7. Justification of the Amended Project

7.1 Introduction

A comprehensive justification of the Project as exhibited was provided in Section 7 of the EIS.

The proposed amendments are required to address:

- land access related issues;
- an amended intersection design for the Anabranch Mail Road and Silver City Highway intersection;
- further analysis of the ore deposit and the proposed mining methodology; and
- proposed direct road transportation of Monazite Product to port in South Australia.

In light of the above, the Applicant contends that the Amended Project remains largely consistent with the Project as exhibited and the previously identified environmental outcomes would remain generally unchanged or would be reduced. There are no additional environmental impacts introduced that have not previously been identified and assessed. In addition, the proposed amendments would be consistent with the Statutory and Strategic context of the Project as exhibited.

Section 5 of the *Submissions Report* provides an updated justification of the Project incorporating issues raised in the submissions. The following subsections update the evaluation of the Amended Project in the context of the proposed amendment including a summary of the outcomes of the proposed amendment and consideration of the principles of ecologically sustainable development and the mandatory considerations specified in Section 4.15(1) of the *Environmental Planning and Assessment Act 1979*.

7.2 Actions Taken to Avoid / Minimise Impacts

The following actions have been implemented to avoid and minimise additional impacts associated with the amended Project.

- Mining operations would be undertaken within Warwick and Nulla Stations only. Huntingfield, Sunshine and Belmore Stations would be removed from the Mine Site and no surface disturbing activities would be undertaken within those properties.
- Additional mineral resources have been identified and the mine plan adjusted to ensure that the amended Project would have a similar mine-life and would extract a similar volume of heavy mineral as the Project as exhibited.
- Ensuring that the amended Project would remain within the originally proposed Limit of Disturbance within Warwick and Nulla Stations.

- As a result of the above, the amended Project would result in similar benefits to the Project as exhibited while resulting in substantially reduced environmental impacts.
- The proposed intersection between the Silver City Highway and Anabranch Mail Road would be upgraded from the originally proposed Basic Auxiliary Right / Basic Auxiliary Left (BAR/BAL) to a Channelized Right / Axillary Left (CHR/AUL) intersection.
- The width of the linear corridor has been reduced from 90m to 42m, resulting in a reduction of the area of disturbance from approximately 352ha to 219ha.
- The proposed depth of topsoil and subsoil to be placed on the final landform has been increased from 40cm to 70cm, with an associated reduction in risks associated with revegetation and rehabilitation operations.
- The Temporary Overburden Emplacement was redesigned from a structure with a maximum elevation of approximately 70m AHD to one with a maximum elevation of 48m AHD, thereby ensuring that the emplacement is not visible from Residence R1 and reducing the bulk significance of the structures in the landscape.

7.3 Consistency with Strategic Context

Sections 2.2 and 2.3 presents an overview of the key Government Strategies, Policies and Plans relevant to the Project as they apply to the amended Project. In summary, the Amended Project would be consistent with the Strategic Context of the Project as exhibited. V

7.4 Compliance with Statutory Requirements

7.4.1 Introduction

Section 4 and **Appendix 2** provide an overview of the Statutory Context of the Amended Project and the Project as exhibited. The following subsections address relevant statutory requirements that have not been addressed elsewhere in the documents.

7.4.2 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) is the principal legislation regulating development in NSW. Development consent for the Project is being sought under Part 4, Division 4.7 of the EP&A Act as a State Significant Development (SSD). Section 4.15(1) of the EP&A Act describes the matters for consideration by a consent authority in evaluating a Project for determination. **Appendix 2** identifies where each matter has been addressed in this document.

Section 1.3 of the EP&A Act presents the objects of the Act. **Table 7.1** presents each of the objects of the Act and identifies how the Amended Project is consistent with each.

Table 7.1
Objects of the EP&A Act

Object	Consistency with the Project as Exhibited	Consistency with the Amended Project
The objects of this Act are as follows.		
a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources	The amended Project would promote the social and economic welfare of the community and a better environment through the orderly and professional development and operation of the Project. At all stages of the Project's design and planning, the social and economic outcomes that would be experienced by the community have been considered. In addition, the Project has been designed to avoid environmental impacts to the greatest extent practicable. Where residual impacts are identified, the Project has demonstrated they can be mitigated or managed to an acceptable level. Multiple technical assessments over an extended period have resulted in the Project's refinement to minimise environmental and other impacts and to maximise the overall benefits provided by the Project. It is therefore considered that the Project achieves this objective.	The Amended Project demonstrates the Applicant's commitment to proper and effective management, planning, development, and conservation of the land and resources within the Project Site. Section 7.2 identifies the actions taken since exhibition of the EIS to minimise the environmental and other impacts of the Project while still achieving the economic and social benefits that the Project would deliver.
b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	Section 7.5.2 of the EIS discusses how the Project is consistent with the principles of ecologically sustainable development. The Project has been subject to thorough technical assessment to understand the existing setting, predict potential impacts and identify those matter that require additional measures to manage the risk of impact. It is considered that the Project would be developed in an efficient manner that will take into account the value of environmental and social resources to the local and regional community both now and in the future.	Section 7.6 discusses the Amended Project in the context of the principles of ecologically sustainable development. The Amended Project has been designed in consideration of maximising the benefit of existing proposed disturbance areas in order to minimise the potential impacts as far as practicable.
c) to promote the orderly and economic use and development of land,	Detailed technical assessment has been undertaken to understand the existing setting including through comprehensive exploration programs and assessment of geotechnical characteristics. This has permitted the Applicant to design a Project that not only maximises the economic use of the land but also provides for the appropriate planning and staging of progressive rehabilitation, staffing and supplies and which also considers the economic stimulus the Project would provide to the local and regional communities. In this regard, the detailed planning and design undertaken by the Applicant would ensure that the Project is developed to promote the orderly and economic use and development of the Mine Site.	The design of the Amended Project has been developed to minimise as far as practicable the economic and environmental impacts of the Amended Project as a whole.

Table 7.1 Cont'd)
Objects of the EP&A Act

Object	Consistency with the Project as Exhibited	Consistency with the Amended Project
d) to promote the delivery and maintenance of affordable housing,	Whilst not directly relevant to the Project, it is not expected that the supply and availability of housing in the region would significantly change due to the anticipated employment benefits of the Project. A Mine Camp would be established that would allow for accommodation availability that does not put excessive strain on local housing stock.	The Amended Project is not likely to affect the delivery and maintenance of affordable housing.
e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats	Consideration of residual impacts to biodiversity values has been undertaken in accordance with the *Biodiversity Conservation Act 2016* (BC Act). Direct disturbance of native vegetation and potential native fauna habitat has been minimised to the greatest extent practicable to reduce the need for impact to biodiversity values. This has been achieved through a redesign of the Mine Site layout in order to avoid 17.01ha of known *Austrostipa nullanulla* habitat. An offsetting strategy would ensure that residual biodiversity impacts are offset in accordance with the requirements of the BC Act.	The design of the Amended Project has been developed to minimise as far as practicable the environmental impacts of the Amended Project as a whole. The Amended Project has substantially reduced the area of Project-related disturbance, with the associated reduction in native vegetation disturbed by the Project.
f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	The Project would require the salvage of Aboriginal artefacts from approximately 66 sites. Three of these sites would be excavated to obtain hearth samples for dating to further the understanding of the chronology of Aboriginal occupation. A further 77 sites would be avoided and protected from inadvertent disturbance over the Project life. The Aboriginal sites to be disturbed would be managed in accordance with an approved *Aboriginal Heritage Management Plan* prepared in consultation with the local Aboriginal community. One site (Copi OS-1) would be fenced and preserved in the landscape due to the significance of a culturally modified tree. The Project would conserve the three historic heritage sites that are within the Mine Site. It is not anticipated that the Project would significantly constrain the sustainable management of built and cultural heritage.	The Amended Project would result in an overall reduction of impacts to Aboriginal artefact sites compared with the Project as exhibited. The Amended Project would require the salvage of Aboriginal artefacts from approximately 55 sites and would avoid 88 sites.
g) to promote good design and amenity of the built environment,	The upgraded roads and intersections would be designed and constructed in accordance with requirements of the Austroads Guide to Road Design in consultation with Wentworth Shire and Broken Hill City Councils and Transport for NSW. The Project would result in construction of the Site Access Road and substantial upgrading of a section of Anabranch Mail Road, which would improve access to the Silver City Highway for a limited number of local residents.	The Amended Project would not include any changes to the built environment compared to the Project as exhibited.

Table 7.1 (Cont'd)
Objects of the EP&A Act

Object	Consistency with the Project as Exhibited	Consistency with the Amended Project
h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	Project-related buildings and other structures would be constructed in accordance with the relevant Australian Building Code and all required construction and occupation certificates would be obtained. These buildings would be carefully located to permit their necessary function while providing reasonable access and facilities to maintain the health and safety of occupants.	The Amended Project would not include any additional structures compared to the Project as exhibited.
i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	The assessment requirements addressed in this EIS include feedback from Broken Hill City Council, Wentworth Shire Council and relevant State government agencies.	The Applicant continues to maintain open communication with all relevant Government agencies.
j) to provide increased opportunity for community participation in environmental planning and assessment.	Sections 5 documents the extensive community consultation and engagement activities that have been undertaken during the design and planning for the Project. Furthermore, the Applicant has committed to ongoing community consultation and stakeholder engagement post-approval and over the Project life.	Section 5 of this document describes the engagement undertaken since exhibition of the EIS.

7.4.3 Wentworth Local Environmental Plan 2011

The principal local planning instrument for the Project is the *Wentworth Local Environmental Plan (LEP) 2011* with the Mine Site being situated on land zoned as RU1 – Primary Production. The proposed upgraded intersection of Anabranch Mail Road and the Silver City Highway is located on land Zoned SP2 – Infrastructure. Section 4.3 addresses matters relating to the permissibility of the Project with **Table 4.1** identifying where matters related to the applicable Clauses within the Wentworth LEP are addressed in this document. **Table 7.2** presents an assessment of the Project against the objects of each of the RU1 – Primary Production zone.

Table 7.2
Wentworth LEP Zone Objectives

Object	Consistency with the Project as Exhibited	Consistency with the Amended Project
Zone RU1 – Primary Production		
To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.	The Project would temporarily remove 3,782 ha of Class 6, low capability land from agricultural production. This land is estimated to have a stock carrying capacity of 0.31 dry sheep stocking equivalent (DSE) per hectare. SSM (2024) estimate the existing Class 6 land as having an annual gross margin of $50,414. During mining operations, the gross margin of the Project would be substantially greater than $50,414pa. Following rehabilitation of the Mine Site, Class 6 land should retain a carrying capacity of 0.31DSE/ha. The Project would result in a 413ha increase in the area of Class 6 land and 455 ha and a commensurate reduction in land of a lower class. As a result, the post-mining agricultural annual gross margin of that land would increase as a result of rehabilitation.	The Project would progressively remove 2,508ha of Class 6, low capability land from agricultural production. This land is estimated as having an annual gross margin of $50,414. During mining operations, the gross margin of the Project would be substantially greater than $30,622. The final landform would include 3.070ha of Class 6 land, an increase of 561ha. As a result, impacts on agriculture as a result of the amended Project are expected to be minimal.
To encourage diversity in primary industry enterprises and systems appropriate for the area.	The Project represent a diversification of primary production activities within the RU1 zone. In addition, the Project would implement best-practice rehabilitation techniques to restore agricultural productivity post-mining. The Project would also provide opportunities for the Applicant and others to diversify agricultural practices within and surrounding the Mine Site.	The Amended Project would similarly represent a diversification of primary production activities within the RU1 zone.
To minimise the fragmentation and alienation of resource lands	The Applicant, through consultation with existing landholders, has ensured that the Project would not fragment agricultural land. In addition, as mining would be undertaken progressively, the Project would not alienate agricultural land nor prevent stock and equipment from accessing areas to the north or south of if the mine path.	The Amended Project would not fragment agricultural land.
To minimise conflict between land uses within this zone and land uses within adjoining zones.	The Project, has to the extent practicable, been designed to avoid land use conflicts within this zone. In particular, the Applicant has consulted with surrounding landholders in relation to amenity-related impacts and has and would implement a range of measures to minimise potential land use conflicts. There would be no conflict with adjoining zones (see below)	The Amended Project would result in reduced land use conflict compared with the Project as exhibited as the proposed activities would be undertaken within Warwick and Nulla Stations only. There would be no disturbance of Huntingfield or Sunshine Stations and no requirement to close or relocate Nulla Road.

Table 7.2 (Cont'd)
Wentworth LEP Zone Objectives

Object	Consistency with the Project as Exhibited	Consistency with the Amended Project
Zone RU1 – Primary Production (Cont'd)		
To encourage and promote the growth and diversification of economic and employment opportunities in agriculture, horticulture and tourism.	The Project would provide valuable off farm income source for local residents and others, thereby supporting and diversifying surrounding agricultural operations.	The Amended Project would similarly provide valuable off farm income source for local residents and others.
To enable the development of restaurants and cafes and kiosks as part of agritourism development.	This objective is not relevant to the Project.	This objective is not relevant to the Amended Project
Zone SP2 – Infrastructure		
To provide for infrastructure and related uses.	The proposed intersection upgrades would be consistent with this objective.	The Amended Project would result in the construction of an intersection of a higher design standard compared with the Project as exhibited.
To prevent development that is not compatible with or that may detract from the provision of infrastructure.	The proposed intersection upgrades would enhance the provision of road infrastructure and improve access for surrounding landholders to the local area.	The Amended Project would similarly enhance the provision of road infrastructure and improve access for surrounding landholders to the local area.

7.4.4 Broken Hill Local Environmental Plan 2013

The Rail Facility is located within the Broken Hill LGA and is located within land zoned SP1 – Special Activities (Mining) and SP2 – Infrastructure. The amended Project would not result in additional activities within the Broken Hill LGA, with the exception of the use of an existing heavy vehicle route through the western section of the city. As a result, there would be no changes to the assessment against the objectives of the Broken Hill LEP presented in Table 7.3 of the EIS.

7.5 Consistency with Community Views

Section 5.2 presents an overview of engagement undertaken since the exhibition of the EIS. In summary, the Applicant has consulted with a range of neighbouring landholders and others during that period. The community's views may be summarised as follows.

- Landholders within and adjacent to the Mine Site are well aware of the Project and the Applicant has consulted over an extended period with each of them. In some cases, commercial agreements have been signed, agreed upon or are in the progress of being negotiated. In the majority of cases, the landholders are generally satisfied with the manner in which the Applicant has undertaken its activities and acknowledges the benefits that development of the resource would bring. However, issues related to the following remain areas of concern for the community.
  - Groundwater impacts, in particular potential impacts to Lake Victoria, contamination of surface water by saline groundwater.

  - Radiation, in particular impacts to humans and livestock.
  - Consultation with the Aboriginal community.
  - Amenity impacts, including those related to noise and air quality.
  - Biodiversity impacts and potential biodiversity offset agreements.
  - Rehabilitation and liability in the event that rehabilitation operations are not successful.
- The Applicant and the owner of a neighbouring property remain in dispute and the Project has been amended to exclude disturbance of that property.
- Those living further from the Mine Site remain mostly positive about the Project, citing potential employment, economic activity and diversification of the local economy as likely positive impacts.
- The Wentworth community is well aware of the Applicant's existing operations within the Mine Site and the Project more broadly. The community is generally supportive of the Project, with most interactions with community members related to when the Project will commence and employment or business opportunities.

Overall, the Applicant contends that with limited exceptions, the Project has a high degree of community support and the views of the community have been sought and appropriately addressed.

7.6 Scale and Nature of Anticipated Impacts

7.6.1 Introduction

The Project has been the subject of detailed review, refinement and assessment during design, planning and the preparation of this EIS and this Amendment Report. The following subsections provide a discussion of how the Project is consistent with the principles of ecologically sustainable development and a summary of the anticipated biophysical, social and economic impacts of the amended Project, assuming the implementation of the proposed mitigation and management measures.

7.6.2 Ecologically Sustainable Development

Section 7.5 of the EIS presents a detailed analysis of the Project as exhibited in consideration of the principles of ecological sustainable development as well the anticipated biophysical, social, and economic impacts. Section 6 identifies that the Amended Project is not likely to result in any additional biophysical impacts that were not considered as part of the EIS. **Table 7.3** presents the Amended Project in consideration of the principles of ecologically sustainable development.

Table 7.3
Principles of Ecologically Sustainable Development

Principle	Consistency with the Amended Project
The Precautionary Principle	The Amended Project has been designed to ensure that in addition to removing proposed disturbance from Huntingfield and Sunshine Stations, with no additional disturbance within Warwick and Nulla Stations compared to that presented in the EIS. In addition, the additional time since exhibition of the EIS has allowed for the following, each of which provide additional scientific certainty in relation to the anticipated impacts of the Project. • Groundwater – additional information in relation to the aquifer parameters has allowed for a revised groundwater model and impact assessment. • Biodiversity – a very substantial amount of additional biodiversity data has been collected and a revised BDAR has been prepared. • Additional greenhouse gas modelling has been undertaken to more accurately predict greenhouse gas emissions from the amended Project. • Additional, highly detailed radiation assessment has been undertaken to more accurately predict radiation-related impacts.
Inter-generational Equity	The Amended Project would ensure that the economic and social benefits of the Project as exhibited would largely unchanged despite a very substantial reduction in the area of land that would be disturbed.
Conservation of Biological Diversity	The Amended Project result in substantially reduced impacts to biodiversity values.
Improved Valuation, Pricing and Incentive Mechanisms.	The design of the Amended Project has as far as practicable incorporated existing proposed infrastructure and/or disturbance areas of the Project Site as exhibited.

7.6.3 Biophysical Considerations

7.6.3.1 Introduction

Section 6 provides an assessment of impacts on key biophysical considerations within and surrounding the Mine Site because of the Amended Project. The following subsections provide an overview of those assessments and residual biophysical impacts associated with the amended Project.

7.6.3.2 Groundwater Resources

The amended Project's Groundwater Assessment was completed by GEO-ENG (2025) 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 would 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, maximum annual groundwater take from the Upper Aquifer would be approximately 7.8GL in Year 1. Once the dredge pond has been established and routine mining operations have commenced, groundwater take during Years 2 to 18 would vary between 2.2GL/year and 2.9GL/year before decreasing to 0.8ML/year in Year 19, the first year of post-mining rehabilitation. Groundwater take during Year 20 and after would be limited to that required for rehabilitation operations.

There are four registered groundwater bores in the within the zone of groundwater depressurisation/drawdown in the Upper Aquifer. Two of those bores would be decommissioned and plugged during mining operations, including a NSW government monitoring bore. That bore would be reconstructed in an alternative location. An additional Project-related bore would also be decommissioned and removed during mining operations. The other two bores are located on neighbouring properties and are screened within the Middle Aquifer. GEO-ENG (2025) indicates that neither bore could be located on the ground. As a result, the Project would not impact on the operation of either bore.

The impact to surrounding groundwater dependent ecosystems has been assessed by BioAus (2025a) who determined that the most salt tolerant species that occurs within the Mine Site would likely be unable to utilise groundwater of the salinity of the Upper Aquifer. As a result, impacts to groundwater dependent ecosystems are not anticipated.

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

Project-related impacts to important water storages, including Lake Victoria, are not expected because the zone of groundwater depressurisation/drawdown would be restricted to the area immediately surrounding the Mine Site and these water storages lie well outside that zone. In addition, impacts to local farm dams surrounding the Mine Site are not expected because those dams are located well above the groundwater table and would therefore not be impacted by any Project-related changes to the water level within the upper aquifer.

Finally, RZ Resources would source licences for a groundwater take of up to 7.8GL/year, noting that the water to be extracted is hypersaline and has no other beneficial use.

7.6.3.3 Biodiversity

The biodiversity assessment was completed by BioAus (2025a) 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 Development Footprint).

- A total of thirteen PCTs of Low-Moderate and Low condition, with eleven occurring within the Disturbance Footprint - Mine Site and six in the Disturbance Footprint - Linear Corridor.

- One Endangered flora species, Austrostipa nullanulla, and one threatened fauna species, Pink Cockatoo (Lophochroa leadbeater) were found present in the Disturbance Areas.

The Project would result in the disturbance of the following.

- 3,883.08ha of native vegetation.
  - 3,692.92ha located within the Disturbance Footprint - Mine Site; and
  - 190.16ha located within the Disturbance Footprint - Linear Corridor.
- Direct impacts to 3.84ha of *A. nullanulla.*
- 135.88ha of PCT 253 and associated gypsum soils.
- Temporary removal of salt pans.

RZ Resources would retire 78,697 ecosystem credits and 638 species credits using one or more Stewardship Sites or through purchase of the required credits from third parties, with any residual credit requirements retired via a payment into the Biodiversity Conservation Fund.

7.6.3.4 Soils and Land Capability

The soils within the Mine Site were mapped by SSM (2025) who identified six soil associations as follows.

- Dunefield and Sand Plains-Dunes - primarily occupying areas of higher elevation
- Dunefield and Sand Plains-Swales – also primarily occupying areas of slightly lower elevation between the dunes.
- 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.

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 1m of subsoil. Soil within the Lake Floor East and subsoils within the Blanchetown Clay will not be stripped. Recommended soil placement depths are 0.23m for topsoil and 0.47m for subsoil.

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

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

7.6.3.5 Aboriginal Heritage

The amended Aboriginal Cultural Heritage Assessment was undertaken by Ozark (2025) in consultation with the Aboriginal Community.

The assessment identified 143 sites of Aboriginal Heritage significance, including:

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

Of the 143 identified sites that would be disturbed by the Project:

- 54 would be totally impacted;
- 1 would be partially impacted; and
- 88 would be preserved

Two sites containing three hearths would, at the request of the Aboriginal community, be tested for dating in order to further develop understandings of the regional chronology of Aboriginal occupation.

7.6.3.6 Traffic and Transportation

The amended traffic impact assessment undertaken by Tonkin (2025) determined that the following upgrades to the public road network would be required.

- Upgrades to intersections between Anabranch 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 Anabranch Mail Road.

RZ Resources would 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 would not result in significant adverse impacts on the public road network.

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

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

7.6.3.8 Noise

The amended noise impact assessment undertaken by MAC (2025) determined that the Project construction and operational noise levels surrounding the Mine Site and along the transport routes would comply with the relevant noise criteria.

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

7.6.3.9 Air Quality

The updated air quality assessment undertaken by Northstar (2025a) determined that Project related exceedances of air quality assessment criteria would be negligible.

7.6.3.10 Greenhouse Gas

The Greenhouse Gas assessment undertaken by Northstar (2025b) found that the emissions intensity of the Project is comparable to other mineral sands projects and that the emissions reduction trajectories required by the NSW Government to meet net zero commitments would not be compromised by the Project.

7.6.3.11 Agricultural Resources

The amended agricultural impact assessment undertaken by SSM (2025) determined that the agricultural use of the total area of disturbance within the Mine Site would currently have a gross margin of approximately $30,622pa. 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 may be substantially less than the value calculated.

7.6.3.12 Radiation

The radiation assessment was prepared by DBH Radiation Pty Ltd who prepared two assessments, namely a *Public Radiation Risk Assessment* (DBH, 2025a) and an *Assessment of Environmental Radiation Impacts (Non-Human Biota)* (DBH, 2025b).

DBH (2025a) determined, based on a series of highly conservative assumptions, that the annual dose of a person residing at Residence R1 or the Huntingfield Homestead would be 9.3µSv. This compares with the annual dose limit determined by the Australian Radiation Protection and Nuclear Safety Agency of 1,000µSv. For context, the natural background annual radiation dose is estimated to be approximately 1,500µSv per year.

DBH (2025b) determined, also based on highly conservative assumptions, that the highest dose rate for biota surrounding the Mine Site would be 0.18µGy/h. This compares with the Tier 1 screening value for biota of 10µGy/h.

7.6.3.13 Visibility

The visual assessment was completed by RWC. In completing that assessment, it is acknowledged that visual amenity impacts are highly subjective and changes views that may be acceptable to one person may have a significant impact on another.

The visual impact assessment concluded that the Project would result in the following potential changes to the visual amenity surrounding the Mine Site.

- Movement of mobile plant within the Mine Site.
- The Temporary Overburden Emplacement would be visible from sections of Nulla Road and private land surrounding the Mine Site.
- Fixed plant, in particular the Rare Earth Concentrate Plant, may be visible, from Nulla Road, albeit at a distance of approximately 10km.
- Changed landforms, including the dredge pond, Off Path Storage Facility and the rehabilitated final landform would be visible from sections of Nulla Road, Residence R1 and surrounding landholdings.
- Raised dust from the movement of mobile plant may be visible during the day from sections of Nulla Road and Residence R1.
- Condensed steam emissions from the Rare Earth Concentrate Plant driers may be visible during periods of cool or humid weather.
- Direct and indirect views of lights from mobile or fixed plant may be visible at night from sections of Nulla Road and Residence R1.

The Temporary Overburden Emplacement is likely to be the component of the Mine Site that would have the greatest change to the visual landscape surrounding the Mine Site. In summary, that structure would be visible from the southeastern section of the Huntingfield Station, as well as sections of Nulla Road. The Temporary Overburden Emplacement would not be visible from Residence R1.

7.6.3.14 Social Impacts

The updated Social Impact Assessment was prepared by Social Aspect Consulting Pty Ltd (Social Aspect, 2025). That assessment determined that the amended Project would generally result in reduced social impact when compared with the Project as exhibited. It was noted that trustworthiness of the Applicant was identified as a negative impact on community in the EIS submissions. Commentary on this issue in the EIS submissions was more prominent than in the data analysed for the original SIA. It was identified that these submissions followed range of problematic interactions between the Applicant and a landholder during exploration activities and the EIS development period. While noting that the proposed amended Mine Site would no longer directly impact on that landholder's land, Social Aspect (2025) determined that the amended Project would create a social impact of medium significance for the landholder.

7.6.3.15 Economic Benefits

The Economic Impact Assessment was prepared by Synergies (2025). That assessment determined that the Project would contribute the following economic benefits.

- Up to 480 direct full-time equivalent employment positions during construction and 240 positions during operations.
- A net present value of $723 million over the life of the Project.
- A net benefit to NSW of $214 million, including $160 million in taxes and $126 million in royalties.
- Non-labour expenditure within the Wentworth LGA of $207 million during construction and between $54.5 million and $97.62 million each year during operations.
- Additional output within the Wentworth LGA of up to $1.28 billion during construction and $8.3 billion during operations.
- Support for 514 full time equivalent (FTE) positions during construction and 580 FTE positions during operations within the Wentworth LGA.

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. The Project's workforce would preferentially reside locally, and RZ Resources would provide preference to local residents in employment and local businesses for the supply of goods and services.

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

7.7 Compliance Monitoring and Communication

The Amended Project would not require any changes to the existing and proposed environmental monitoring and management measures as presented in the EIS, nor the communication of those measures following commencement.

7.8 Remaining Uncertainties

A number of remaining uncertainties identified for the Project as exhibited remain current to the Amended Project.

As identified in the EIS, a wide range of measures have been implemented to identify potential Project-related risks and substantial and detailed technical and environmental studies have been undertaken to inform the design of the Project as exhibited. In addition, the Applicant has consulted widely with Government agencies and the surrounding community. As a result, the Applicant contends that it has adequately identified and addressed all substantive Project-related risks and environmental issues.

Throughout the assessment of the Project as exhibited, the Applicant has consistently assessed the worst-case scenario for each of the identified risks and environmental issues. As a result, the Applicant contends that there is limited potential for unanticipated Project-related impacts greater than those assessed, including for the Amended Project. Notwithstanding this, **Table 7.4** presents remaining Project-related uncertainties that may result in impacts greater than those assessed, and the mitigation measures proposed to manage each.

Table 7.4
Remaining Uncertainties and Proposed Mitigation Measures

Remaining Uncertainty	Proposed Mitigation Measure(s)
Additional ore may be discovered, requiring additional time, modified rate of processing, modified mining methods or disturbance areas.	• Apply for a modification or new development consent.
Rehabilitation operations may not achieve the proposed completion criteria identified in this document or any subsequent Rehabilitation Management Plan.	• Obtain the advice of suitably qualified expert(s) and implement the resulting recommendations to achieve the proposed criteria.
Surface water flows, including incident rainfall, may be greater than those assessed, resulting in failure of surface water control structures and/or discharge of water to natural drainage.	• Inspect all surface water control structures following rainfall and ensure that all surface water storages are managed in accordance with the revised and approved Water Management Plan.
The extent of groundwater extraction or impacts to surrounding groundwater users may be greater than that predicted and assessed.	• Install and maintain meters at all points of groundwater extraction and return and undertake monthly reconciliations of all metered volumes, • Monitor evaporation and rainfall within the Mine Site and use that data to estimate evaporative losses and ensure that those losses, together with water pumped from the production bores are appropriately licenced. • Monitor standing water levels in surrounding monitoring bores. • Regularly review standing water level monitoring results against the groundwater modelling predictions and, if required, revise the modelling using collected data. • Obtain suitable water access licence allocations to account for any additional groundwater take identified from the modelling or metering.
Noise or air quality emissions maybe greater than those assessed and impacts at surrounding residences may be greater than anticipated.	• Monitor air quality emissions and commission noise monitoring in response to any noise-related complaints or reasonable enquiries. Modify Project-related activities to ensure compliance with relevant criteria.
Unanticipated Aboriginal or historic heritage objects may be identified.	• Implement the proposed Unanticipated Finds Protocol for both Aboriginal and historic heritage objects.

7.9 Consequences of not proceeding

Section 7.8 of the EIS presents the consequences of not proceeding with the Project as exhibited. The identified consequences would remain unchanged as a result of the proposed Amendments.

7.10 The Public Interest

Section 4.15(1)(e) of the *Environmental Planning and Assessment Act 1979* requires a consent authority to consider the "public interest" in determining an application for development consent. The public interest is generally difficult to define as it depends on contextual factors and intangible and variable matters such as public opinion and public need. It therefore requires a balancing of public expectations of impacts and benefits, as well as support and opposition, but may also be considered in terms of the principles of ecologically sustainable development and the aims or 'objects' of the guiding legislation for the application (in this case, the *Environmental Planning and Assessment Act 1979*).

There is clear, supporting evidence for the employment and other economic opportunities that the Project would provide, with adverse impacts associated with the amended Project principally limited to those whose land adjoins the Mine Site.

Notwithstanding the above, the Applicant contends that the Amended Project would be consistent with public interest. The Amended Project would have environmental impacts lower than those presented in the EIS.

7.11 Conclusion

The Amended Project remains consistent with the outcomes of the comprehensive and extensive environmental impact assessments undertaken for the Project as exhibited. This Report has shown that the Amended Project:

- has been designed in a manner that minimises the potential environmental impacts as far as reasonably practicable;
- is consistent with the Statutory and Strategic context of the Project as exhibited;
- would not result in any additional significant environmental impact; and
- would not require any additional environmental monitoring, management and mitigation measures as proposed in the EIS for the Project as exhibited.

The Amended Project is the result of the iterative planning and design of the overall Project and demonstrates the Applicant's commitment to continual refinements in response to the results of ongoing technical and environmental assessments. The Amended Project, as presented, provides an acceptable balance of environmental and social outcomes in achieving the economic benefits. In addition, the Amended Project would not negatively impact on the legacy of the final rehabilitation and land use of the Project Site.