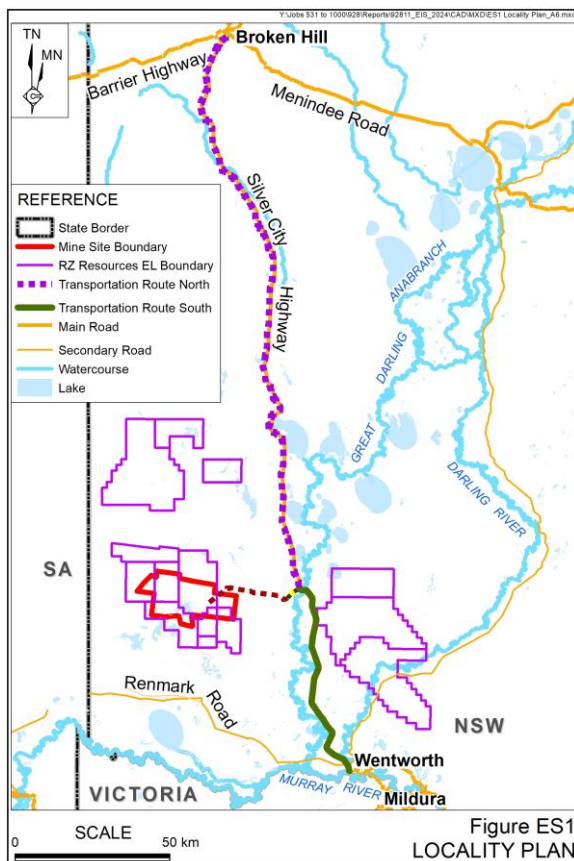




Summary

Introduction

RZ Resources Limited proposes to develop and operate the Copi Mineral Sands Project (the Project), a Critical Minerals mine and processing facility, in the Far West Region of NSW. The Project includes construction, mining, primary processing, and rehabilitation of a single deposit located approximately 75km northwest of Wentworth (**Figure ES1**).



The Project will extract a range of minerals containing titanium, zirconium, and rare-earth elements, all of which are listed by the NSW and Commonwealth governments as Critical Minerals. These minerals are vital for producing advanced electronics, telecommunications, defence infrastructure, and medical devices and are necessary to help drive the transition towards renewable energy.

The Project aligns with Australia's Critical Minerals Strategy 2023-2030 and aims to be at the forefront of the NSW Critical Minerals and High-Tech Metals Strategy.

The Project has been designed to address issues raised by the local community and all levels of government to maximise the benefits to the local community and NSW more broadly, including:

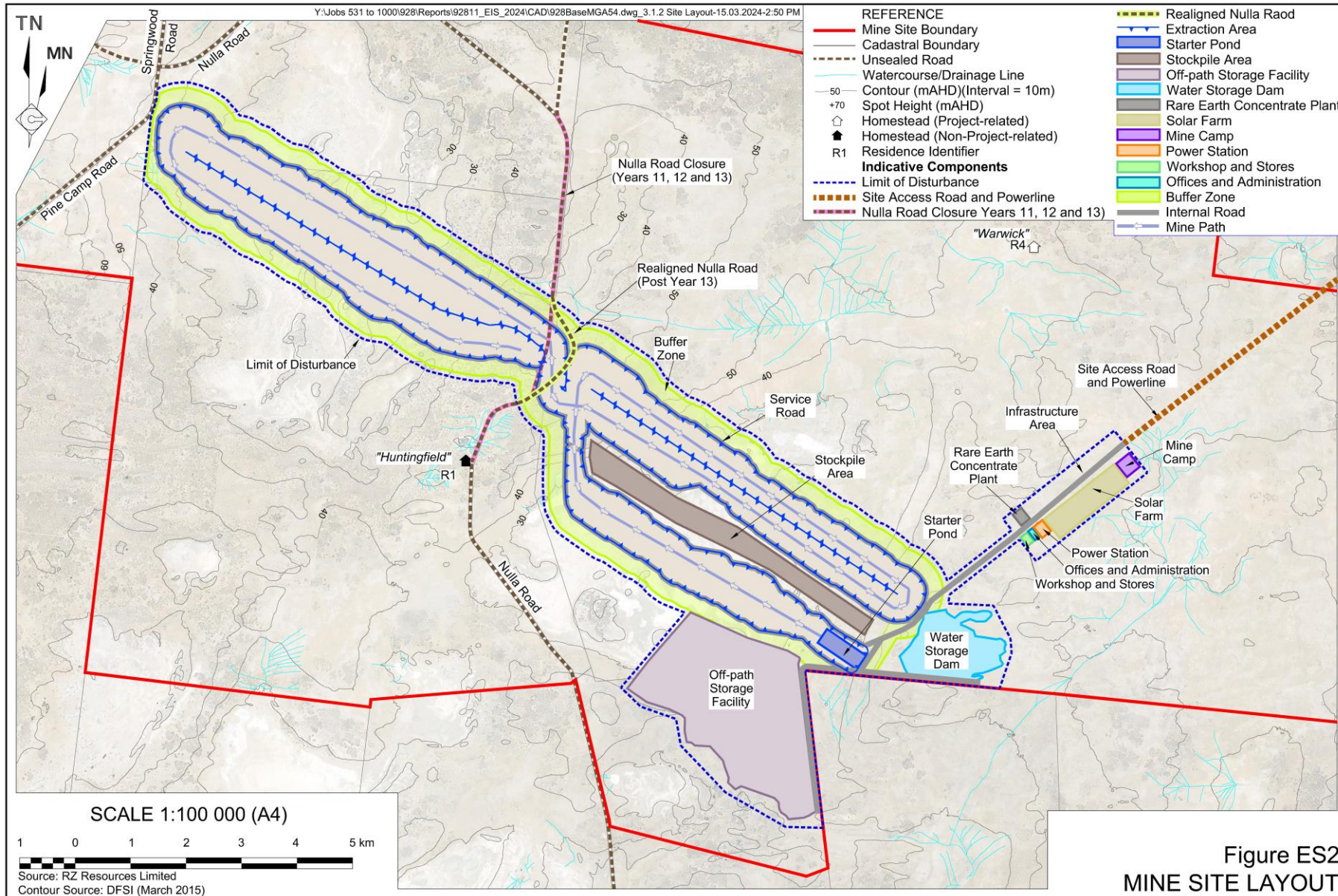
- Up to 480 direct full-time equivalent employment positions during construction and 240 positions during operations.
- Additional output within the Wentworth LGA of up to \$1.28 billion during construction and an average of \$628 million per year during operations.
- Up to approximately \$769 million in taxes and royalties over the life of the Project to State and National governments, with additional payments to Wentworth and Broken Hill Councils.

The Project will include the following components (**Figures ES1 and ES2**).

- Mining using a combination of traditional dry (excavate, load and haul) and wet (dredging) mining techniques to extract up to approximately 28.2 million tonnes per annum (Mtpa) of overburden, 48.0Mtpa of interburden and 27.7Mtpa of ore.
- On-site processing to produce up to 511,000tpa of mine products.
- Transportation of mine products in sealed containers from the Mine Site to the existing Broken Hill Rail Facility.



RZ Resources Limited
Copi Mineral Sands Project





RZ Resources Limited
Copi Mineral Sands Project

- Progressive establishment of a final landform with re-established ecosystem function.
- Construction and use of ancillary infrastructure, including the following.
 - A Mine Camp for 200 people.
 - Offices and administration facilities.
 - Workshops and stores.
 - A Site Access Road.
 - A 66kV transmission line adjacent to the Site Access Road.
 - Internal access roads,

The life of the Project will be 26 years, comprising an initial 2-year construction period, followed by 17 years of mining operations and a further period of 7 years of rehabilitation.

Project Background

The target mineral sands deposits within the Mine Site are the Loxton-Parilla Sands. The Mine Site was once covered by the ocean and the heavy mineral deposits were formed by wave and wind action. The ore bodies are a group of high-grade strandlines and lower-grade, higher-volume paleo dunes. Collectively, these ore bodies form deposits rich in ilmenite, rutile, zircon, leucosene, monazite and xenotime.

The Project's mineral resource contains approximately 2,540Mt of ore with an average grade of 1.2% heavy mineral.

The Project's heavy mineral concentrate will be processed to produce a range of mine products. Under a separate approval, these products will be transported to the Broken Hill Rail Facility for onward transportation to RZ Resources' Pinkenba Mineral Separation Plant in Brisbane or directly to domestic or international customers.

The Applicant

The Applicant, RZ Resources Limited, is a wholly Australian-owned mining company that produces critical minerals and rare earth elements. Information on the Company is available from its website (<https://rzresources.com/>).

RZ Resources is controlled by a Board of Directors and management team with a comprehensive range of skills and over 200 years cumulative experience, mostly in the mineral sands and the critical minerals space.

RZ Resources is committed to securing the critical minerals supply chain for Australia, the US, and its allies to ensure manufacturing capability across defence, clean energy, automotive, telecommunications, and other vital industries. RZ Resources states that it will not outsource the processing of rare-earth elements or export its rare-earth products to China.

RZ Resources has been involved in the Wentworth community since assuming control of the Project in 2017 and has an exploration base in the town, with 20 employees who live in the local region. RZ Resources has provided a total contribution to the local community of \$140,000 to date, including:

- participation in and sponsorship of the annual Wentworth show since 2017, including a donation to help construct a new pavilion; and
- financial contribution to help reconstruct the Junction Island pedestrian Bridge.



Objectives of the Project

RZ Resources' objectives in constructing and operating the Project are as follows.

- To safely and economically mine the identified mineral sand reserves in an environmentally responsible manner to provide essential critical minerals and rare earth elements, maximising the benefits to the local community and the State of New South Wales.
- To provide socio-economic benefit to the Wentworth LGA and surrounding regional communities by generating up to 240 direct long-term full-time equivalent jobs, encouraging workers to live locally while supporting local businesses and community organisations.
- To create a final landform suitable for post-mining land use for nature conservation and/or grazing.
- To achieve the above objectives cost-effectively to ensure employment security for employees and contractors and the continued economic viability of RZ Resources, its suppliers, and partners.

Approvals Required

The *Environmental Planning and Assessment Act 1979* (EP&A Act) provides the framework for the assessment and determination of development applications in NSW. As the Project is for the purposes of mining mineral sands, it is classified as a State Significant Development under Clause 5(1)(a) of Schedule 1 of the *State Environmental Planning Policy (SEPP) (Planning Systems) 2021*. This application is therefore made under Part 4, Division 4.7 of the EP&A Act.

Other environmental and planning approvals, licences and leases required include the following.

Mining Lease – As the Project will extract a mineral under the *Mining Act 1992*, a Mining Lease will be required.

Environment Protection Licence – As the Project is for the purposes of mining and will disturb more than 4ha, an Environment Protection Licence will be required.

Water-related approvals – A Water Access Licence under the *Water Management Act 2000* is required for groundwater that will flow into the proposed Extraction Area or will be sourced from the proposed production bore(s). In addition, licences for additional monitoring bores are also required.

Roads Act approvals - As road improvement works will be required in public road reserves, one or more Permits under Section 138 of the *Roads Act 1993* will be required from the Wentworth Shire Council, Broken Hill City Council and/or Transport for NSW. Permits for the use of BAB quad or Type 2 road trains on the Transportation Route - North will also be required.

Dangerous goods licences - To store and transport up to 7,500tpa of Monazite Product, a Class 7 (Radioactive Material) under the *Australian Code for the Transport of Dangerous Goods by Road & Rail*.

Negotiated Agreements

RZ Resources will enter into Planning Agreements with Wentworth Shire and Broken Hill City Councils, ensuring that these organisations and the communities they support can directly share in the economic benefits the Project will provide.

RZ Resources is finalising Good Neighbour Agreements with all fence line neighbours as well as landholders living along the Site Access Road. The Company is also



negotiating with the owner of Huntingfield/Sunshine station to resolve access and mining lease objections.

Description of the Project

Site Establishment

Site establishment activities will require approximately 2 years to complete and will include the following (**Figure ES2**).

- Upgrading and realignment of Anabranth Mail Road, including the intersection with the Silver City Highway, and construction of the Site Access Road and 66kV transmission line.
- Installation of construction infrastructure, including site offices, workshops, the Mine Camp for approximately 200 people, generators (for construction operations only), internal roads and related infrastructure.
- Commencement of the starter pond and establishment of the Off Path Storage Facility.
- Sequential construction of three dredges, Wet Concentration Plant and Rare Earth Concentrate Plant.

Mining Operations

Three classes of material will be extracted using both truck-and-shovel and dredge mining techniques as follows.

- Overburden – comprising material above the water table with insufficient heavy mineral to justify processing.
- Interburden – comprising material from below the water table with insufficient heavy mineral to justify processing.

- Ore – comprising material with sufficient heavy mineral to justify processing.

The Extraction Area comprises an area approximately 17km long and up to 3.3km wide. It will be mined using a series of mine paths up to 1km wide that will double back on themselves throughout the life of the Project, with a total length of approximately 40km. (Figure ES2).

Initially overburden would be extracted using traditional free dig, load and haul techniques to establish a construction pad and starter pond. Overburden will initially be used to construct site infrastructure.

The first dredge will be constructed on the construction pad before the pad is flooded and the dredge floated into the starter pond. That dredge will be used to enlarge and expand the dredge pond, allowing for the subsequent dredges and the floating Wet Concentration Plant to be constructed and floated.

Initially, interburden from dredging operations and initial reject from the Wet Concentration Plant will be placed within the Off Path Storage Facility.

Once sufficient area has been established within the dredge pond, interburden will be used to backfill the dredge pond, with overburden used to construct the final landform.

Only a small section of the Extraction Area will be active at any one time, with the dredge pond progressively moving along the mine path throughout the 17-year life of the mining operations.

The proposed mining schedule will result in the following material movement schedules.

- Overburden – approximately 344Mt over the life of the Project, with a maximum production rate of up to 28.2Mtpa.



- Interburden – approximately 612Mt over the life of the Project, with a maximum production rate of up to 48.0Mtpa.
- Ore – approximately 406Mt over the life of the Project, with a maximum production rate of up to 27.7Mtpa.

Processing Operations

RZ Resources will establish a floating Wet Concentration Plant within the dredge pond. Using a standard mineral separation methodology, this plant will separate heavy minerals from gangue (non-mineralised sand) using gravity spirals to produce a heavy mineral concentrate and reject. No chemicals will be used during processing operations, except for minor amounts of flocculant that will be used to settle fine particulates.

The heavy mineral concentrate will be transferred to the Rare Earth Concentrate Plant where it will be washed and further separated into the following mine products.

- Primary and Secondary Ilmenite Products.
- Monazite Product, a rare earth concentrate.
- Non-magnetic Concentrate.

The mine products will be placed into sealed containers for transportation to the Rail Facility. The Primary and Secondary Ilmenite and Non-magnetic Concentrate will be classified as non-hazardous and non-dangerous. Standard material handling precautions will be required during production, handling, transportation and storage of those materials.

Up to 7,500t of Monazite Product will be produced each year. That material will be classified as a Class 7 (Radioactive Material) and will be managed in accordance with a *Radiation Management Plan*. Relevant licences for storage and transportation of that material will be obtained. Storage and transportation of this material is a common practice throughout Australia and the world.

Reject from the Wet Concentration Plant and Rare Earth Concentrate Plant will be placed with the interburden and used to backfill the dredge pond, with overburden used to construct the final landform.

Transportation Operations

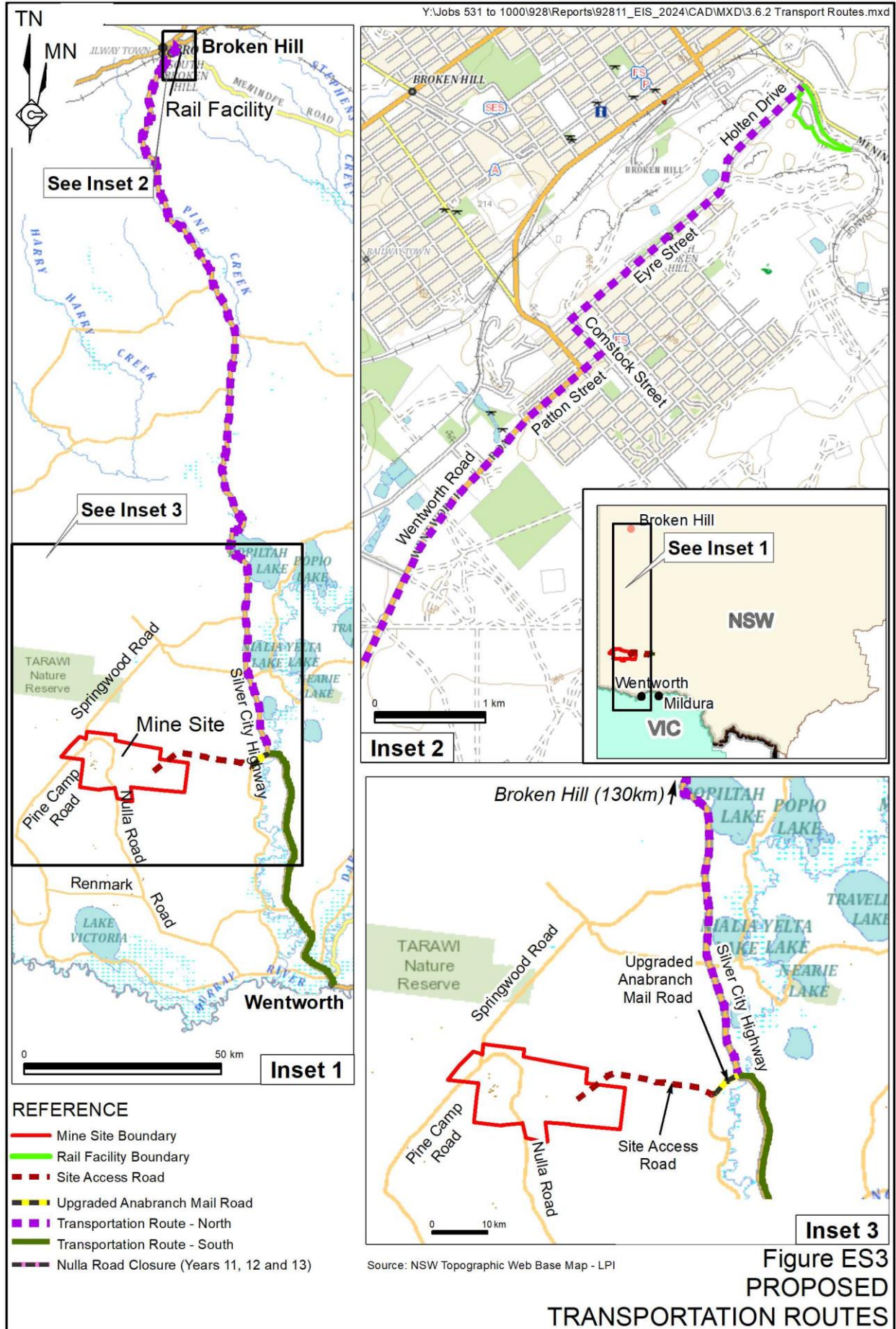
Figure ES3 presents the proposed transportation routes for the Project. In summary, all RZ Resources controlled vehicles will access the Mine Site via the Silver City Highway, a realigned Anabranth Mail Road and Site Access Road. Vehicles transporting mine products to the Rail Facility will utilise the Transportation Route - North. Vehicles accessing the Mine Site from the south will do so via the Transportation Route - South.

Both the Transportation Routes are approved for use by AB triple or Type 1 road trains. RZ Resources will seek approval for use of BAB quad or Type 2 road trains on the Transportation Route - North. Until such approval has been granted, RZ Resources will utilise Type 1 road trains only.

An approximately 6.1km section of Anabranth Mail Road will be upgraded and the section of the road near the intersection with the proposed Site Access Road will be realigned. In addition, an approximately 27km Site Access Road will be constructed to permit access to the Mine Site. The realigned Anabranth Mail Road and Site Access Road will be an all-weather, unsealed road.

The following intersections will also be constructed or upgraded to provide safer road conditions for the local community using this section of the road.

- Site Access Road and Anabranth Mail Road.
- Anabranth Mail Road and the Silver City Highway.
- Patton and Comstock Streets.
- Comstock and Eyre Streets.
- Holten Drive and the Rail Facility site entrance road.





The following intersections will also be constructed or upgraded to provide safer road conditions for the local community using this section of the road.

- Site Access Road and Anabranh Mail Road.
- Anabranh Mail Road and the Silver City Highway.
- Patton and Comstock Streets.
- Comstock and Eyre Streets.
- Holten Drive and the Rail Facility site entrance road.

All roads and intersections will be constructed to a standard suitable for BAB quad or Type 2 road trains in accordance with the *Austrroads Guide to Road Design*.

In addition, RZ Resources, in consultation with surrounding residents, proposes to close Nulla Road during Years 11, 12 and 13 between the entrance to the Huntingfield homestead and the southern entrance to Wenba Station (**Figure ES2**). During Year 13, RZ Resources will reinstate the road in a realigned location to the east of the current alignment to the satisfaction of Wentworth Shire Council.

RZ Resources anticipates the following maximum daily vehicle movements¹ over the life of the Project.

- Road trains between the Mine Site and Rail Facility – up to 24 (Type 2 road trains) or 32 (Type 1 road trains).
- Deliveries to the Mine Site – up to 14.
- Light vehicles, including buses – up to 88.

Transportation operations will be undertaken 24-hours per day, except for road train movements within the Broken Hill Local Government Area which will be undertaken between 7:00am and 10:00pm only.

¹ One return trip = 2 movements.

Rail Facility Operations

The Rail Facility will continue to be operated by a third-party service provider responsible for managing operations within the Facility and coordinating with the rail operator.

Vehicles transporting heavy mineral concentrate will enter the Rail Facility via the upgraded site entrance with Holten Drive. Full shipping containers will be unloaded from the trucks within the Rail Facility and empty containers will be reloaded using a forklift. A separate, secure storage area for shipping containers with Monazite Product will be established, with those containers to be stored at the Rail Facility for the minimum practicable time.

During train loading and unloading, one or more forklifts will be utilised to transfer full, sealed shipping containers from the stockpile area to the train and empty shipping containers from the train to the stockpile area. Monazite Product may be transferred from the Rail Facility by road.

Train loading and unloading operations will be undertaken 24 hours per day, 7 days per week as required by the operator of the rail line.

Hours of Operation and Project Life

Table ES1 presents the proposed operating hours throughout the remainder of the Project life.

After an initial construction phase of approximately 2 years, mining operations will require approximately 17 years to complete. Progressive rehabilitation will be undertaken throughout the life of the Project. Final rehabilitation operations are expected to take approximately 7 years.



**Table ES1
Hours of Operation**

Activity	Days	Hours ¹
Land preparation	7 days per week	Daylight hours
Construction operations	7 days per week ¹	7am-10pm ¹
• Road construction within Broken Hill LGA	7 days per week	24 hours per day
• 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	7 days per week	7am-10pm
• Heavy mineral concentrate transportation within Broken Hill LGA	7 days per week	24 hours per day
• 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	Daylight hours
Note 1: Or as instructed by the relevant road authority		
Source: RZ Resources Pty Limited		

Water Management

The groundwater and surface water environment within the Mine Site may be described as follows.

- Surface water drainage features within the Mine Site are indistinct, ephemeral, and discharge to internally draining depressions that do not flow to the surrounding environment.
- The Mine Site is located in an arid environment that experiences a significant water deficit with annual average rainfall of 235mm and annual average pan evaporation of approximately 2,073mm.
- The Project will operate entirely within the hypersaline, Loxton-Parilla Sands (Upper Aquifer).
- Groundwater quality within the Upper Aquifer is very poor, with an average

total dissolved solids concentration of 61,000mg/L. Sea water has an average concentration of approximately 35,000mg/L.

Water for ablutions, washing of the heavy mineral concentrate and mine products, dust suppression and rehabilitation will be sourced from one or more reverse osmosis plants. Feed for the reverse osmosis plants will be sources from production bores, with the raffinate from the plant(s) being returned to the dredge pond.

Water for the Wet Concentration Plant will be extracted from the dredge pond with the ore and returned directly to the pond or with the reject. RZ Resources anticipates requiring a licence for extraction of up to 9.6GLpa of hypersaline groundwater during the first year of mining operations, with groundwater take between Years 3 and 16 expected to be between 3.3GLpa and 5.4GLpa.

RZ Resources will ensure that:

- clean surface water from undisturbed sections of the Mine Site will be prevented from entering disturbed areas; and
- sediment and salt-laden water will be prevented from discharging to natural catchments.

Employment and Economic Contributions

RZ Resources anticipates that the Project will generate the following employment benefits.

- Construction – approximately 480 full time equivalent (FTE) employees.
- Operations – approximately 240 FTE employees.
- Post-mining rehabilitation – approximately 40 FTE employees.



The Project is expected to generate the following economic benefits.

- A positive net present value of \$1,052 million over the life of the Project
- A net benefit to NSW of \$481 million, with an associated net cost for road maintenance and greenhouse gas emissions of \$149 million

The Capital Investment Value for the Project will be approximately \$639 million.

RZ Resources has committed to ensuring that the economic benefits of the Project are retained, to the extent practicable, within the Wentworth LGA and surrounding areas through the fact that the Project's workforce will preferentially reside locally and that RZ Resources will prefer local residents in employment and local businesses for the supply of goods and services.

Rehabilitation and Final Landform

Rehabilitation of all areas disturbed by mining-related activities will be an integral part of the Project. Emphasis will be placed upon progressively creating final landforms, and re-establishing soil profiles and vegetation essential to achieving the preferred final land use(s).

The final landform will comprise the following (**Figure ES4**).

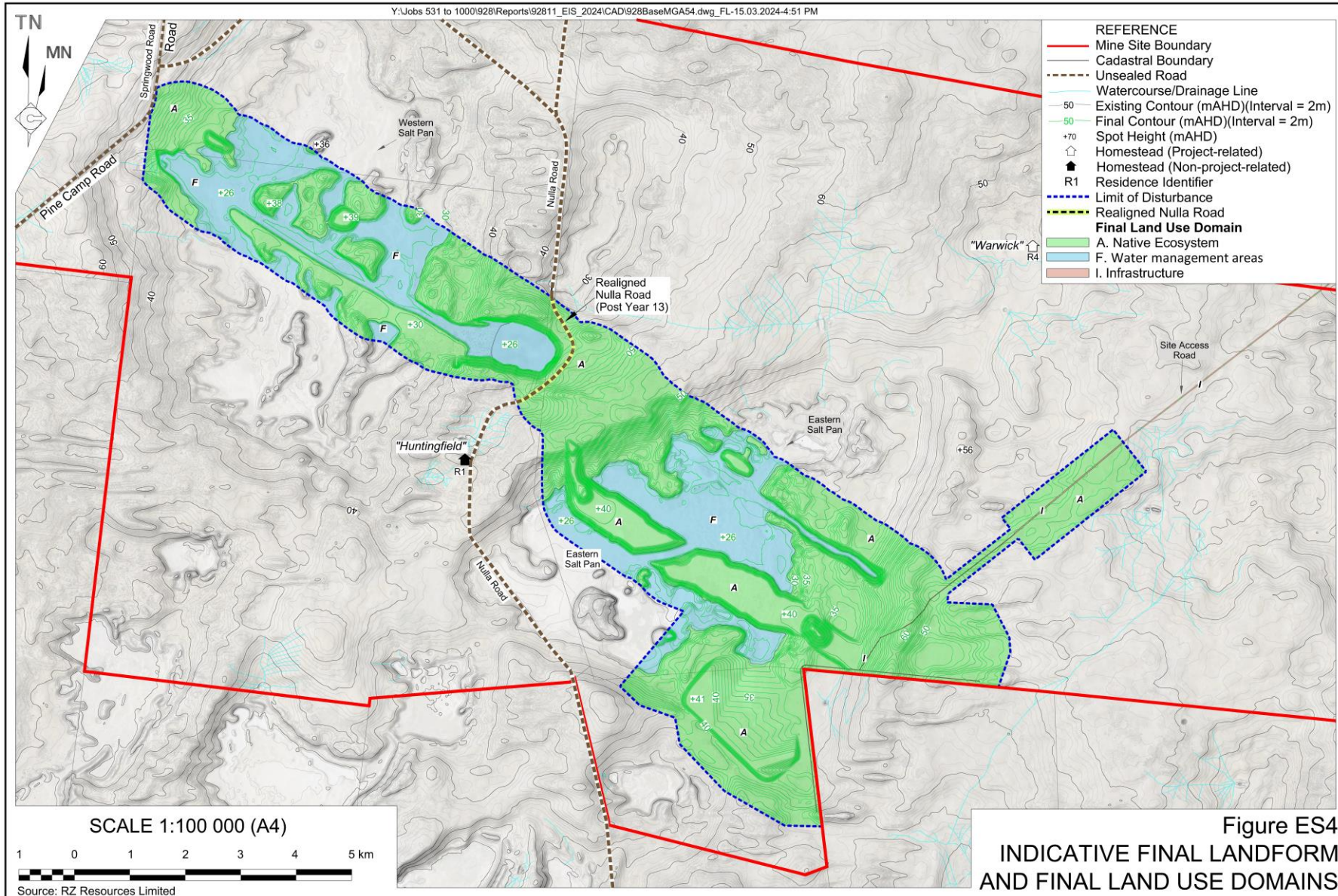
- An entirely backfilled Extraction Area with the pre-mining landforms largely re-established.
- The Off Path Storage Facility will be capped with clay-rich overburden and revegetated to form a free draining, gently northeast sloping upper surface.
- All other disturbed areas will have the original surface topography re-established.

- The Site Access Road and other internal roads required for the final land use will be retained, with the width of those roads reduced to that required for the proposed final land use.
- A reinstated and realigned Nulla Road suitable for post-mining use by surrounding residents and management by Wentworth Shire Council.

The proposed final land use will be nature conservation.

RZ Resources' longer-term rehabilitation objectives and completion for the Project at the end of resource extraction are as follows.

- The rehabilitated landform is safe, stable and non-polluting.
- All infrastructure and services not suitable for a lawful final land use to be removed.
- Infrastructure to be retained limited to that required for a lawful final land use.
- Reinstated Nulla Road complies with the requirements of Wentworth Shire Council.
- All roads and hardstand areas to be retained for a lawful final land use reduced in width to that suitable for final land use.
- Testing confirms no residual soil contamination associated with hydrocarbons or other materials.
- Shaped landform conforms to approved design and;
 - has flat areas that are internally draining and designed to maximise infiltration;
 - has slopes of less than 1:10 (V:H) and slope lengths of less than 100m;
 - is not subject to continued settling; and
 - is suitable to support the nominated final land use and vegetation community(ies).





- Final landform is contoured to design, deep ripped and soil spread in accordance with the approved design.
- Rehabilitated surface to be revegetated is seeded and stabilised (if soil conditions require).
- Rehabilitated surface within the Salt Pan stabilised through the establishment of a salt-rich crust.
- Vegetation on the final landform contains a diversity of species and is comparable to that of the local remnant vegetation.
- Land capability and productivity similar to existing land capability.

Community Engagement and Social Licence

RZ Resources is dedicated to ensuring maximum benefits for the local community and region, including creating employment opportunities and improving local infrastructure.

RZ Resources is committed to ongoing, open, and transparent communication with all affected stakeholders throughout the Project.

RZ Resources has engaged with landholders, the wider community, the Aboriginal community, and government agencies regarding the Project.

RZ Resources' Community Engagement Strategy was prepared in accordance with the guidelines published by the Department of Planning and Environment and implemented throughout the Project's design and planning phases.

Since 2018, a variety of formal and informal methods of engagement have been employed, including:

- Face-to-face meetings.
- Telephone discussions.

- Direct mail and email.
- Public and community meetings.
- Public displays.
- Hosting an information stall at the Wentworth Show.
- Presentations to key groups such as business groups and supplier groups.

Establishing a local presence has been important to RZ Resources. Since mid-2018, a full-time Exploration Manager has resided within the Wentworth LGA. The exploration team has now expanded to more than 20 people on a full-time equivalent basis.

RZ Resources will develop a Cultural Heritage Management Plan in partnership with the Registered Aboriginal Parties.

RZ Resources will continue to encourage two-way communication that is meaningful, relevant, and respectful with community members and stakeholders, offering various formal and informal opportunities for engagement, including the planned opening of a local shopfront.

Key matters of interest raised during landholder and community engagement included the following.

- Transportation routes and proposed road and intersection upgrades.
- Potential effects on groundwater, particularly within the Middle and Lower Aquifers.
- Potential effects on neighbouring agricultural operations.
- Location of the Mine Site and site infrastructure.
- Rehabilitation of the Mine Site.
- The Project's ability to improve communication and safety in the local area.
- Employment and economic opportunities.



Environmental Assessment and Management

The components and features of the existing environment within and in the vicinity of the Mine Site have been studied in detail and used to inform the design of the Project to avoid or minimise potential impacts.

The following provides a brief overview of the main components of the existing environment, the proposed safeguards to be implemented to minimise adverse effects and the assessed level of impact(s) arising from the Project.

Groundwater Resources

The Project's Groundwater Assessment was completed by GEO-ENG (2024) using a calibrated numerical groundwater model that was peer reviewed to ensure that it is "fit for purpose".

Three aquifers exist within the Mine Site, an Upper, Middle and Lower Aquifer. These aquifers are not connected, and the Project will disturb only the Upper Aquifer. The Upper Aquifer is hosted by the Loxton-Parilla Sands, an unconsolidated porous sand unit. The water table is largely flat, between 24.2m AHD and 24.8m AHD. Groundwater is hypersaline with the concentration of total dissolved solids approximately 61,000mg/L, or just under twice that of sea water.

It is predicted that, over the Project-life, the average annual groundwater take from the Upper Aquifer will be approximately 4.5GL/year with a maximum of 9.6GL/year predicted in Year 1 of mining operations.

Figure ES5 shows the predicted groundwater drawdown in Years 1 and 5.

The maximum predicted groundwater drawdown is predicted during construction and Year 1, with elevated groundwater levels under the Off Path Storage Facility.

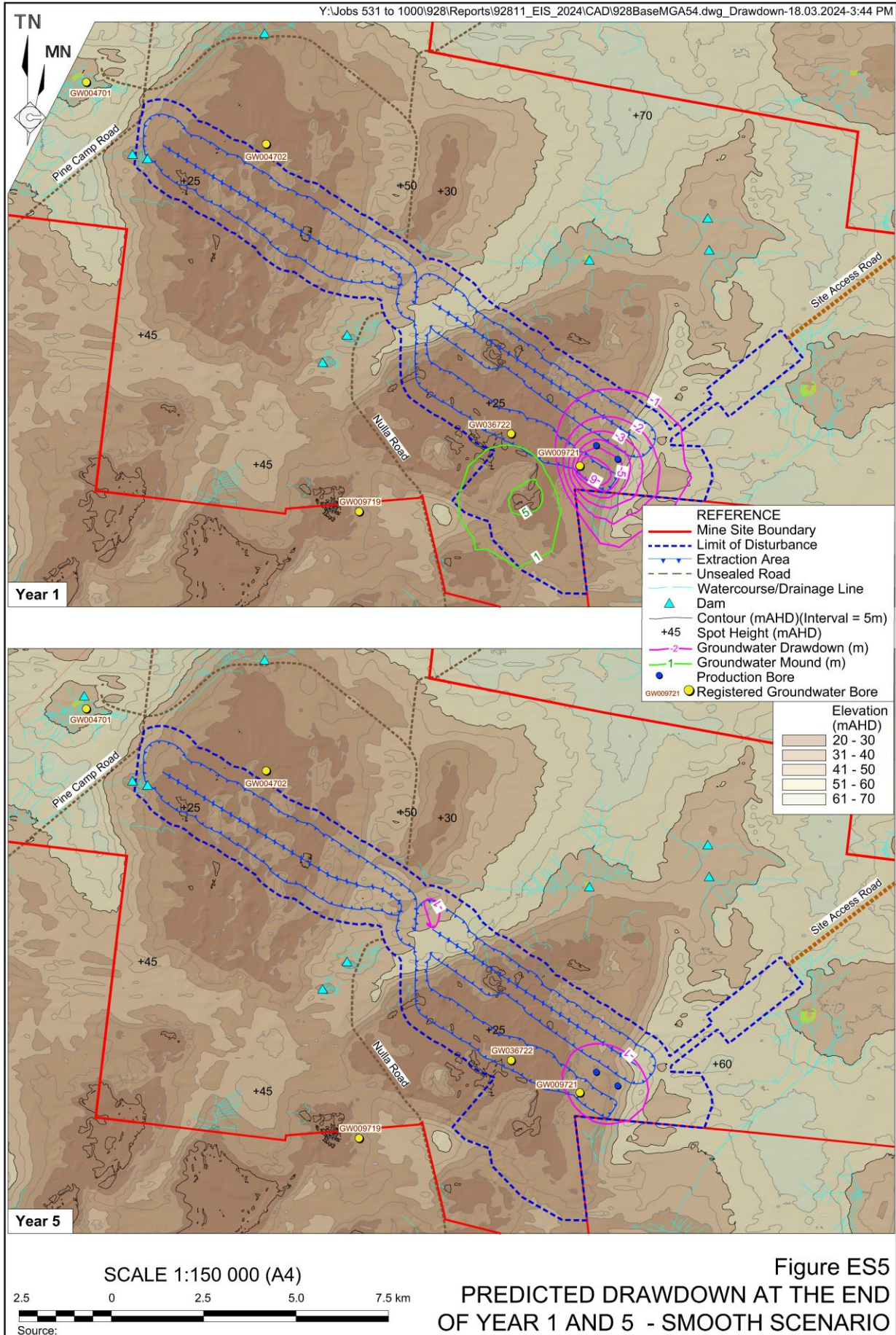
Once "routine" mining operations commence, groundwater drawdown will be limited to areas around the active dredge pond and the production bores. Following the completion of mining operations, groundwater levels are expected to rapidly return to pre-mining levels.

RZ Resources will source licences for a groundwater take of up to 9.6GL/year, noting that the water to be extracted is hypersaline and has no other beneficial use.

There are no registered groundwater bores in the Upper Aquifer in the vicinity of the Mine Site. A NSW government monitoring bore in the Extraction Area will be reconstructed in an alternative location if required. An additional Project-related bore will also be decommissioned and removed during mining operations.

Groundwater dependent ecosystems (GDE) are not expected to occur within the Project's zone of direct or indirect impact because the salinity of groundwater within the Upper Aquifer is higher than the upper limits for all except the most salt-tolerant species.

Groundwater quality in the Upper Aquifer is not expected to be reduced because the groundwater is hypersaline.





Biodiversity

The biodiversity assessment was completed by EnviroKey (2024) in accordance with the *Biodiversity Assessment Methodology* (BAM) 2020. That assessment identified the following within an area comprising the proposed Limit of Disturbance plus a 1,500m buffer (the Biodiversity Assessment Area).

- One endangered flora species, namely *Austrostipa nullanulla*, a perennial grass, was observed, with the Cobar Greenhood Orchid assumed to be present pending further surveys.
- A total of eleven Plant Community Types (PCTs). One community, namely PCT28 is associated with the White Cypress Pine open woodland endangered ecological community listed under the *NSW Biodiversity Conservation Act 2016*. A second community, namely PCT171, is associated with the Eastern Mallee Bird Community endangered ecological community listed under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (Figure ES6).
- No threatened or migratory fauna species were recorded within the Biodiversity Assessment Area.

The Project will result in the disturbance of the following.

- 5771.75ha of native vegetation.
- 201.99ha of non-native vegetation.
- 30.14ha of *Austrostipa nullanulla* habitat.
- 409.88 ha of Cobar Greenhood Orchid habitat, with the presence of the species to be confirmed with further surveys.

The Project will result in the requirement to retire 105,473 Ecosystem Credits and 11,751 Species Credits. The Cobar Greenhood Orchid generates 11,307 of the required Species Credits.

RZ Resources will retire the required credits through a combination of mechanisms, including establishment of one or more Stewardship Sites, purchase of credits held by third parties and, for any residual credit requirements, by paying into the Biodiversity Conservation Trust.

Soils and Land Capability

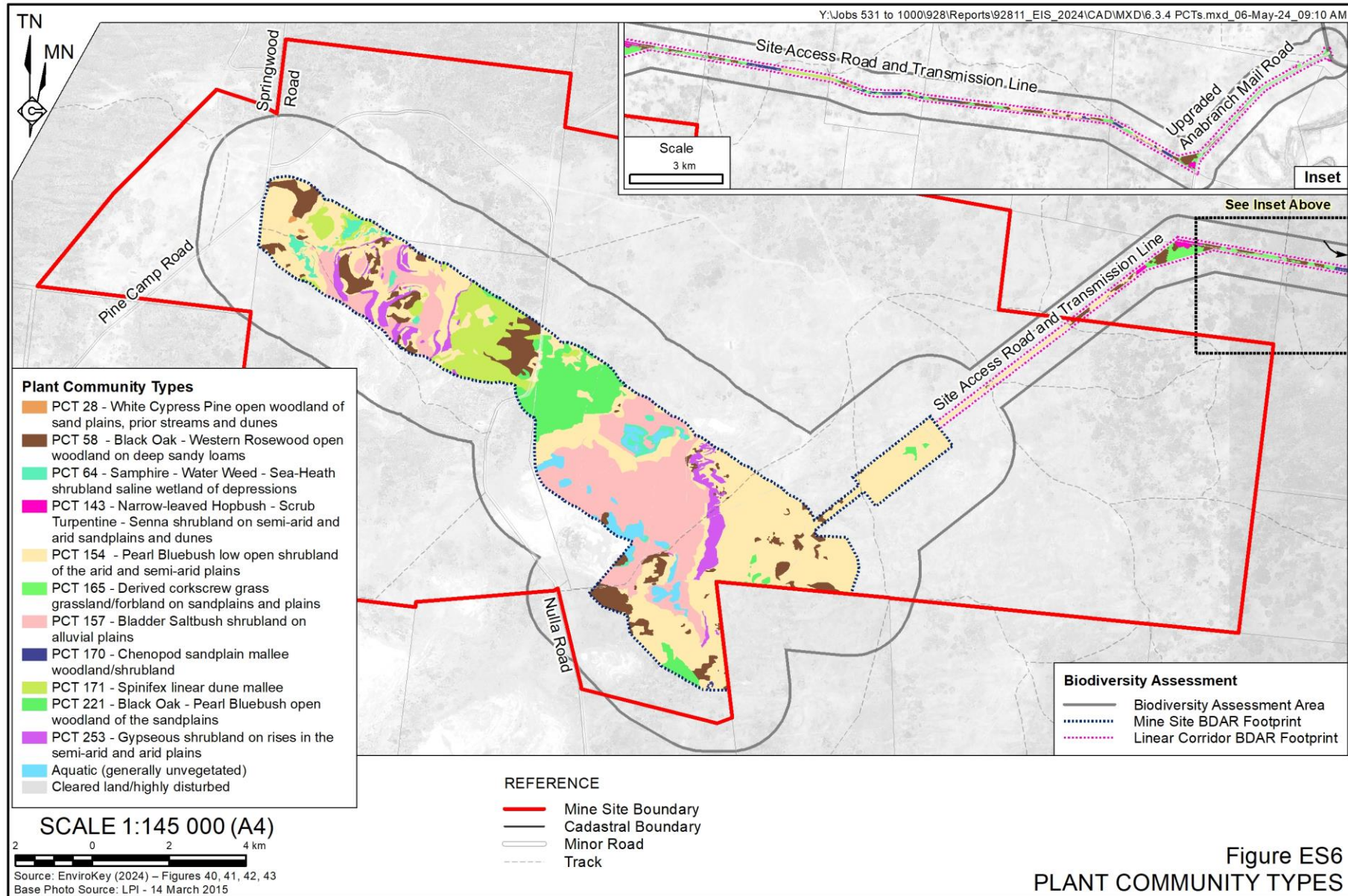
The soils within the Mine Site were mapped by SSM (2024) who identified six soil associations as follows.

- Dunefields and Sand Plains – primarily occupying areas of higher elevation.
- Blanchetown Clay – primarily occupying low lying areas.
- Lunettes – primarily comprising wind-blown material to the east of the Salt Pans.
- Lunettes with Copi – primarily occupying areas near or downwind of the Salt Pans.
- Lake Floor East - primarily occupying the Eastern Salt Pan. The soil is clayey and sufficiently saline to be toxic to plants.
- Lake Floor West – primarily occupying the Western Salt Pan. The soil is sandy and saline but typically not toxic to plants.

The greatest risk to soils within the Mine Site is wind erosion, with measures to manage this risk to be implemented by RZ Resources.

Recommended topsoil stripping depths vary between 0.2m and 0.4m of topsoil and 0.3m and 0.8m of subsoil. Recommended soil placement depths are 0.23m for topsoil and 0.2m for subsoil. Soil within the Eastern Salt Pan and subsoils within the Blanchetown Clay will not be stripped.

Based on the above, there is sufficient soil for rehabilitation operations.





Finally, the Project will result in an increase in the area of higher capability land when compared with the pre-mining landforms.

Aboriginal Heritage

The Aboriginal Cultural Heritage Assessment was undertaken by OzArk (2024a) in consultation with the local Aboriginal community.

The assessment identified 143 sites with Aboriginal objects, including:

- 84 isolated finds;
- 52 artefact scatters with low density subsurface deposits;
- six artefact scatters with hearth/s; and
- one artefact scatter and a scarred tree.

Of the 66 Aboriginal Sites that will be disturbed by the Project:

- 62 sites will be totally effected;
- 3 sites will be partially effected; and
- 78 sites will be preserved.

One site included an open scatter with a scarred tree, a rare occurrence in this environment. At the request of the Aboriginal community, RZ Resources agreed to fence and preserve this site. A further two sites containing three hearths will be tested for dating in order to further develop understandings of the regional chronology of Aboriginal occupation.

Traffic and Transportation

The traffic impact assessment undertaken by Tonkin (2024) determined that the following upgrades to the public road network will be required.

- Upgrades to intersections between Anabranth Mail Road and the Silver City Highway, Patton and Comstock

Streets, Comstock and Eyre Streets and Holten Drive and the Rail Facility Site Access Road.

- Construction of the Site Access Road, and realignment of Anabranth Mail Road.

RZ Resources will complete the required works in accordance with the Austroads Guide to Road Design and in consultation with Transport for NSW, Wentworth Shire and Broken Hill City Councils.

The traffic impact assessment determined that additional Project-related traffic movements will not result in significant adverse impacts on the public road network.

Surface Water Resources

The Mine Site is characterised by a series of internally draining surface depressions with internal drainage lines that only flow immediately following rainfall.

RZ Resources will stop clean water runoff from undisturbed land entering disturbed areas and will retain and use runoff from disturbed areas for mining-related purposes.

These will be no loss of surface water to surrounding rivers, no effects on surface water quality and no flooding-related impacts.

One farm dam within the Huntingfield Station will be relocated / reinstated and a suitable compensation agreement will be negotiated with the landholder.

Noise

The noise impact assessment undertaken by MAC (2024) determined that the Project construction and operational noise levels within the Mine Site and along the transport routes will comply with the relevant noise criteria.



The noise levels during intersection upgrade works at Patton and Comstock and Comstock and Eyre Streets will exceed construction noise criteria at the closest houses, but those works will be for a few days only and will be managed through communication with potentially affected residents.

Air Quality and Greenhouse Gas

The Air Quality and Greenhouse Gas Assessment undertaken by Northstar (2024) determined that the Project will not result in additional exceedances air quality assessment criteria.

In addition, the Project will contribute approximately 0.036% of total greenhouse gas emissions generated in NSW and approximately 0.01% of total greenhouse gas emissions generated in Australia. In recognition of the importance of managing greenhouse gas emissions, RZ Resources will ensure that a minimum of 30% of the Project's power during mining is sourced from renewable sources, with a commitment to increase that percentage where practicable during the life of the Project.

Agricultural Resources

The agricultural impact assessment undertaken by SSM (2024) determined that the agricultural use of the total area of disturbance within the Mine Site is currently valued at approximately \$50,414pa. As only a small proportion of the area will be disturbed at any one time, and the land will be returned, post-mining, to its former state or for conservation, actual impacts on agricultural production will be substantially less than the value calculated.

Hazards and Public Safety

The Rare Earth Concentrate Plant will produce up to 7,500tpa of Monazite Product which is classified as Class 7 (Radioactive

Material) under the Dangerous Good Code. The material will be stored in 205L drums or bulk bags inside sealed shipping containers. The sealed shipping containers will be stored within a secure storage area within the Mine Site prior to transportation to the Rail Facility using licenced drivers and vehicles. Within the Rail Facility, the sealed containers will be similarly stored within a secure storage area prior to onward transportation. Given the proposed controls, radiation-related risks associated with the Project will be acceptable.

In addition, the hazards and public safety assessment determined that the proposed management and mitigation measures are expected to adequately address risks from unauthorised access, radiation, and bushfire. A screening analysis for diesel and liquified natural gas determined that the Project will be classified as non-hazardous.

Historic Heritage

Three historic heritage sites were identified by OzArk (2023b) within the Mine Site. These sites will not be disturbed. As a result, historic heritage-related impacts will be negligible.

Visibility

Based on the relative isolation of the Mine Site both from surrounding residential locations and public vantage points, combined with the fact that the local landforms comprise low rolling hills with scattered vegetation that do not provide a suitable elevated vantage point but serve to obscure distant views, it is assessed that the Project will not impact significantly on the visual amenity surrounding the Mine Site.

Social Impacts

A comprehensive program of community engagement was undertaken, and a range of feedback has been received. In particular, the



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community in close proximity to the Mine Site was particularly concerned about the effect on their way of life, road infrastructure, agricultural operations, and potential groundwater-related impacts. By contrast, those living further from the Mine Site were mostly positive about the Project, citing potential employment, economic activity, and diversification of the local economy as likely positive contributions.

A range of community engagement and enhancement strategies are proposed to maximise the social benefit of the Project including:

- Negotiation of commercial agreements with all directly impacted landholders.
- Negotiation of Good Neighbour Agreements with all fence line neighbours and landholders in vicinity of the Site Access Road, Anabranche Mail Road and Nulla Road.
- Negotiation of Planning Agreements with Wentworth Shire and Broken Hill City Councils.
- A commitment to train and employ local residents and source goods and services from local businesses.

The Social Impact Assessment concluded that with the exception of those whose land will be directly effected by the Project, social impacts will largely be positive.

Economic Benefits

The economic assessment determined that the Project will contribute the following economic benefits to Wentworth and surrounding areas.

- Up to 480 direct full-time equivalent employment positions during construction and 240 positions during operations.

- Up to \$1.23 billion in capital expenditure during construction and up to \$89.24 million per year during operations.
- Additional output within the Wentworth LGA of up to \$1.28 billion during construction and an average of \$628 million per year during operations.
- Up to approximately \$769 million in taxes and royalties over the life of the Project to State and National governments, with additional payments to Wentworth and Broken Hill Councils.

Furthermore, RZ Resources has committed to ensuring that the economic benefits of the Project are retained, to the extent practicable, within the Wentworth LGA and surrounding areas to the through the fact that the Project's workforce will preferentially reside locally, and that RZ Resources will preference local residents in employment and local businesses for the supply of goods and services.

As a result, the Proponent contends that the economic benefits to the local, State and National economies substantially exceed potential costs.

Evaluation and Justification of the Proposal

The proposed Copi Mineral Sands Project has been evaluated and justified principally through consideration of its potential impacts on the environment and potential benefits to the local and wider community.

An evaluation of the Proposal has been undertaken by firstly reviewing the Project against the strategic context and demonstrating its compliance with relevant statutory requirements. The Project was also assessed for compliance with community



views and the principles of ecologically sustainable development. Finally, the Project has been assessed against a range of biophysical considerations.

Based on the above, RZ Resources contends that the Project, as proposed, represents the most efficient design that minimises, to the greatest extent practicable, adverse environmental and other factors while maximising the benefits to the local, Regional, State and National economies.

Conclusion

The Project has, to the extent feasible, been designed to address all issues raised by the local community and all levels of government, as well as the principles of ecologically sustainable development. The Project provides for the extraction of a valuable resource in a sparsely populated area within a Local Government Area that has a range of economic and other challenges. The Project will assist to offset some of these challenges through the creation of local employment and expenditure.

The social impacts of the Proposal are also considered to be largely positive, with perceived social impacts able to be managed.

In light of the conclusions included throughout this *Environmental Impact Statement*, it is assessed that the Project could be constructed and operated in a manner that will satisfy all relevant statutory goals and criteria, environmental objectives and reasonable community expectations.