led projects.
- Procedures for implementation of the above.



The Applicant anticipates that the Planning Agreements will be agreed, publicly exhibited and formally adopted prior to the determination of the Project.

Section 5.1.2.1 presents an overview of engagement with landholders within and surrounding the Mine Site. In summary:

- Commercial agreements have been or are in the process of being negotiated with the owners of the “Warwick”, “Belmore”, “Nulla”, “Coleraine” and “Bunarungie” with each property classified as Project-related.
- Negotiations with the owner of “Huntingfield/Sunshine” are ongoing. Mining operations within that property will only be undertaken in accordance with a written agreement. Until such an agreement is in place, that property is classified as “non-Project related”. If no agreement is reached, mining will not be undertaken on that property.
- Good neighbour agreements are being negotiated with all Mine Site fence line neighbours. These agreements provide both parties with clearly documented two-way processes for communication and land access, including agreements on fencing, landholder compensation, and other specific requirements. Relevant information set out in these agreements will be disseminated to employees and contractors to ensure compliance with landholder requests.

2.5 Alternatives Considered

2.5.1 Introduction

Section 3 describes the Project as proposed. The following subsections presents the feasible alternatives that were considered and rejected during the design and planning phase of the Project.

2.5.2 Alternate Mining Methods

The Applicant proposes to extract the identified heavy mineral resources using wet dredge mining operations (see Section 3.5). The alternative of extracting the identified resources using conventional dry open cut mining operations was also considered.

Conventional dry open cut mining operations would have the advantage of the following:

- More selective mining of ore that would have resulted in a higher head grade for the extracted ore as a result of minimised intermingling with overburden.
- Minimised additional capital costs early in the life of the Project.

Notwithstanding these benefits, this alternative would have resulted in the following less favourable outcomes.

- Advanced dewatering would be required, resulting in substantially more water being required to be withdrawn from the Upper Aquifer, and re-injection of excess water back into the aquifer. For comparison, early estimates for advanced dewatering for a substantially shallower mining operation indicated that between



7.5GLpa and 32.2GLpa of water would be required to be withdrawn from the aquifer. By contrast, the Project as proposed has a peak extraction rate of approximately 4.8GLpa in Year 1 of mining operations, reducing to between 2,817MLpa and 1,278MLpa in Years 2 to 15.

- Significant water management and processing facilities would be required, causing substantial increases in the additional capital costs required.
- Substantially more mobile plant would be required, with associated additional noise, dust and greenhouse gas emissions.

In light of these considerations, the Applicant determined that a wet dredging mining operation is the preferred mining methodology.

2.5.3 Alternate Power Supply Options

The Applicant proposes to initially power the Project using silenced diesel-powered generators. During that stage, a 66kV transmission line would be constructed from the 220kV Buronga to Broken Hill Transmission Line. Once the transmission line is operational, the diesel-powered generators would be largely decommissioned, and the Project would be powered from the national electricity grid, with only emergency on-site generation capacity once mains power is connected. Once connected to the national electricity grid, the Applicant has committed to obtaining a minimum of 30% of its power requirements from renewable sources, either through the purchase of certified renewable power or through the installation of the proposed Solar Farm.

During the planning phase for the Project, the Applicant considered a substantial number of power supply options, including the following.

- No grid connection.

Initially, the Applicant was advised that the 220kV Buronga to Broken Hill Transmission Line had insufficient capacity for the Project. As a result, on-site power generation was originally proposed. However, the Applicant subsequently was advised that adequate capacity would be available.

Onsite generation would have resulted in a lower capital cost at the beginning of the Project. However, powering the generators would require ongoing consumption of fuel (diesel or liquified natural gas (LNG) and higher operational costs and greenhouse gas and other particulate emissions. As a result, the Applicant has commenced negotiations to secure connection to the national electricity grid.

- Diesel vs LNG-power generation.

The Applicant considered the use of both diesel and LNG-powered generation capacity. LNG-generated power would have the advantage of lower particulate emissions and, as substantial LNG is produced domestically, less reliance on imported fuel. However, recent changes in the Victorian government's policy in relation to gas supply and installation of LNG facilities, reliance on LNG from that State was determined to pose too high a risk for the Project and supply from other States was determined to be cost prohibitive. As a result, diesel generation for the initial stages of the Project was determined to be the preferred option.



- No installation of a solar farm

The Applicant would install sufficient transmission capacity to fully power the Project. The Applicant determined that 100% reliance on non-renewable power generation would not be consistent with the expectations of the community, regulators, financiers or its potential customers. As a result, the Applicant has committed to sourcing at least 30% of its electricity from renewable sources.

While the intention is to purchase renewable power from the grid, the Applicant is seeking approval for installation of a 35MW Solar Farm. This option has been included to ensure that the Applicant can achieve its 30% renewable energy commitment in the event that purchase of renewable power is not available or is not commercially feasible.

A further option that remains under active consideration is installation of additional (i.e. greater than 35MW capacity) solar or wind generation capacity and potential use of battery storage. The Applicant will continue to assess these options and would submit an application to modify any development consent issued or seek a new development consent if required.

2.5.4 Alternate Site Access Options

The Applicant proposes to access the Mine Site from the east via the Silver City Highway, Anabranche Mail Road and a proposed Site Access Road. An alternate option was to access the Mine Site from the west via Springwood Road. This option would have the following advantages.

- A shorter transportation distance for mine products to be transported to the Rail Facility.
- The upgraded Springwood Road would provide greater community benefits.
- Site access would be primarily via the public road network, thereby minimising the requirement for easements across private land.

However, access via Springwood Road would result in the following less favourable outcomes.

- Greater distance of road upgrades required (approximately 57km of Springwood Road to be upgraded compared with approximately 27km of Site Access Road to be constructed and 6.1km of Anabranche Mail Road to be upgraded).
- The tenure of the Springwood Road reserve where it passed through the Tarawi Nature Reserve is uncertain.
- A greater travel distance for those accessing the Mine Site from the south.

As a result, the Applicant elected to access the Mine Site from the east via Anabranche Mail Road.

In addition, the Applicant considered using Nulla Road as a light vehicle access from Wentworth to the Mine Site. This would have the advantage of being more direct, but would have the following disadvantages.

- The owner of “Nulla” Station whose house is located close to Nulla Road had reasonable and justified concerns about increased traffic on Nulla Road.



- Use of Nulla Road would result in a requirement to upgrade and maintain that road. The Applicant determined that it was not financially viable to do so.

2.5.5 Alternate Processing Operations

The Applicant proposes to construct a Wet Concentration Plant and Rare Earth Concentrate Plant within the Mine Site. A range of on-site processing options were considered, including but not limited to the following.

- Construction of the Wet Concentration Plant only, with bulk mine products to be further processed at the Applicant's Pinkenba Mineral Separation Plant.
- Construction of additional processing capacity within the Mine Site to further process the proposed products into final products.
- Direct shipping of a bulk mine products to customers overseas for further processing.

Following extensive metallurgical investigations, engineering assessments of the Pinkenba Mineral Separation Plant, market analysis and financial modelling, the proposed option was determined to be the most robust and financially viable.

2.5.6 Non-construction of a Mine Camp

The Applicant considered not installing a Mine Camp and transporting workers to the Mine Site each day in buses. This alternative would have the following advantages.

- Workers would return home each night, resulting in less disruption to family arrangements.
- Workers would be required to reside in Wentworth or surrounds, ensuring that the social and economic benefits of the Project would be retained in the local community.
- The Applicant received community feedback that the people of Wentworth and surrounding areas would prefer a residential operation.

However, this option was rejected for the following reasons.

- Fatigue would likely be difficult to impossible to manage, with a minimum 1.0 hour journey at the beginning and end of each shift. Even using busses, it is likely that this would place an unacceptable fatigue-related risk on workers.
- The Applicant would be limited in its ability to draw on specialist workers or workers not resident in Wentworth, thereby limiting the pool of available workers.

As a result, the Applicant considered that on balance, constructing a Mine Camp would provide a preferred outcome for the Project and its workers.



2.5.7 No Development Option

The option of not proceeding with development of the Project is assessed in Section 7.8.