



Sunrise Mine Project Modification 7 - Design Changes

State Significant Development Modification Assessment (DA374-11-00 MOD 7)

Planning Secretary's Assessment Report

January 2022



Published by the NSW Department of Planning and Environment

dpie.nsw.gov.au

Title: Sunrise Mine Project: Modification 7

Subtitle: Design Changes

Cover image: Sunrise Project Execution Plan Modification – Appendix D – Road Transport Assessment (The Transport Planning Partnership, June 2021)

© State of New South Wales through Department of Planning and Environment 2022. You may copy, distribute, display, download and otherwise freely deal with this publication for any purpose, provided that you attribute the Department of Planning and Environment as the owner. However, you must obtain permission if you wish to charge others for access to the publication (other than at cost); include the publication in advertising or a product for sale; modify the publication; or republish the publication on a website. You may freely link to the publication on a departmental website.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (January 2022) and may not be accurate, current or complete. The State of New South Wales (including the NSW Department of Planning and Environment), the author and the publisher take no responsibility, and will accept no liability, for the accuracy, currency, reliability or correctness of any information included in the document (including material provided by third parties). Readers should make their own inquiries and rely on their own advice when making decisions related to material contained in this publication.

Executive Summary

Background

The Sunrise Mine Project (Project) is an approved nickel, cobalt and scandium open cut mine located approximately 4.5 kilometres (km) north-west of Fifield and 45 km north-east of Condobolin in the Central West Region of NSW.

The Project was originally approved in 2001 and comprises several components located in three local government areas:

- an open cut mine and processing facility and a nearby accommodation camp in the Lachlan local government area (LGA);
- a limestone quarry and a rail siding in the Parkes LGA;
- a borefield near the Lachlan River in the Forbes LGA; and
- a water supply pipeline and natural gas pipeline.

The Project was physically commenced in 2006 with partial development of the borefield. However, further development of the Project was suspended due to unfavourable economic conditions, and construction of the mine and other project components has yet to commence.

Demand for nickel and cobalt has grown significantly and the Project proponent, SRL Ops Pty Ltd (SRL), is now planning to progress development of the mine to meet this demand. In preparation for this, SRL has undertaken further optimisation studies and identified a number of design and operational changes that would improve the efficiency of the Project. The company is seeking to modify the development consent for the Project accordingly.

Proposed Changes

The proposed modification involves changes to the approved mine and processing facility, accommodation camp, rail siding and road transport activities, including:

- increasing the mining production rate during the initial years of mining;
- changes to the mine site and processing facility area layouts;
- changes to the processing plant reagent types, rates and storage volumes;
- an increased number of diesel-powered backup generators from one to four;
- increasing the duration of the construction phase from two years to three years;
- increasing the peak construction phase workforce from approximately 1,000 to approximately 1,900 personnel (for approximately a two-month period) with consequent increase in the accommodation camp facilities and layout; and
- relocating the rail siding to a site approximately 500 metres to the south of the approved location and constructing and operating an ammonium sulphate storage and distribution facility on the rail siding.

The modification would not change the approved mining method; processing rate; mine life (i.e. 21 years); final design and extents of the open cut pits or waste rock emplacements; or operating hours.

Public Engagement and Consultation

The Department publicly exhibited the Modification Report from 27 July 2021 until 9 August 2021 and notified previous submitters and neighbouring landowners of the modification application.

The Department received advice from seven government agencies and submissions from Lachlan Shire Council and Parkes Shire Council. It did not receive submissions from members of the general public.

Assessment

Noise

Construction noise at the nearest sensitive receivers to the rail siding and to the mine site and processing facility is predicted to be well below the noise management levels set out in the *Interim Construction Noise Guideline*. Noise levels would also be below the noise limits in the existing Environment Protection License for the site (issued by the Environment Protection Authority).

Operational noise at sensitive receivers near the relocated rail siding is predicted to be below the existing noise limits in the development consent and below the Project Noise Trigger Levels (PNTLs) in the *Noise Policy for Industry* (2017).

However, the modified Project would result in worst case operational noise levels that are up to 3 dB(A) higher than the approved noise limits (up to 5 dB(A) above the PNTLs) at two privately-owned receivers near the mine and processing facility, and 1-2 dB(A) above the existing limits (and the PNTLs) at four other residences near the mine and processing facility.

The Department accepts that SRL has committed to all reasonable and feasible measures to reduce noise, and notes that noise that is 0-2 dB(A) above the PNTLs is not discernible by the average listener. Under the *Voluntary Land Acquisition and Mitigation Policy* (VLAMP), noise that is 3-5 dB(A) above PNTLs is characterised as moderate, however amenity impacts can be reduced by treating/upgrading affected residences.

On that basis, following advice from the EPA, the Department has recommended noise limits to reflect the predicted noise levels and afforded noise mitigation rights on request at 2 residences, and has also recommended conditions requiring SRL to operate a real-time monitoring and pro-active noise management regime at the mine site.

Traffic

The modification would change the impacts of the Project on the road network as a result of the larger construction workforce, the relocation of the rail siding and changes to the timing and nature of deliveries for construction and operations.

SRL is proposing to use shuttle buses to transport the construction workforce between surrounding towns and the mine and processing facility and rail siding. This would reduce the daily vehicle movements in the vicinity of both the mine and processing facility and rail siding (by 36% and 82% respectively).

During the operational phase, the modification would not significantly change the project-related daily vehicle movements, with the exception of increases in the vicinity of the rail siding associated with the transport of ammonium sulphate (an increase of around 36% compared to the approved traffic movements). However, this is not predicted to significantly impact the surrounding road or intersection performance.

The conditions of consent already require SRL to upgrade and contribute to the maintenance of various roads and intersections that would be used by Project traffic. The Department has recommended conditions requiring the company to also upgrade a 675 m section of Scotson Lane

(which leads to the proposed rail siding) and two additional vehicle site access points from Wilmatha Road to the mine and processing facility to improve site access safety.

The Department has included requirements for SRL to monitor and report on the use of the shuttle buses to ensure consistency with assumptions in the road traffic assessment.

Subject to the recommended conditions, the Department considers the modification's potential traffic impacts would be acceptable.

Social Impacts

The Department considers that the social impacts of the modified Project during the operational stage would not significantly increase beyond those already approved, and that the existing and proposed conditions of consent would be adequate to manage amenity impacts. However, the modification would potentially increase the demand for housing and community and medical facilities during the construction phase, and potentially impacts people's way of life, sense of safety and amenity.

The Department has recommended a new condition requiring SRL to prepare and implement a comprehensive and adaptive Social Impact Management Plan to minimise and/or mitigate negative social impacts during construction.

Other

The modification is unlikely to result in a significant increase in air quality emissions beyond those already approved as there would be no changes to the approved rate or extent of mining, processing operations or blasting activities. Modelling of air emissions from the modified Project indicates compliance with the existing air quality criteria at all private sensitive receptors surrounding the mine and processing facility and rail siding site.

The modification is not likely to significantly change the impacts of the Project on biodiversity, water resources, heritage values or visual impact beyond those which are already approved.

The Department considers that the existing conditions of consent are largely adequate to manage these impacts, although it has recommended a number of changes to contemporise the conditions, including requiring updates to the Air Quality Management Plan to include specific mitigation and management of greenhouse gas emissions, limiting irrigation to the expanded area and construction phase only, and updating the rehabilitation conditions to align with recent statutory requirements.

Evaluation

Strategically, the Department considers that the modified Project would allow the efficient recovery of nickel and cobalt sulphates to supply the growing lithium-ion battery industry, and produce low-cost scandium for use in lightweight aluminium alloys for key transportation markets.

The Department notes that the modification would result in significant additional employment opportunities during construction (from 1,000 to 1,900 personnel) and operation (335 to 340 personnel) compared to the approved Project.

On balance, the Department is satisfied that the proposed modification can be carried out in an environmentally sustainable manner and that the proposal is in the public interest as it would make it more likely that the significant socio-economic benefits of the Project would be realised. Accordingly, the Department considers that the modification can be approved.

Contents

1	Introduction	1
1.1	Background	1
1.2	Approved Project.....	1
1.3	Project Setting	3
2	Proposed Modification.....	3
2.1	Scope of Modification.....	3
2.2	Justification for the Modification	5
3	Statutory Context.....	10
3.1	Scope of Modification.....	10
3.2	Consent Authority.....	11
3.3	Mandatory Matters for Consideration.....	11
3.4	Objects of the EP&A Act	12
4	Engagement.....	12
4.1	Public Engagement and Consultation	12
4.2	Summary of Advice - Government Agencies	12
5	Assessment	18
5.1	Noise	18
5.2	Traffic	26
5.3	Social.....	31
5.4	Other Issues	34
6	Evaluation.....	41
7	Determination.....	42
	Appendices	A1
	Appendix A – List of Documents.....	A1
	Appendix B – Consideration of Objects of the Act.....	A2
	Appendix C – Notice of Modification.....	A3
	Appendix D – Consolidated Consent.....	A3

1 Introduction

1.1 Background

The Sunrise Mine Project (the Project) is an approved nickel, cobalt and scandium open cut mine located approximately 4.5 kilometres (km) north-west of Fifield and 45 km north-east of Condobolin in the Central West Region of NSW (see **Figure 1**).

SRL Ops Pty Ltd (SRL) owns the rights to develop the Project. SRL is a wholly owned subsidiary of Sunrise Energy Metals Limited (formerly Clean Teq Holdings Limited).

The Project was originally approved in May 2001 with partial development of the mine's bore fields commencing in 2006. However, further development of the Project has since been suspended due to unfavourable economic conditions. Construction of the mine and other components has yet to commence.

SRL is now planning to progress development of the Project to meet the projected growth in demand for nickel and cobalt, particularly for use in lithium-ion batteries. In preparation for Project execution, SRL has continued to review and optimise the Project design, construction and operations. The outcomes of this review are outlined in a recently completed Project Execution Plan (Clean Teq, 2020).

The Project Execution Plan identified a number of changes to the approved mine and processing facility, accommodation camp, rail siding and road transport activities, which would optimise the construction and operation of the Project. These changes are the subject of this modification.

1.2 Approved Project

The development consent for the Project was granted by then Minister for Urban Affairs and Planning on 23 May 2001, and has subsequently been modified on six occasions. The most recent modification of the Project (MOD 4), involving a number of changes to the mine layout, processing and water supply infrastructure, was approved by the Independent Planning Commission (IPC) in December 2018.

In summary, the modified consent includes:

- development of an open cut mine and processing facility, with a production rate of up to 2.5 million tonnes per annum (Mtpa) of run-of-mine (ROM) ore for a period of 21 years from the commencement of mining operations;
- transportation of up to 40,000 tonnes per annum (tpa) of nickel and cobalt sulphide precipitate, 180 tpa of scandium oxide and 100,000 tpa of ammonium sulphate;
- associated infrastructure, including waste emplacements, a tailings storage facility, evaporation ponds and surge dam;
- a limestone quarry with an extraction rate of up to 790,000 tpa, and associated limestone processing facility;
- a borefield, surface water extraction infrastructure and water pipeline;
- a natural gas pipeline;
- a rail siding;
- an accommodation camp for approximately 1,000 personnel, and associated electrical transmission line, water pipeline, sewerage and irrigation infrastructure; and
- associated transport activities and infrastructure including Fifield Bypass, road and intersection upgrades.

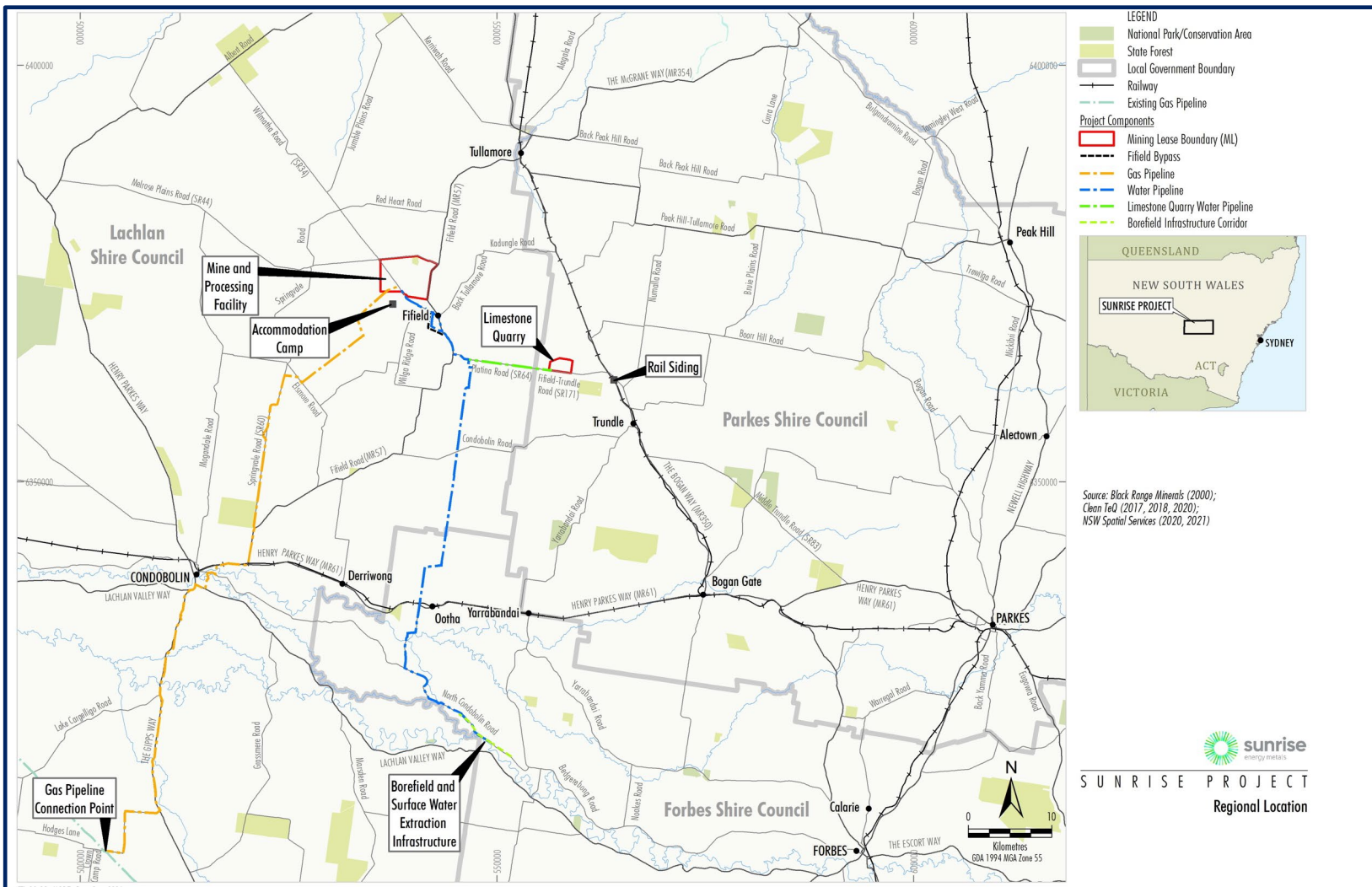


Figure 1 | Regional Location

1.3 Project Setting

As shown in **Figure 1**, the mine and processing facility, accommodation camp and gas pipeline are located in the Lachlan local government area (LGA). The limestone quarry and rail siding are located in the Parkes LGA, and the borefield is located in the Forbes LGA. The water pipeline traverses the Lachlan and Forbes LGAs.

The Project is located within a rural landscape, where the dominant land use is agriculture, principally grazing and cropping. The communities most affected by the Project are the residents surrounding the mine and quarry sites, the rural landowners around the borefield, and the residents of Fifield and Trundle villages. Fifield is located approximately 2.5 km south east of the mine site and Trundle is located approximately 4 km to the south-south east of the rail siding.

Mineral exploration and mining have been conducted in the area since the 1860s, with gold, platinum, tin and magnesite mining. More recently, exploration focus has shifted to concentrate on enriched elements, including nickel, cobalt and scandium in near-surface weathered strata.

2 Proposed Modification

2.1 Scope of Modification

On 30 June 2021, SRL lodged a modification application and associated Modification Report (see **Appendix A**) under section 4.55(2) of the EP&A Act. As summarised below, the proposed modification involves a number of changes to the approved mine and processing facility, accommodation camp, rail siding and road transport activities.

Mine and Processing Facility

The modification involves a range of changes to the design, layout and operation of the existing approved mine and processing facility, including:

- the addition of a temporary construction laydown area inside the approved tailings storage facility surface development area;
- increased mining production rate during the initial years of mining (peaking at 8.6 Mtpa in Year 1 and averaging 3 Mtpa over Years 1 to 18) and associated changes to mining and waste rock emplacement sequencing;
- a revised processing facility area layout, including two additional vehicle site access points;
- reducing the sulphuric acid plant stack height from 80 m to 40 m;
- changes to the processing plant reagent types, rates and storage volumes (including an increase in reagents from approximately 170,000 tpa to 188,000 tpa);
- a revised tailings storage facility cell construction sequence and the addition of a decant transfer pond;
- a relocated and resized evaporation pond;
- changes to the water management system to reflect the revised layout;
- an increased number of diesel-powered backup generators (and associated stacks) from one to four;
- the addition of exploration activities within the approved surface development area inside ML 1770;
- increasing the duration of the construction phase from two years to three years; and
- increasing the peak construction phase workforce from approximately 1,000 to approximately 1,900 personnel (for approximately a 2 month period).

The general layout of the approved compared to the proposed modified mine and processing facility is provided in **Figure 2**. The modification would not change the approved mining method; mine life (i.e. 21 years); final design and extents of the open cut pits or waste rock emplacements; or operating hours.

The modification would also require more materials extraction and handling during mining operations in the earlier years of the project. In particular, in Year 1 of the operational stage, there would be in the order of 18 Mt of material moved, made up of lower grade ore (8.6 Mt) and waste rock (9.4 Mt). This compares to average materials handling of these materials of 3 Mt and 6 Mt respectively. SRL is seeking to stockpile the lower grade ore and mine deeper in the earlier years to extract higher grade ore.

Rail Siding

The modification would include the relocation of the rail siding to a site approximately 500 metres (m) to the south of the approved location on the Bogan Gate Tottenham Railway (**Figure 3(a)**). The larger site would allow for the development of an ammonium sulphate storage and distribution facility and improve operability of the rail siding.

The relocation of the rail siding would necessitate a 675 m extension of the approved Scotson Lane road upgrade and relocation of the approved site access road 475 m to the south-east.

Ammonium sulphate produced at the mine and processing facility is approved to be transported by road to the rail siding for transport by rail at a rate of up to 100,000 tpa. The proposed modification is seeking approval to supply ammonium sulphate (a fertiliser) to agricultural operations in the region by road, in addition to distribution by rail. It is proposed that the facility would include an enclosed shed that would allow for the covered loading/unloading and storage of the ammonium sulphate.

The approved and proposed locations and general layout of the rail siding are shown in **Figures 3(a)** and **(b)**, respectively.

Accommodation Camp

To accommodate the proposed increase in the peak construction workforce, the modification also involves an increase in the existing approved capacity of the accommodation camp from 1,300 to 1,900. The larger accommodation camp would require:

- additional accommodation facilities (ie. conventional demountable components);
- a larger treated wastewater irrigation area (from 10.5 ha to 21 ha) during the construction phase;
- an option for an alternative alignment of the last section of the accommodation camp water pipeline along the accommodation camp services corridor, rather than along the access road corridor; and
- a new water pipeline located inside the approved accommodation camp services corridor to transfer treated wastewater to the mine and processing facility.

The general layout of the approved compared to the proposed accommodation camp is provided in **Figure 4**. The modification would not change the existing approved operational capacity of the camp (ie. 300 personnel) or the approved camp surface development area.

Road Transport Activities

The modification involves increases in traffic volumes during both the construction and operational phases of the Project, including increases to:

- construction phase vehicle movements associated with the increased construction phase accommodation camp capacity and changes to heavy vehicle delivery requirements;
- operational phase heavy vehicle movements associated with changes to processing plant reagent

types, rates and storage volumes; and

- operational phase heavy vehicle movements to and from the rail siding associated with the transport of metal and ammonium sulphate products.

A summary of the key components of the proposed modification compared to the approved project is provided in **Table 1**. The proposal is described in detail in the Modification Report (see **Appendix A**).

2.2 Justification for the Modification

SRL has advised that once the Project is operating it would be a leading global supplier of nickel and cobalt sulphates to the lithium-ion battery industry. It would also produce low-cost scandium for use in lightweight aluminium alloys for key transportation markets.

SRL states that demand for lithium-ion batteries is expected to increase at approximately 28% per annum between 2020 to 2030 and that this is forecast to increase demand for nickel and cobalt by 36% and 19% per annum respectively (compound annual growth rate) over the same period.

In preparation for execution of the Project, SRL completed a Project Execution Plan process. This process identified a number of modifications to the approved Project which SRL considers would optimise the construction and operation of the Project.

Production from the modified Project would contribute to Commonwealth Government tax revenue as well as NSW Government royalty and tax revenues. The modified Project would also provide employment for up to approximately 1,900 personnel during the three year construction phase and up to approximately 340 personnel during the 21 year operations phase. The Project would also support regional businesses over the modified Project life

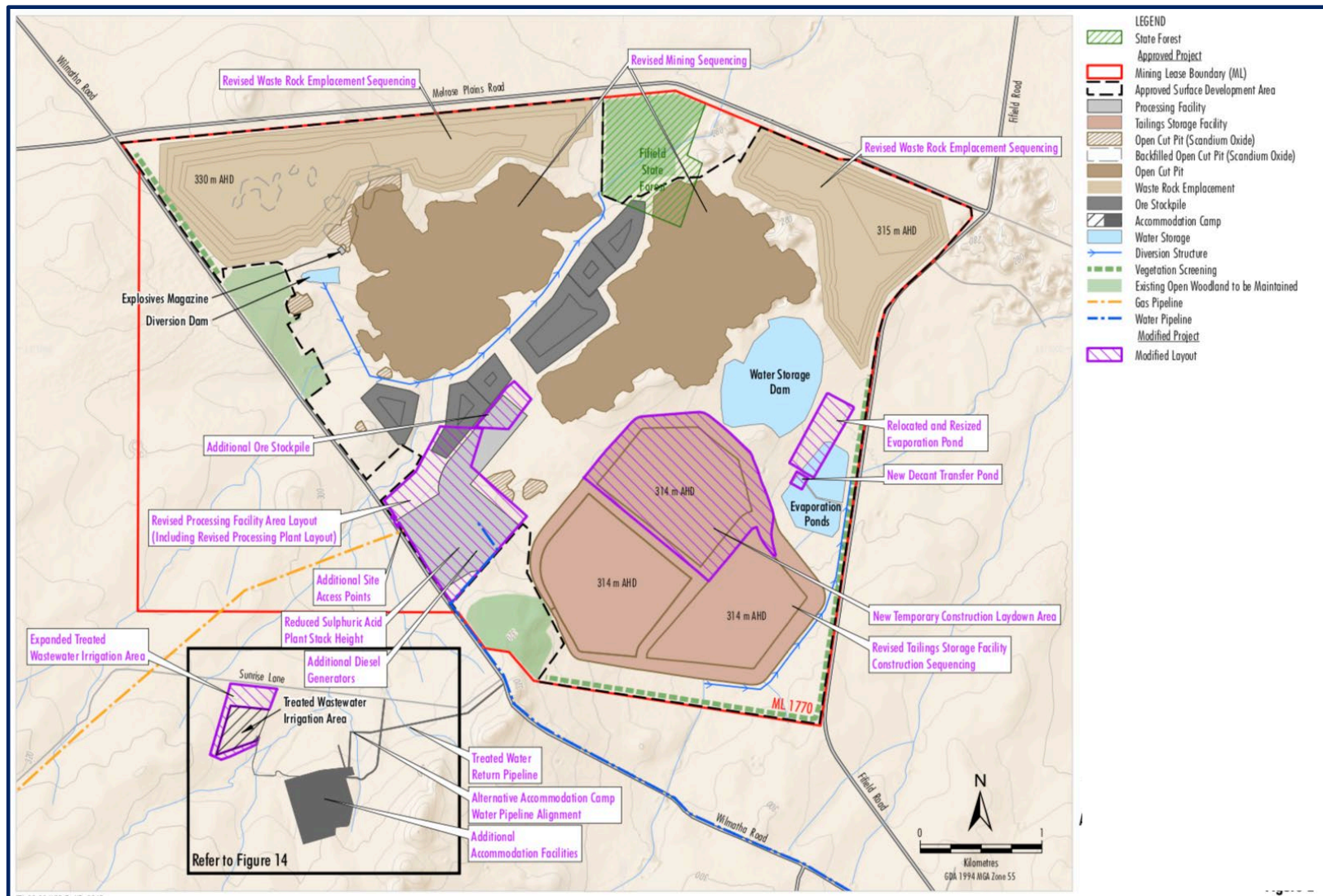
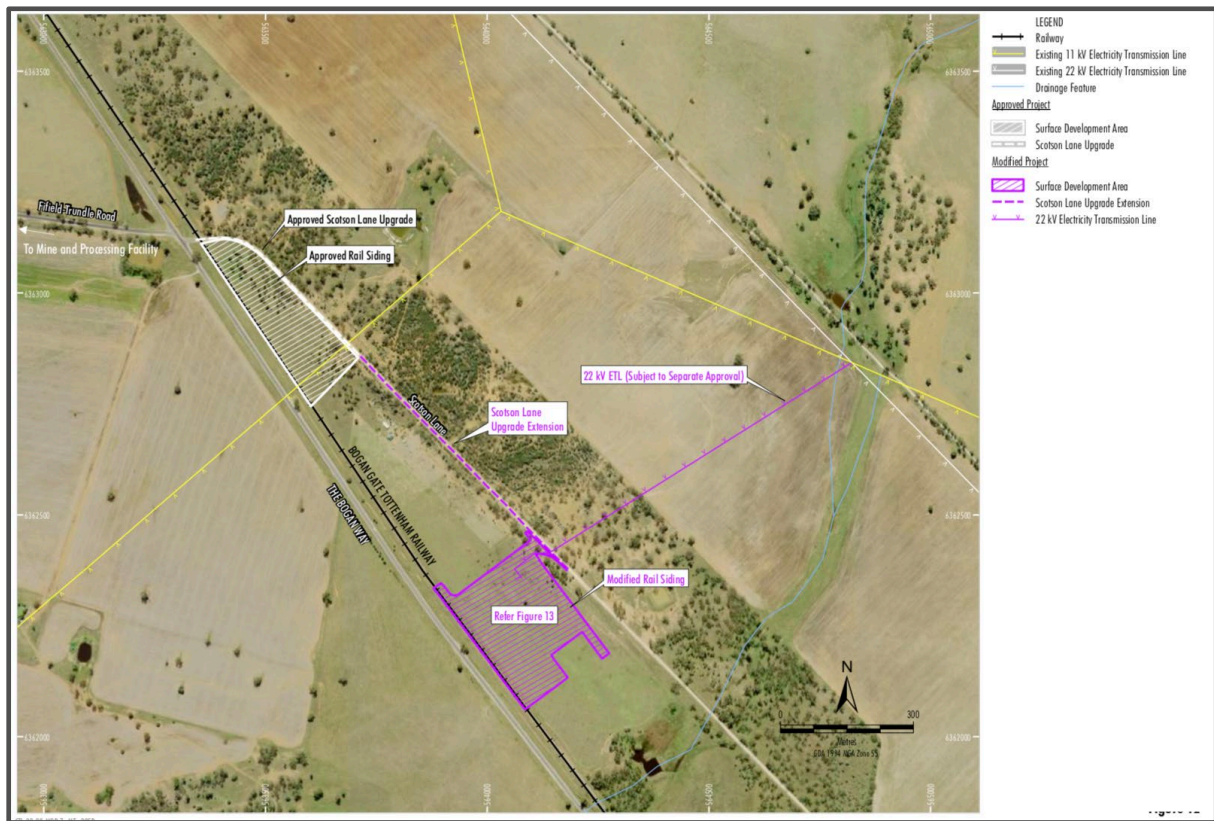
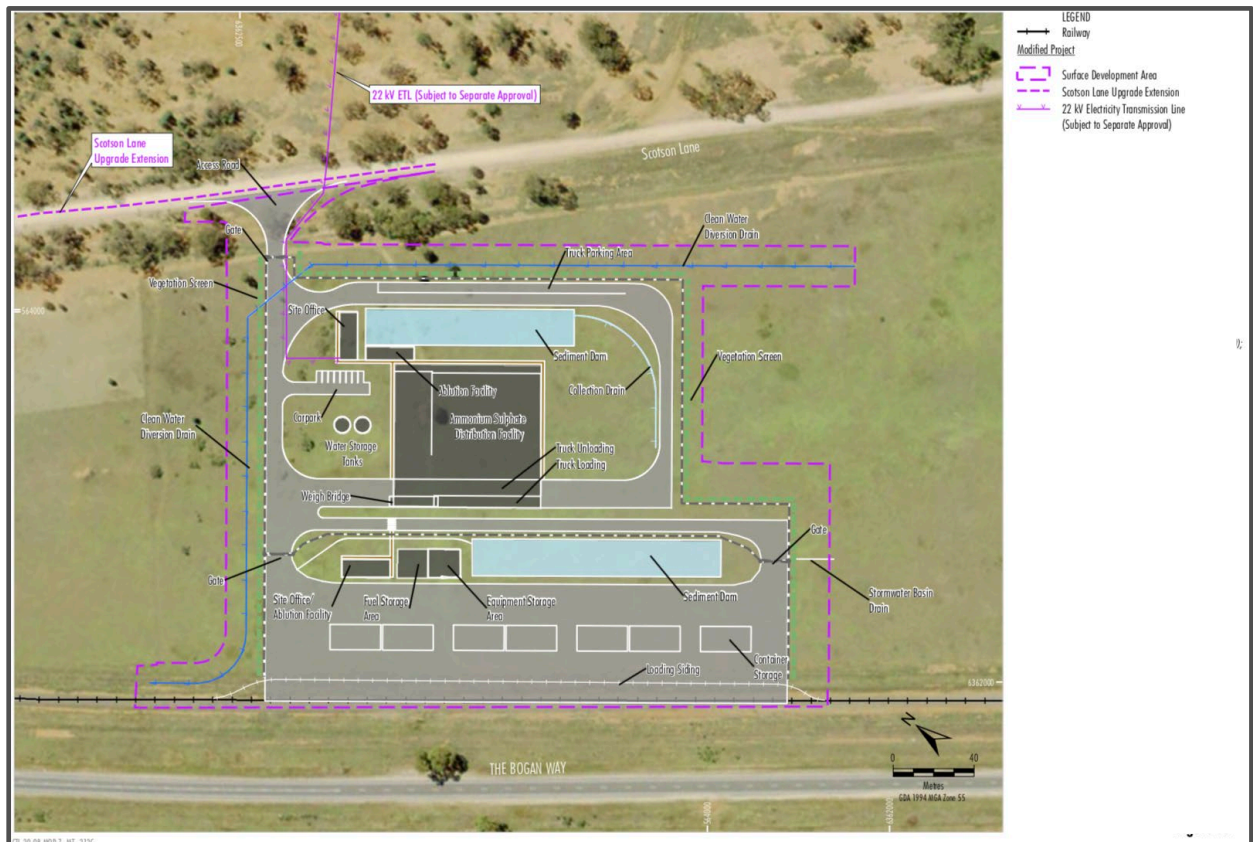


Figure 2 | Approved and Proposed Mine and Processing Facility Layout



(a)



(b)

Figure 3 | Approved and Proposed Rail Siding Location (a) and Layout (b)

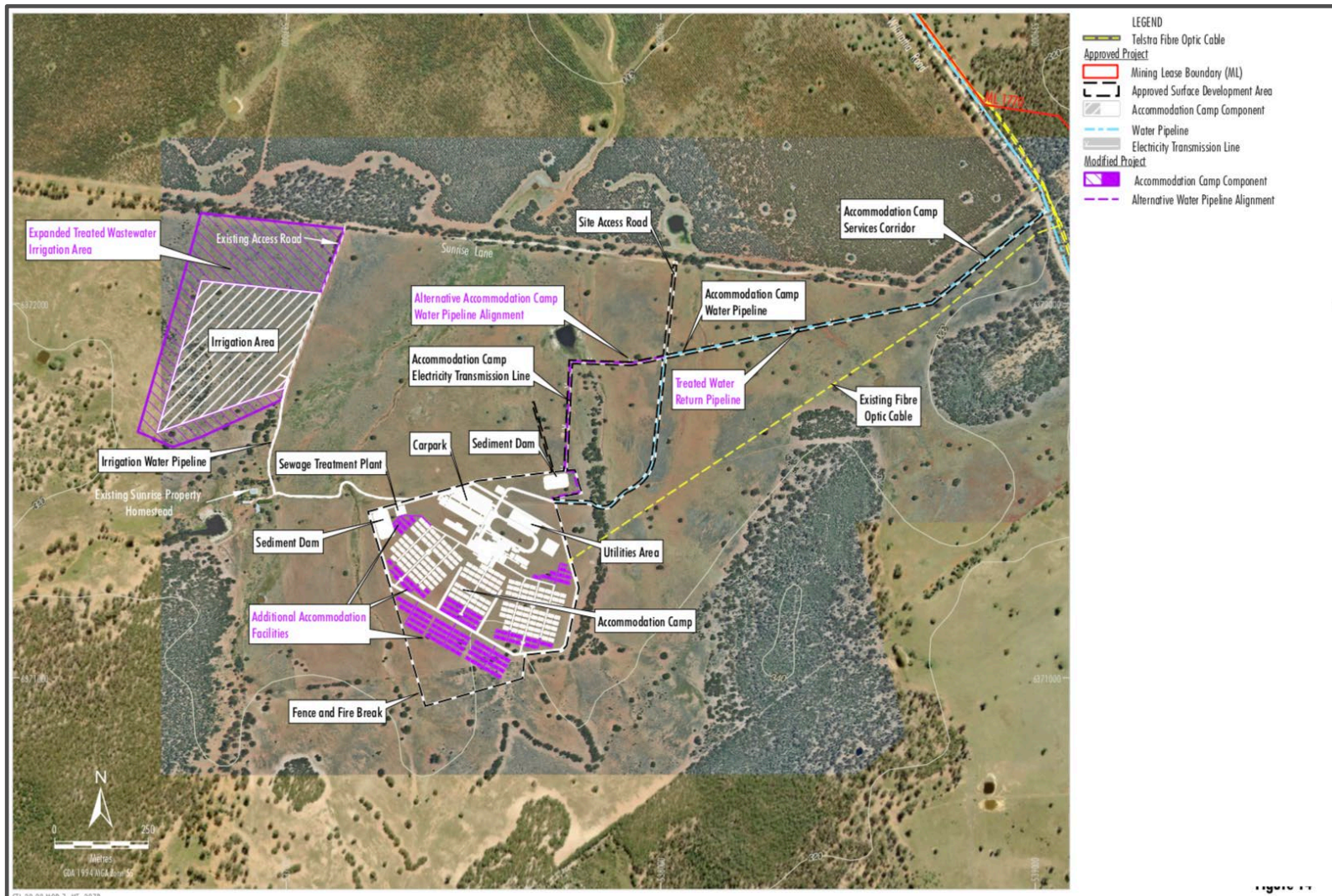


Figure 4 | Approved and Proposed Accommodation Camp

Table 1 | Comparison of Approved Project and Proposed Modification

Component	Approved Project	Proposed Modification
Mine Tenements and Exploration	<ul style="list-style-type: none"> • Mining Lease (ML) 1770 and ML 1769 • No exploration 	<ul style="list-style-type: none"> • No change to mine tenements • Addition of exploration activities within ML 1770
Project Life	<ul style="list-style-type: none"> • Construction phase – 2 years • Operational phase – 21 years from the commencement of mining 	<ul style="list-style-type: none"> • Construction phase – 3 years • Operational phase – no change
Mining Method and Extent	<ul style="list-style-type: none"> • Conventional open cut mining method • Two main open cut pits and multiple small-scale scandium open cut pits 	<ul style="list-style-type: none"> • No change to mining method or open cut pit extents • Minor changes to mining sequence and mining rate during initial years
Hours of operation	<ul style="list-style-type: none"> • 24 hours a day, 7 days a week 	<ul style="list-style-type: none"> • No change
Mineral Processing	<ul style="list-style-type: none"> • Autoclave feed rate of up to 2.5 Mtpa of ore (dry weight) 	<ul style="list-style-type: none"> • No change
Mine Processing Facility	<ul style="list-style-type: none"> • Key components include processing plant, sulphuric acid plant, limestone slurry plant, process reagent storages, power plant, workshops, warehouses, offices, fuel storages, water treatment plants, run-of-mine (ROM) pad, laydown areas and vehicle access point 	<ul style="list-style-type: none"> • No change to key components • Revised processing plant layout • Reduced sulphuric acid plant stack height from 80 m to 40 m • Changes to processing plant reagent types, rates and storage volumes • Two additional site access points
Reagent Production	<ul style="list-style-type: none"> • Up to 1,050,000 tpa of sulphuric acid produced 	<ul style="list-style-type: none"> • No change
Offsite Product Transport	<ul style="list-style-type: none"> • 40,000 tpa of nickel and cobalt sulphide precipitate • 180 tpa of scandium oxide • 100,000 tpa of ammonium sulphate 	<ul style="list-style-type: none"> • No change
Limestone	<ul style="list-style-type: none"> • Up to 790,000 tpa extracted from limestone quarry • Up to 560,000 tpa of limestone sourced from third-party suppliers 	<ul style="list-style-type: none"> • No change
Waste Rock Management	<ul style="list-style-type: none"> • Deposited in small scale scandium open cut voids and in waste rock emplacement areas 	<ul style="list-style-type: none"> • No change to waste rock management • Mine changes to waste rock emplacement sequence
Tailings Management	<ul style="list-style-type: none"> • Deposited in tailings storage facility 	<ul style="list-style-type: none"> • Revised tailings storage facility cell construction sequence • Addition of a decant transfer pond
Water Supply and Management	<ul style="list-style-type: none"> • Development of borefield, surface water extraction infrastructure, water pipeline to mine and processing facility, and onsite water storage and evaporative ponds 	<ul style="list-style-type: none"> • No change to bore field or water supply • Changes to the surface water management system at the mine and processing facility including relocated and resized evaporation pond; two new processing plant runoff dams; increased capacity of the raw water dam; and changes to the approved sediment and mine water dams

Component	Approved Project	Proposed Modification
Power Supply	<ul style="list-style-type: none"> Co-generation power plant Diesel powered backup generator and stack 	<ul style="list-style-type: none"> No change to power plant Addition of three backup generators and associated stacks
Gas supply	<ul style="list-style-type: none"> Gas pipeline from the Moomba Sydney Pipeline to the mine and processing facility 	<ul style="list-style-type: none"> No change
Accommodation Camp	<ul style="list-style-type: none"> Camp with approximate capacity of 1,300 personnel during construction phase and 300 personnel during operations phase Development of associated sewage pump station, wastewater irrigation area, power and water supply infrastructure, and site access 	<ul style="list-style-type: none"> Increased construction phase capacity to 1,900 personnel and additional accommodation facilities. No change to operational capacity Increased size of treated wastewater irrigation area Option for an alternative alignment of the last section of the water pipeline New water pipeline to transfer treated wastewater to the mine and processing facility
Rail Siding	<ul style="list-style-type: none"> Development of a rail siding on the Bogan Gate Tottenham Railway Upgrade of Scotson Lane and construction of site access 	<ul style="list-style-type: none"> Relocated rail siding 500 m south of approved location Addition of an ammonium sulphate storage and distribution facility 675 m extension of Scotson Lane road upgrade and relocation of site access road
Material Transport	<ul style="list-style-type: none"> Transport of reagents and products via a combination of road and rail 	<ul style="list-style-type: none"> No change to rail transport Increase in construction and operational phase heavy vehicle movements to and from mine processing facility, camp and rail siding
Employment	<ul style="list-style-type: none"> Construction workforce peak of 1,000 personnel Operational workforce of 335 personnel 	<ul style="list-style-type: none"> Construction workforce peak of 1,900 personnel Operational workforce of 340 personnel

3 Statutory Context

3.1 Scope of Modification

The Project was originally approved under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in 2001, and the modification application and Modification Report were lodged under Section 4.55(2) of the EP&A Act. The Department has reviewed the scope of the modification and considers that:

- the proposed changes are relatively minor in comparison to the approved Project, and would result in optimisation of the approved construction and operational activities;
- there would be no change to the approved mine life, mining methods or production rates;
- there would be no change to other components of the approved Project including the limestone quarry; borefield, surface water extraction infrastructure or water pipeline; or gas pipeline;
- the impacts of the development as modified would be similar to the impacts of the approved project (see **Section 5**); and

- the development would remain substantially the same development as originally approved.

Therefore, the Department is satisfied the proposed modification is within the scope of section 4.55(2) of the EP&A Act and does not constitute a new development application. Accordingly, the Department considers that the application should be assessed and determined under section 4.55(2) of the Act.

The Department also considered:

- advice provided concerning the proposed modification (see **Section 4**); and
- the relevant matters in Section 4.15(1) of the EP&A Act, including:
 - the provisions of relevant environmental planning instruments (see Section 3.4);
 - the likely impacts of the proposed modification, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality (see Section 5);
 - the public interest, including any relevant objects of the EP&A Act (see Section 3.5); and
 - the reasons given by the approval authority for the grant of the original approval (see Section 3.4).

3.2 Consent Authority

The Minister for Planning (Minister) is the consent authority for the modification application under Section 4.5(a) of the EP&A Act. However, under the Minister's delegation of the 26 April 2021, the Director Resource Assessments may determine the application because there were no objecting submissions, none of the councils objected to the proposal and SRL did not make any political donations.

3.3 Mandatory Matters for Consideration

In accordance with Section 4.55(3) and Section 4.15(1) of the EP&A Act, a consent authority must consider the following matters, to the extent they are relevant, when considering the merits of the application:

- environmental planning instruments, draft instruments, and any planning agreements;
- the EP&A Regulation;
- likely impacts of the modification application, including environmental impacts on both the natural and built environments, and social and economic impacts;
- suitability of the site;
- any submissions;
- the public interest; and
- the reasons for granting approval for the original application.

The Department has considered all these matters carefully and summarised the findings of this below and in **Sections 4** and **5** of this report.

Environmental Planning Instruments

Several environmental planning instruments apply to the modification, including:

- State Environmental Planning Policy (Mining Petroleum Production and Extractive Industries) 2007;
- State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP);
- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy 33 (SEPP No. 33) – Hazardous and Offensive Development;
- State Environmental Planning Policy 55 (SEPP No. 55) – Remediation of Land; and

- Lachlan Local Environmental Plan (LEP) 2013;
- Parkes LEP 2012; and
- Forbes LEP 2013.

The Department has considered the proposed modification against the relevant provisions of these instruments. The Department considers that the proposed modification can be undertaken in a manner that is generally in accordance with the aims, objectives and provisions of these instruments.

Reasons for Original Approval

In determining the original Project application, the then Minister for Urban Affairs and Planning concluded that the benefits of the project outweighed the residual environmental impacts and imposed a range of strict conditions to appropriately manage the impacts. The Department has considered the proposed modification against the reasons the then Minister gave for determining the Project and is satisfied that the proposed modification does not affect the decision that was previously made. The proposed modification would allow similar benefits to be realised at local, regional and State levels.

3.4 Objects of the EP&A Act

The objects of the EP&A Act are the underpinning principles for all decision making under the act. They must be considered by the consent authority when determining a development application under the act. The Department has assessed the modified Project against the objects found in section 1.3 of the EP&A Act. **Appendix B** summarises how the Department considers that the modified Project can be undertaken in a manner that is consistent with these objectives, including Ecologically Sustainable Development (ESD).

4 Engagement

4.1 Public Engagement and Consultation

The Department publicly exhibited the Modification Report on the Department's website from 27 July 2021 until 9 August 2021 and previous submitters and neighbouring landowners were notified and invited to make a submission. The modification application was also referred to each of the local Councils and relevant State government agencies for advice.

The Department received advice from seven agencies and submissions from Lachlan Shire Council and Parkes Shire Council. Forbes Shire Council did not provide comment and the Department did not receive submissions from members of the general public.

4.2 Summary of Advice - Government Agencies

A summary of the advice and council submissions is provided in **Table 2** below and considered in more detail in **Section 5** of this report. Full copies of agency advice and council submissions are provided (see **Appendix A**).

SRL provided a Submissions Report and additional information responding to the issues raised in submissions and follow-up advice provided by the agencies (see **Appendix A**).

Table 2 | Agency Advice

Agency	Advice	Consideration and Conditions
Environment Protection Authority (EPA)	<p><i>In relation to air quality:</i></p> <ul style="list-style-type: none"> Recommended that the Air Quality Impact Assessment (AQIA) be revised to address some technical matters related to the sulphuric acid emissions and requested further analysis of Volatile Organic Compounds (VOCs). This information was provided in the Submissions Report, with additional information provided on the VOCs in separate advice (see Appendix A). The EPA was generally satisfied with the information provided. However, it recommended conditions requiring SRL to provide an Air Quality Verification Report prior to construction to address uncertainties associated with the plant and equipment design specifications and actual emissions performance. The EPA also recommended limiting operation of the diesel generators to 200 hours per year to ensure point source emissions comply with the limits under the <i>Protection of the Environment Operations) Clean Air Regulation 2010</i> (PEOE Regulation)¹. <p><i>In relation to noise:</i></p> <ul style="list-style-type: none"> Recommended that the Noise Impact Assessment (NIA) be revised to address a number of technical matters used in the NIA including consideration of modifying factors (such as low frequency noise), equipment sound power levels, representative years, implementation of reasonable and feasible noise measures to minimise noise, and that if approved, conditions should be imposed on the Project that reflect the current status of negotiated agreements and land ownership. This information was provided in the Submissions Report to the satisfaction of the EPA and in additional information provided by SRL (see Appendix A). The EPA was satisfied with the information provided. The EPA recommended a condition requiring the validation of mobile equipment sound power levels, and provided recommendations on the appropriate operational noise criteria for the modified Project. 	<ul style="list-style-type: none"> The conditions of consent already require SRL to provide an Air Quality Verification Report to the satisfaction of the EPA that confirms all sulphuric acid plant and power generation stack emission discharges will comply with the requirements of the PEOE Regulation. The EPA and Department accept SRLs analysis of the noise bunds, and that they are unlikely to be effective as the noise sources would be too far away from the bund to create a significant reduction in noise. The Department has recommended a condition requiring SRL to maintain the sound power levels of mobile equipment and plant used on site, and to make improvements to noise suppression equipment as improved technology becomes available, where reasonable and feasible. The Department has adopted the EPA's approach to setting operational noise criteria for the modified Project.

¹ Under the POEO Regulation, generators are exempt from the nitrogen dioxide and nitric oxide limits specified in the POEO Regulation if they are used for no more than 200 hours per year.

Agency	Advice	Consideration and Conditions
	<ul style="list-style-type: none"> Noted that it had no specific comments with respect to potential impacts of the modified project on surface water and groundwater. 	
Department of Planning and Environment		
Biodiversity Conservation and Science Directorate (BCS)	<ul style="list-style-type: none"> Satisfied that the assessment of biodiversity impacts at the rail siding site was adequate and that, given there would be an overall reduction in the area of native vegetation cleared, a biodiversity development assessment report (BDAR) was not required for this site. Noted that the accommodation camp surface disturbance area would not change as a result of the modification and that a BDAR was not required for this component of the modification. Requested additional information to clarify whether BDARs would be required for the proposed alternative alignment of the water pipeline or the increase in the size of the irrigation area at the accommodation camp. Further information provided by SRL confirmed that no additional native vegetation clearance or impacts would occur. BCS agreed with this outcome. BSC requested a condition limiting irrigation of treated effluent to the expanded irrigation area to the construction phase only (ie. when the camp capacity is at its maximum of 1,300 people) in order to reduce potential indirect impacts to the regenerating native vegetation. 	<ul style="list-style-type: none"> The Department has recommended a performance measure limiting irrigation of treated effluent to the expanded area at the accommodation during the construction phase only.
Crown Lands	<ul style="list-style-type: none"> Noted that as there are no substantial changes to the proposal and use of, and access to, Crown land is authorised under Mining Lease 1770, had no comments. 	<ul style="list-style-type: none"> Noted.
Department of Regional NSW		
Mining, Exploration & Geoscience (MEG)	<ul style="list-style-type: none"> Considered that if the modification be approved, efficient and optimised resource outcomes can be achieved by the modified Project. 	<ul style="list-style-type: none"> Noted. MEG supports the recommended conditions.
Resource Regulator	<ul style="list-style-type: none"> Advised that it has no specific comments regarding mine safety or mine rehabilitation. 	<ul style="list-style-type: none"> Noted.

Agency	Advice	Consideration and Conditions
Transport for NSW	<ul style="list-style-type: none"> Did not object to the proposed modification. Recommended that the Traffic Management Plan (TMP) and Road Transport Protocol (RTP) for the Project be updated to take into account the alterations and road transport impacts as a result of the modification. Recommended that railway level crossing safety assessments are carried out to consider the operation of each level crossing on the transport routes, and that any railway level crossing upgrades that are required be done at the cost of the applicant and be subject to the approval of TfNSW. Noted that John Holland Rail, in its role as the Rail Infrastructure Manager (RIM), reviewed the proposed modification and provided conditions for consideration (appended to the submission) which included various design and secondary approval requirements for the rail siding (particularly the loading siding). In response, SRL confirmed that the RIM maintains a range of engineering/design standards and network access and operational rules and procedures that take into consideration the requirements of relevant legislation (e.g. <i>Rail Safety National Law (NSW) No 82a 2012</i>) that all infrastructure users, including SRL, must adhere to. SRL committed to consult with TfNSW and the relevant RIM regarding design and secondary approval requirements and obtain necessary secondary approvals for the rail siding. 	<ul style="list-style-type: none"> The Department notes that the existing Project Approval requires the preparation and implementation of a TMP, including a RTP. These plans will be required to be reviewed and updated to include specific traffic and transport management measures associated with the construction and operation of the modification. The Department has recommended that rail level crossing safety assessments be completed for all level crossing along the Project traffic routes, and that an agreement on the timing and funding for any necessary upgrades be reached between SRL and TfNSW prior to commissioning of the Project. The Department accepts that the construction and operation of structures and infrastructure within the modified rail siding area would be managed by the statutory requirements of TfNSW and the relevant RIM, and that no additional conditions are required for this component of the modification.
Heritage NSW	<ul style="list-style-type: none"> Noted that it did not identify any issues regarding the Aboriginal Cultural Heritage Assessment (ACHA). Acknowledged that no Aboriginal objects were located in the investigation areas and concurred that the nil result is consistent with the landscape context which is unlikely to contain surviving evidence of Aboriginal objects. Recommended that the modified consent change the references to "Local Aboriginal Land Council" to the correct reference, "Registered Aboriginal Party". 	<ul style="list-style-type: none"> The Department has recommended that the existing conditions be amended to correctly reference "Registered Aboriginal Parties".
Local Government		
Lachlan Shire Council (LSC)	<ul style="list-style-type: none"> Raised concern regarding the cumulative effect of the Project on housing availability and affordability and medical services, coupled with other projects in the area, particularly during the initial construction period before the accommodation camp is built. 	<ul style="list-style-type: none"> The Department has recommended a condition requiring the preparation and implementation of a Social Impact Management Plan (SIMP) in consultation with Councils and the Community Consultative Committee (CCC). The

Agency	Advice	Consideration and Conditions
	<ul style="list-style-type: none"> Noted that social impacts associated with the proposal may need to be addressed through changes in the Voluntary Planning Agreement (VPA) with the three Councils. Questioned what SRL are doing to train local residents in the skilled roles needed for the Project. Questioned what consultation and negotiation had been undertaken with community members predicted to be impacted by project related noise levels, and noted that offering voluntary acquisition rights should be seen as a last resort option. Supported the comments in relation to traffic and road impacts made by Parkes Shire Council in its submission the modification. In its submission on the Submissions Report, LSC accepted the additional information provided in relation to noise impacts and agreed that no changes are required to the existing community and road contributions outlined in the existing VPA. However, LSC disagreed with the information provided in relation to additional pressure on accommodation and health care services. In response to LSC's concern in relation to housing availability and medical services, SRL committed to: <ul style="list-style-type: none"> develop a construction phase accommodation strategy once the timing of project construction commencement is known; and provide health services at the mine to treat minor injuries and illnesses, as well as engage a remote health service provider to provide onsite medical support. In comments on the draft conditions, LSC noted that the proposal would generate a significant amount of waste and raised concern that it may have a negative impact upon existing waste facilities. Consequently, LSC recommended that a waste management plan (WMP) be prepared prior to carrying out any development. 	<p>SIMP is to be prepared once the construction timing is confirmed and provide a detailed description of the measures that would be implemented prior to construction to:</p> <ul style="list-style-type: none"> - mitigate impacts on housing availability and affordability and community services, particularly health and medical services; and - promote workforce opportunities for local residents, including training initiatives in the skilled roles needed for the modified Project. <ul style="list-style-type: none"> In relation to waste, the Department notes that the modification would not result in a significant increase in the volume of waste generated from the approved Project, other than a minor increase in waste produced from the additional workers housed at the accommodation camp for a short period of time during construction. Onsite management of waste would be the same as it would have been for the approved Project, and the existing conditions require SRL to minimise waste generated, and to store and handle waste in accordance with the EPA's Waste Classification Guidelines 2014. The Department notes that SRL has committed to prepare a WMP for the development in consultation with both LSC and PSC. The Department is satisfied that no further waste-related conditions are required.
Parkes Shire Council (PSC)	<ul style="list-style-type: none"> Disagreed with the statement that there will be no significant impacts to road performance, capacity, efficiency or safety as a result of the traffic associated with the modification. Requested that SRL contribute to the ongoing maintenance of the regional road, based on a 50/50 ratio for future upgrades. 	<ul style="list-style-type: none"> The Department accepts that the modified Project would reduce the approved number of vehicle movements during construction (due to the use of shuttle buses) and not significantly change the number of operational movements. The Department accepts that the modified

Agency	Advice	Consideration and Conditions
	<ul style="list-style-type: none"> Noted a preference that heavy vehicles associated with the project utilise Henry Parkes Way and The Bogan Way rather than Middle Trundle Road. Supported the proposed upgrades of Scotson Lane to an 8 m sealed pavement and 1m gravel shoulders. Recommended conditions of approval, including: <ul style="list-style-type: none"> dilapidation surveys for pre and post construction road condition; Section 138 <i>Roads Act 1993</i> approval requirements for works in the road reserve; swept paths, signage and line marking for The Bogan Way/Fifield Trundle Road and Scotson Lane intersections; and mitigation measures for the ammonium sulphate storage and distribution facility at the rail siding site included in the Preliminary Hazard Analysis. 	<p>Project would therefore not change the existing Level of Service (LoS) on key roads and intersections.</p> <ul style="list-style-type: none"> The Department notes that the existing development consent and VPA with the Councils require extensive road and intersection upgrade and maintenance obligations. The Department has recommended conditions requiring the additional roadworks proposed as part of the modification (ie. two additional vehicle site access points from Wilmatha Road to the mine and processing facility and the extension of the Scotson Lane road upgrade) to be undertaken in consultation with the relevant Councils and be fully funded by SRL. SRL has confirmed that it would direct the majority of construction phase traffic from Parkes along Henry Parkes Way and The Bogan Way. The Department accepts that works in road reserve would require approval under the statutory requirements of the <i>Roads Act 1993</i>, and that no additional conditions are required for this component of the modification. The Department has recommended that the existing requirements for pre-construction and pre-commissioning Hazard Studies be extended to include the ammonium sulphate storage and distribution at the new rail siding site. PSC supports the recommended conditions.

5 Assessment

In assessing the merits of the modification application, the Department has considered:

- the Modification Report and Submissions Report;
- agency and council submissions;
- previous environmental assessments undertaken for the Project;
- modification applications and existing conditions of approval; and
- requirements of the EP&A Act, including the objects of the Act.

The Department considers that given the change in site layout, increase in processing rate, and the larger construction workforce, the key assessment issues for the modification are noise, traffic and social impacts. A summary of the Department's consideration of these issues is provided below.

Consideration of other issues is discussed in **section 5.4**.

5.1 Noise

Noise Assessment

The Modification Report included a Noise Impact Assessment (NIA) prepared by Renzo Tonin & Associates (Renzo Tonin). The NIA included assessments of construction, operational and road noise which were prepared in accordance with the *Interim Construction Noise Guideline* (ICNG), the *NSW Noise Policy for Industry 2017* (NPfI) and *NSW Road Noise Policy* (RNP), respectively. The NIA also considered the *Voluntary Land Acquisition and Mitigation Policy* (VLAMP).

The EPA recommended that the NIA be revised to compare the construction noise predictions with the current EPL construction noise limits; assess modifying factors in accordance with the NPfI Fact Sheet C; and clarify differences in noise levels and predictions compared to previous NIAs for the Project. Further, the EPA requested clarification of the at source mitigation considered and confirmation that all reasonable and feasible mitigation is included in the noise commitments.

This information was included in the Submissions Report. The EPA advised that it was satisfied with the information provided, however subsequently requested further justification that noise bunds would be ineffective in reducing noise at sensitive receivers. This information was provided as separate advice (see **Appendix A**).

The additional noise modelling indicated that there would be no appreciable reduction in noise levels at the nearest sensitive receivers from acoustic bunds as mobile fleet items would not practically be able to continually operate in close proximity to the bunds. Further, SRL considered that the noise generated to construct the bunds and the high cost of sourcing bund materials make their application unreasonable and unfeasible. The EPA accepted this outcome and recommended that the Noise Management Plan should be updated to reflect the reasonable and feasible mitigation measures proposed in the modification.

As discussed below, the EPA made recommendations in relation to applicable noise criteria and validation of equipment sound power levels, which have been adopted by the Department.

Existing Noise Setting

The location of the nearest sensitive receivers to the mine and processing facility and new rail siding sites are shown on **Figures 5** and **6**, respectively.

Rural residential receivers surround the mine and processing facility, with the closest privately owned sensitive receiver (Currajong Park 2) located approximately 1.2 km north of the project boundary.

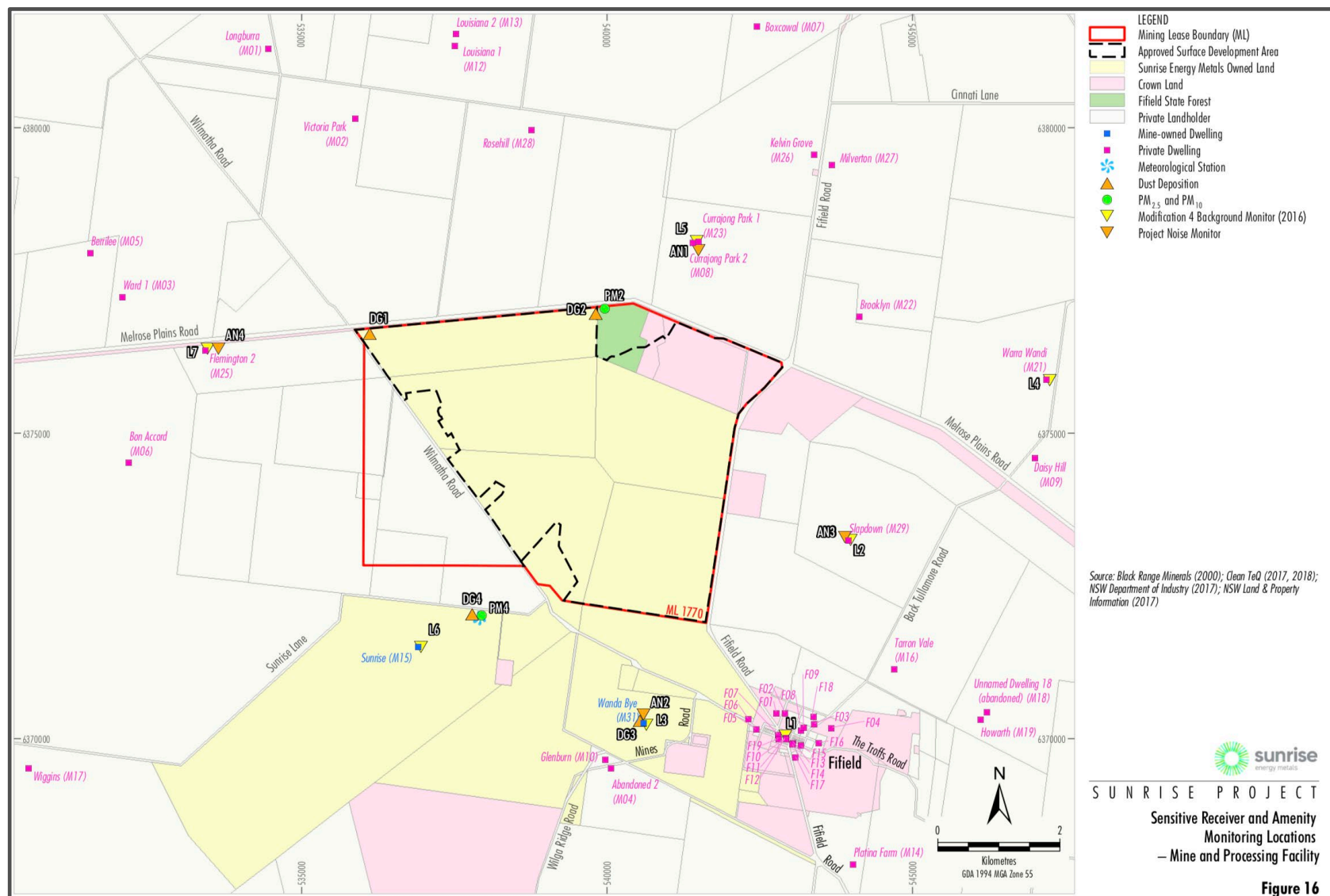


Figure 5 | Location of Sensitive Receivers (Mine and Processing Facility)



Figure 6 | Location of Sensitive Receivers (Rail Siding)

Fifield is the closest community to the mine and processing facility and is located approximately 2.5 km to south east of the site.

The closest privately owned sensitive receivers to the new rail siding site are located approximately 1 km to the west (Glen Rock) approximately 1.2 km east (Ballenrae West) of the site. Trundle is the closest community to the rail siding and is located approximately 4 km to the south-southeast.

Noise Management and Mitigation

Preliminary noise modelling identified potential for noise exceedances of the Project Noise Trigger Levels (PNTLs) (ie. up to 7 dB(A) above the PNTLs at 5 privately owned receivers). As such, a range of reasonable and feasible noise management and mitigation measures were proposed to be implemented to reduce noise levels, including:

- ceasing operations on the north-eastern waste emplacement and operation of an excavator in the eastern open cut pit during adverse wind conditions in the evening period in Year 10;
- ceasing haulage on the north-western waste emplacement during adverse wind conditions in the evening period in Year 10; and
- ceasing haulage on the north-eastern waste emplacement during adverse wind conditions in the evening period in Year 17.

Modelling in the NIA indicated that implementation of these mitigation and management measures would reduce noise levels by up to 2 dB(A).

SRL indicated that given the considerable operating costs associated with implementing the above mitigation measures during adverse meteorological conditions, the company proposed to seek to enter into negotiated agreements with the owners of the 5 privately-owned receivers that were predicted to experience exceedances of the PNTLs.

The Department accepts that it is the company's prerogative to enter into agreements with the owner/s or leaseholders of the surrounding residence to generate higher noise levels, and that if an agreement(s) is made the noise criteria in the development consent would not apply, subject to the terms of the agreement.

However, the Department notes that the VLAMP requires that all reasonable and feasible noise mitigation be implemented by proponents prior to the Department conditioning voluntary acquisition rights as part of development consents. LSC raised this issue in its submission on the modification, noting that offering voluntary acquisition rights should be seen as a last resort option. As discussed below, the Department has consequently recommended noise criteria based on the implementation of all reasonable and feasible noise mitigation measures and operating conditions requiring the implementation of best management practice noise mitigation to minimise the operational noise generated by the modified Project.

In its advice on the Submissions Report, the EPA noted that in some cases the mobile equipment sound power levels used in the noise modelling were lower when compared to NIAs for previous modifications. In response, SRL confirmed that the lower sound power levels represent industry "best practice". The EPA indicated that achieving the lower sound power levels may involve the use of original equipment manufacturer or third-party noise mitigation kits and recommended that the company be required to validate the sound power levels of equipment used on site.

The Department agrees that the use of best practice mobile equipment represents reasonable and feasible noise mitigation and has recommended operating conditions requiring SRL to maintain the sound power levels of the mobile equipment and plant and to make improvements to noise suppression equipment as improved technology becomes available, where reasonable and feasible.

Noise Criteria and Predictions

Construction Criteria and Predictions

In the NIA, Renzo Tonin assessed predicted construction noise against construction noise management levels derived in accordance with the ICNG. In its submission on the modification, the EPA also requested the construction noise assessment compare predicted construction noise levels against the limits in EPL 21146.

As shown in **Table 3**, with the exception of the night $L_{A1(1 \text{ min})}$, the EPL construction noise limits are consistent with the ICNG noise management levels for the evening and night time periods. However, the day time construction EPL noise limit is 5 dB(A) lower than the day (standard hours) noise management level derived in accordance with the ICNG. Renzo Tonin indicated that this difference is because the noise management level was based on higher day time minimum background noise levels consistent with the NPfI compared to the background noise level used to develop the EPL criteria.

As discussed below, construction noise predictions for both the mine and processing facility and rail siding sites have been assessed against both criteria.

Table 3 | Construction Noise Management Levels and EPL Limits

Source	Standard Hours		Outside Standard Hours		
	Day	Day	Evening	Night	
	$L_{Aeq} (15 \text{ min})$	$L_{Aeq} (15 \text{ min})$	$L_{Aeq} (15 \text{ min})$	$L_{Aeq} (15 \text{ min})$	$L_{A1(1 \text{ min})}$
EPL 21146 Limit	40	-	35	35	45
ICNG Noise Management Level	45	40	35	35	-

Renzo Tonin confirmed that the maximum predicted construction noise levels from construction activities associated with the modified mine and processing facility were 24 dB(A) at the nearest sensitive receivers. This is well below both the ICNG noise management levels and EPL noise limits for day, evening and night-time periods (refer to **Table 5**).

Construction of the rail siding would be limited to the day time period only. The maximum predicted day time construction noise level from construction activities associated with the rail siding was 37 dB(A) at the nearest sensitive receiver. This is below both the EPL and ICNG construction noise criteria.

The Department has recommended a condition limiting construction activities at the rail siding to day time only.

Operational Criteria and Predictions

Renzo Tonin assessed predicted operational noise against the existing operational noise criteria in the development consent for the mine and processing facility (Schedule 3, condition 3) and the rail siding (Schedule 3, condition 5), and the PNTLs derived in accordance with the NPfI.

As shown in **Table 4**, the PNTLs are the same or 1-2 dB(A) lower than the noise criteria in the development consent for the evening and night periods. However, the day time PNTLs are between 3-5 dB(A) higher than the day time criteria in the development consent. The Department notes that

the intent of the higher day limits generated in accordance with the NPfl was partly to provide an incentive for proponents to move high generating noise activities to the less sensitive day time period.

In relation to which operational noise criteria to apply to the modification, the EPA recommended that where the predicted noise levels for the modification meet the existing noise limits, they should remain unchanged. Where predicted noise levels are above the existing noise limits, they should be set at the predicted level. The EPA indicated that the noise limits should apply during standard meteorological conditions during the day and noise-enhancing conditions during the evening and night. When meteorological conditions outside of these conditions are present, the limits + 5 dB should apply. EPA considers this brings the conditions in line with the approach taken under the NPfl.

The Department accepts this approach on the basis that the predicted noise levels incorporate all reasonable and feasible noise mitigation measures.

Table 4 | Operational Noise Criteria – Existing Limits Vs PNTLs (LAeq(15 mins))

Location	Existing Limits			Project Noise Trigger Levels		
	Day	Evening	Night	Day	Evening	Night
Mine and Processing Facility						
M08, M23	37	37	37			
M04, M10, M28, M29	35	36	36			
M22	36	35	35	40	35	35
All other privately-owned residences	35	35	35			
Rail Siding						
Q06, Q08, Q09	37	35	35			
All other privately-owned residences	35	35	35	40	35	35

Renzo Tonin modelled operational noise from the mine and processing facility and the rail siding site based on maximum noise predictions for activities in Years 1, 10 and 17 under worst case meteorological conditions. **Table 5** summarises the modelling results associated with the mine and processing facility and rail siding sites (incorporating the noise mitigation and management measures above) against the noise limits derived using the EPA's recommended approach. The bracketed figures indicate noise levels above the existing criteria and PTNLs, respectively.

In summary, modelling associated with the mine and processing facility predicted that with the exception of two residences (M08 and M23), all predicted noise levels either meet the existing noise criteria/PNTLs or are 1-2 dB(A) above. Using the EPA's approach, the noise criteria for M08 and M23 (Currajong Park 1 and 2) are 3-5 dB(A) above existing criteria/PNTLs during the evening and night periods (ie. 40 dB(A)).

Modelling associated with the rail siding site indicated that all privately-owned sensitive receivers would experience noise levels below both the existing criteria and PNTLs during all operational activities.

Table 5 | Predicted noise levels against recommended operational noise criteria (L_{Aeq}(15 mins))

Location	Predicted Noise Level			EPA Recommended Operational Criteria		
	Day ¹	Evening ²	Night ²	Day	Evening	Night
Mine and Processing Facility						
M04	33	32	35	35	36	36
M08	38	40	40	38 (+1)	40 (+3, +5)	40 (+3, +5)
M10	33	33	37	35	36	37 (+1, +2)
M22	35	37	37	36	37 (+2, +2)	37 (+2, +2)
M23	38	40	39	38 (+1)	40 (+3, +5)	39 (+3, +4)
M28	35	37	36	35	37 (+1, +2)	36 (+0, +1)
M29	35	37	36	35	37 (+1, +2)	36 (+0, +1)
All other privately-owned residences	<35	<35	<35	35	35	35
Rail Siding						
All privately-owned residences	<35	<35	<35	35	35	35

¹ Based on standard meteorological conditions

² Based on noise-enhancing meteorological conditions

Bracketed figures indicate noise levels above the existing criteria and PTNLs, respectively

The VLAMP indicates that residual noise exceedances of 0-2 dB(A) above the PNTLs would not be discernible by the average listener and therefore would not warrant receiver-based treatments or controls. On this basis, the Department considers that the predicted increases in noise levels at the majority of residences, and the resultant noise criteria, are acceptable to ensure amenity for the majority of the surrounding residences.

The VLAMP classifies noise exceedances of 3-5 dB(A) above PNTLs as moderate and requiring treatments to reduce noise levels and amenity impacts. Treatment options include providing mechanical ventilation / comfort condition systems to enable windows to be closed without compromising internal air quality / amenity, and upgrading façade elements like windows, doors, roof insulation etc to further increase the ability of the building façade to reduce noise levels.

On this basis, the Department has recommended a condition requiring SRL to implement noise mitigation treatments upon request at the two privately-owned receivers predicted to experience exceedances of the PNTLs by 3-5 dB(A) (ie. M08 Currajong Park 2 and M23 (Currajong Park 1).

The Department notes that the existing development consent includes a noise acquisition condition that requires SRL to acquire any privately owned land in the vicinity of the mine and processing facility which experiences sustained exceedances of noise acquisition criteria of 40 dB(A) L_{Aeq}(15 mins) at the request of the land owner (condition 3, Schedule 3). The Department recommends that this condition is retained to give the community options if noise levels associated with the development exceed predictions.

Low-frequency Noise

In response to a request from the EPA, Renzo Tonin completed a low frequency noise assessment for the modification which indicated that it is unlikely that any of the identified receivers would experience dominant low frequency noise and no modifying factor correction for low frequency noise is therefore required for the modification. Renzo Tonin noted that this is consistent with the outcomes of the previous NIAs for the Project. The EPA accepted this outcome.

Sleep Disturbance

Renzo Tonin assessed the potential for sleep disturbance from maximum noise level events during the night-time period. Renzo Tonin determined that the maximum noise levels from the mine and processing facility at the nearest receivers (Currajong Park 1 and 2) would be the order of 45 dBA during Year 17 of operations, which is below the maximum noise trigger level of 52 dBA (ie. RBL + 15 dB). Similarly, the maximum noise levels from the rail siding site at the nearest receivers (Glen Rock and Ballenrae West) would be 46-47 dBA over the life of the Project, which is also below the maximum noise trigger level. However, in line with the EPA's advice to set noise limits at levels already set in the approval conditions or increase to the predicted level, the Department has recommended that the current sleep disturbance limit of 45 dBA be retained for all properties, and increased only for Glen Rock and Ballenrae West.

25% Land Assessment

Renzo Tonin confirmed that no privately owned properties in the vicinity of the mine and processing facility or the rail siding are predicted to experience exceedances of the NPfl land noise criteria on more than 25% of the land where there is an existing dwelling or where a dwelling could be built under existing planning controls.

Road Traffic Noise

Renzo Tonin completed an assessment of road traffic noise at the nearest affected residences including The Bogan Way, Fifield Road, Fifield Road-Trundle Road, Platina Road, Wilmatha Road and Slee Street (see **Figure 1**), and compared the modification traffic noise levels to existing and approved traffic noise levels.

Noise modelling predicted that the daytime $L_{Aeq,15 \text{ hour}}$ and night time $L_{Aeq,9 \text{ hour}}$ traffic noise levels for receivers along all six roads are within the RNP noise criterion of 60 dB(A) and 55 dB(A) for year 2033, respectively. Predictions also indicated that the receivers along all six roads would not experience an increase of more than 2 dB(A) compared to existing traffic noise levels without the Project. The noise level change between the approved Project and the modification scenarios were also predicted to be less than 2 dB(A). Renzo Tonin therefore concluded that the modification would comply with the RNP criteria (ie. 2 dB(A) relative increase).

The Department has recommended a noise operating condition requiring SRL to implement best management practice, including all reasonable and feasible noise mitigation measures, to minimise the road traffic noise generated by the Project. On this basis, the Department accepts that road traffic noise associated with the modification is unlikely to result in adverse amenity impacts to local residences.

Noise Monitoring

The existing noise monitoring program for the Project is described in the approved Noise Management Plan (NMP), and involves attended noise monitoring at four locations representative of the privately-owned receivers most likely to be affected by noise generated by the initial construction

activities. The NMP will be required to be updated and reviewed to take into account the alterations and requirements as a result of the modification.

The Department notes that the existing noise operating conditions of consent are limited when compared to more recent mining projects. In particular, the consent does not require real-time noise monitoring, which is now considered a standard requirement for mining projects operating in the vicinity of sensitive receivers. The operation of a real-time monitoring and pro-active noise management regime is considered critically important to minimise potential noise impacts on surrounding residents. Consequently, the Department has recommended that the operating conditions and NMP be updated to require SRL to:

- take all reasonable steps to minimise noise from the construction, operational and traffic activities, during noise-enhancing meteorological conditions;
- operate a comprehensive noise management system using a combination of predictive meteorological forecasting and real-time noise monitoring data to guide operations to ensure compliance with the relevant conditions of consent;
- maintain the sound power levels of mobile equipment and plant used for the development and ensure that improvements are made to noise suppression equipment as improved technology becomes available, where reasonable and feasible; and
- carry out regular attended noise monitoring and modify or stop operations on the site if necessary to ensure compliance with the relevant conditions of consent.

Conclusion

The EPA and the Department consider that the NIA and additional noise related information provided by SRL is adequate to assess noise associated with the modification. The Department supports the EPA's recommendations in relation to operational noise criteria.

The Department accepts that the modification is unlikely to result in construction noise levels above either the existing EPL or ICNG derived construction noise criteria, and notes that the existing condition requiring SRL to minimise the noise generated during construction of the development in accordance with the best practice requirements outlined in the ICNG will continue to apply to the modified Project.

In relation to operational noise, the Department acknowledges that with the implementation of all reasonable and feasible noise mitigation measures the modified Project is still predicted to result in moderate exceedances of the existing noise limits and PNTLs at two privately-owned receivers. In accordance with the approach taken in the VLAMP, the Department has recommended that these residences be offered mitigation rights upon request. The Department has also recommended that SRL operate a real-time monitoring and pro-active noise management regime at the mine site.

Subject to the existing and recommended noise conditions, the Department considers that the potential noise impacts of the modification on surrounding residents are acceptable.

5.2 Traffic

Traffic Assessment

The Modification Report included a Road Transport Assessment (RTA) which was prepared by The Transport Planning Partnership (TPPP) in accordance with the *Guide to Traffic Generating Developments* (RTA, 2002) and applicable Austroads guidelines.

Road Traffic Impacts

TTPP indicated that the modification would result in changes to the approved impacts on the road network as a result of:

- increased construction phase workforce, accommodation camp capacity and construction stage heavy vehicle movements (traffic in both directions);
- changes to operational stage heavy vehicle movements associated with:
 - delivery of processing plant reagents;
 - movements between the mine and processing facility and the rail siding for the transport of metal sulphate and ammonium sulphate products;
 - movements to and from the rail siding for the distribution of ammonium sulphate from the rail siding
- revised rail siding location; and
- two new mine and processing facility vehicle site access points on Wilmatha Road.

Construction and Operational Traffic

Table 6 summarises the approved and modified Project daily vehicle movements forecast by TTPP for the mine and processing facility and rail siding for both the construction and operational phases. TTPP confirmed that traffic associated with other Project components would remain generally unchanged.

Table 6 | Comparison of Approved and Modified Daily Traffic Movements

Project Phase / Component	Approved Project	Modified Project
Peak Construction Phase		
Mine and Processing Facility / Accommodation Camp ¹	470	308
Rail Siding ²	130	24
Peak Operational Phase		
Mine and Processing Facility / Accommodation Camp ¹	304	270
Rail Siding ²	54	84

¹ Wilmatha Road, Fifield Road to Sunrise Lane

² Scotson Lane, The Bogan Way to Rail Siding

During the construction phase, TTPP forecast that the modified project would result in a significant decrease in daily vehicle movements in the vicinity of both the mine and processing facility and rail siding when compared to the approved project (36% and 82% reduction, respectively). TTPP indicated that the decreases are principally due to the introduction of shuttle buses to transport the construction workforce between surrounding towns and the mine and processing facility and rail siding.

During the operational phase, TTPP forecast that the modification would not significantly change the project-related daily vehicle movements, with the exception of increases in the vicinity of the rail siding associated with the transport of ammonium sulphate to agricultural operations in the region by road. Forecast operational phase increase in traffic in the vicinity of the rail siding is around 36% compared to the approved traffic movements.

TTPP further compared the approved and modified Project-related traffic at key locations (Fifield and Trundle) during the peak operational phase. This analysis indicated that compared to the approved Project, the modified Project would result in:

- Fifield (Fifield Road/Slee Street) – 20 fewer light vehicle trips per day, 4 additional bus trips per day and 4 fewer other heavy vehicle trips per day; and
- Trundle (The Bogan Way/Forbes Street) – 22 additional light vehicle trips per day, 4 additional bus trips per day and 2 fewer heavy vehicle trips per day.
- TTPP did not consider these changes in the approved traffic volumes to be significant.

Future and Cumulative Traffic

TTPP forecast the total predicted future traffic volumes on key roads, incorporating the modified Project traffic and estimated background traffic growth during operational conditions in 2033. Cumulative traffic volumes on key roads were predicted to increase only marginally compared to the approved Project (ie. between 2-8% increases based on conservative estimates). Future traffic volume increases were therefore not considered significant.

TTPP also assessed the potential cumulative impacts of the modified Project with other relevant projects including the construction of the Quorn Park Solar Farm and the Parkes Peaking Power Plant. TTPP indicated that construction related traffic may use Henry Parkes Way for all three projects, resulting in an estimated additional 452 vehicles per day on this road in addition to the forecast movements along this road in 2023 of approximately 1,577 vehicles per day. TTPP confirmed that this remains well below the capacity of the road, and no potential issues regarding road performance are expected, particularly given the short-term nature of each of the construction phases.

Road and Intersection Performance

TTPP confirmed that the capacity and performance of existing roads in the vicinity of the modified Project operate at a Level of Service (LoS) of A, which provides the best traffic conditions with no restrictions on desired travel speed of overtaking. The modification would not change the existing LoS on key roads surrounding the modified Project.

In relation to intersections, TTPP confirmed that given the forecast traffic volumes on all roads are well below the threshold volumes, there are no concerns regarding the capacity or operation of the intersections. TTPP noted that the proposed upgrades at key intersections would ensure this is the case (see below).

Vehicle Routes

TTPP confirmed that the approved routes proposed to be used by vehicles travelling to and from the Project would not change as a result of the modification. Details of the approved traffic routes are included in the existing Traffic Management Plan. In its submission on the modification, Parkes Shire Council indicated a preference that heavy vehicles use Henry Parkes Way and The Bogan Way rather than Middle Trundle Road. SRL has confirmed that it would direct the majority of construction phase traffic from Parkes along this route rather than using Middle Trundle Road as per the approved Project.

Rail Level Crossings

There are two railway lines that operate in the vicinity of the Project: the Orange Broken Hill Railway and the Bogan Gate Tottenham Railway (**Figure 1**). There is a total of seven rail level crossings on key project related traffic routes along Henry Parkes Way, The Bogan Way, Fifield Road and Scotson

Lane. TTPP indicated that as the modification would not significantly increase Project-related vehicles at these level crossings or change the approved Project rail movements, the modification is not expected to have a perceptible impact on the operation of these level crossings.

In its submission on the modification, TfNSW recommended that a level crossing feasibility study, including a safety assessment, is carried out to consider the operation of each level crossing on the transport routes for the Project. Further, comments from John Holland (the Rail Infrastructure Manager) which were included in the TfNSW submission, indicated that the Scotson Lane railway level crossing would need to be upgraded to achieve compliance with *AS 1742.7 Manual of uniform traffic control devices, Part 7: Railway crossings*.

In accordance with the TfNSW recommendation, the Department has recommended that SRL undertake rail level crossing safety assessments prior to the commencement of construction, in consultation with the Rail Infrastructure Manager, and to the satisfaction of TfNSW.

SRL would be required to determine funding arrangements with TfNSW for any incremental rail crossing upgrades deemed necessary by the rail level crossing safety assessments, and complete any incremental rail crossing upgrades prior to the commissioning of the development, or other timing as may be agreed by TfNSW. Further, the Department has recommended that if there is a dispute about the scope, timing or implementation of any rail level crossing upgrade works, then either party may refer the matter to the Planning Secretary for resolution.

Road and Intersection Upgrades and Maintenance

The approved Project requires numerous road and intersection upgrades and ongoing maintenance in accordance with the existing development consent and a VPA with councils. Details of the road and intersection upgrades and maintenance requirements are included in the existing Road Upgrade and Maintenance Strategy.

The modification would include the following additional road and intersection upgrades:

- two additional vehicle site access points from Wilmatha Road to the mine and processing facility to improve site access safety by separating light vehicle and heavy vehicle streams (see **Figure 2**).
- a 675m extension of the Scotson Lane road upgrade to reflect the modified rail siding location (**Figure 3**). The road upgrade would include an 8 m sealed pavement and 1 m gravel shoulders.

SRL has committed to design the proposed additional road and intersection upgrades in consultation with the respective local Councils as part of an update of the existing approved Road Upgrade and Maintenance Strategy. SRL has also committed to fully fund the upgrade designs and construction works.

In its submission on the modification, Parkes Shire Council indicated that it supported the proposed upgrades of Scotson Lane. However, Council recommended swept paths, signage and line marking for The Bogan Way/Fifield Trundle Road and Scotson Lane intersections. In its response, SRL confirmed that the latest designs for the intersections are included in the existing approved Road Upgrade and Maintenance Strategy. Parkes Shire Council will have the opportunity to review these designs as part of the update of the Strategy to incorporate the modification. The Department notes that the requirement to upgrade this intersection is included in the existing VPA.

Further, Parkes Shire Council requested that SRL contribute to the ongoing maintenance of the regional road, based on a 50/50 ratio for future upgrades and recommended conditions of approval requiring dilapidation surveys to undertaken for pre and post construction road condition. Council

indicated that post-construction road condition is to be at a minimum, consistent with the pre-construction standard (except where upgrades of the road/intersection are proposed).

In its response, SRL indicated that the existing development consent and VPA require extensive road and intersection upgrade and maintenance obligations, including:

- undertaking significant road and intersection upgrades during the construction phase of the Project;
- making annual road maintenance contributions throughout the life of the Project (totalling \$340,000 per annum plus CPI);
- undertaking road safety audits prior to the commissioning of the Project and contributing to the rectification of road safety measures relevant to the Project; and
- making major repair contributions for exceptional road damage or failure.

In accordance with recommendations from Council, the Department has recommended conditions requiring the two additional vehicle site access points from Wilmatha Road to the mine and processing facility and the extension of the Scotson Lane road upgrade to be undertaken in consultation with the relevant Councils and be fully funded by SRL.

Rail Siding

As detailed in Section 2.1 of this report, the modification involves the relocation of the rail siding to a site approximately 500 m to the south of the approved location on the Bogan Gate Tottenham Railway, as well as the construction and operation of an ammonium sulphate storage and distribution facility at the site.

Comments on the modification from John Holland Rail outlined various design and secondary approval requirements for the construction and operation of any structures and infrastructure within the modified rail siding area. In its response, SRL confirmed that it would be required to adhere to relevant statutory requirements under the *Rail Safety National Law (NSW) No 82a 2012* that all infrastructure users, including SRL, must adhere to. SRL committed to consult with TfNSW and the relevant RIM at the time regarding design and secondary approval requirements and obtain necessary secondary approvals for the rail siding.

The Department accepts that the construction and operation of structures and infrastructure within the modified rail siding area would be managed by the statutory requirements of TfNSW and the relevant RIM.

Traffic Mitigation and Management

As noted above, the existing development consent requires the preparation and implementation of a Road Upgrade and Maintenance Strategy (conditions 43 and 44, Schedule 3) and a Traffic Management Plan, including a Road Transport Protocol (condition 45, Schedule 3). In accordance with recommendations made by TfNSW, SRL would be required to update and review these documents to take into account the alterations and road transport impacts and incorporate mitigation and management requirements as a result of the modification.

In particular, given commitments in the Modification Report to manage traffic impacts through the use of shuttle buses, the Department has included specific requirements to monitor and report on the use of shuttle buses and to provide an updated traffic impact assessment with mitigation measures based on an annual review of traffic movements to ensure consistency with assumptions in the RTA.

Conclusion

The Department accepts that due to the introduction of shuttle buses to transport the construction workforce between surrounding towns and the mine and processing facility and rail siding, the construction related traffic associated with the modification would be significantly less than originally approved, and is therefore acceptable. The Department also accepts that the modification would not significantly change the approved operational phase traffic movements in the vicinity of mine and processing facility, and that the forecast increases in the vicinity of rail siding would not significantly impact the surrounding road or intersection performance, particularly following the proposed upgrades.

Subject to the recommended conditions, including the implementation of the VPA, the Department considers the modification's potential traffic impacts would be acceptable.

5.3 Social

Social Assessment

The Modification Report included a Social Impact Review (SIR) that was prepared by Square Peg Social Performance (SPSP) in accordance with the draft *Social Impact Assessment (SIA) Guideline State significant projects* (DPIE, 2020a) and the *Technical Supplement to support the Social Impact Assessment Guideline for State-significant projects* (SIA Guidelines) (DPIE, 2020b).

Social Impacts

The SIR identified potential social impacts associated with the modification including on the local housing market during the initial construction phase; demand for community and medical facilities during the construction phase; impacts to people's way of life and sense of safety from changes to traffic volumes, and amenity impacts from changes to the mine and processing facility and rail siding layout and activities.

SRL committed to continue to implement the following mitigation measures to minimise social impacts of the modified Project:

- preferentially sourcing suppliers from the local area where they are cost and quality competitive;
- providing operational workforce bus transport from towns in the local;
- operating high-capacity trucks to transport limestone and other materials and products to and from the mine and processing facility, to minimise heavy vehicle traffic volumes;
- deploying a community information and engagement program;
- operating in accordance with an approved management plans to mitigate impacts on traffic, air and noise; and
- continuing to make community contributions in accordance with the VPA, to support positive social outcomes, social infrastructure investments and/or community resilience improvements.

Further, specifically in relation to the modification, SRL committed to implement the following additional social impact mitigation measures:

- increasing the size of the construction workforce accommodation camp to accommodate all non-residential construction workers;
- affording mitigation upon request for two properties in accordance with the VLAMP to reduce noise levels at the residence (e.g. mechanical ventilation, upgraded façade elements or roof insulation); and
- providing construction workforce transport from towns in the locality to minimise workforce-related road traffic.

SPSP concluded that the potential social impacts associated with the modification are all assessed to be relatively contained and readily management. The Department considers that there are two aspects that require further detailed consideration – due to the significantly larger construction workforce, management of housing availability prior to the establishment of the accommodation camp, and availability of health services.

Housing Availability and Affordability

In its submissions on the modification, LCS raised concern regarding the cumulative effect of the Project on housing availability and affordability coupled with other projects in the area, particularly during the initial construction period before the accommodation camp is built.

SRL confirmed that the modification would increase the duration of the initial construction phases where the accommodation camp would not be available (as it is being constructed) from approximately 3 to 6 months. During this initial construction phase, the construction workforce size would average 211 personnel and peak at approximately 300 personnel, with an estimated 270 personnel being non-local workforce requiring accommodation.

SPSP indicated that there were a total of 293 short term accommodation units in Parkes Shire and 156 in Forbes Shire, with 2,081 rental bonds held in the locality in 2020. Based on these figures, SPSP indicated that it is likely that the short-term accommodation and rental markets would be able to cater for the additional non-local workforce during the initial 6 month construction phase.

The Department noted that this information did not consider vacancy rates and therefore actual accommodation in the localities available to support the construction workforce. Further, LSC disagreed with the information and requested it be supported with on-the-ground information from local accommodation providers and real estate agents.

In its response, SRL noted that accommodation of the construction workforce during the initial six month period is also a critical issue for the company as it has the ability to significantly impact the construction schedule. However, the ability to provide accurate accommodation availability and vacancy information is difficult as the timing of project construction commencement has not been confirmed and accommodation demand and supply fluctuate over time. Consequently, SRL committed to develop a construction phase accommodation strategy prior to the commencement of project construction. The strategy would be developed based on the accommodation demand (i.e. considering other relevant major projects) and supply situation at the time of Project construction commencement. As discussed below, the Department accepts this approach and has recommended the strategy be prepared as part of a broader Social Impact Management Plan (SIMP).

Further, in response to concerns raised by LSC about the cumulative effect of the Project on housing availability coupled with other projects in the area, SPSP broadened its analysis of cumulative social impacts to include the Mineral Hill Gold Mine, the Western Slopes Pipeline and the proposed Moomba to Wilton Pipeline modification (as well as the additional 14 project considered in the SIR). SPSP noted that, in accordance with the *Cumulative Impact Assessment Guidelines for State Significant Projects*, the latter two project proposals do not technically need to be considered given the applications for these projects were only submitted after the modification the subject of this assessment. Irrespective, SPSP concluded that the risk of cumulative social impacts of the modification, in conjunction with other projects, is manageable due to the small scale of the other projects, their distance from the Project and/or the fact that the construction timeframes would not coincide.

As discussed below, the Department has recommended that this information be confirmed as part of a SIMP, which would include up to date information on housing availability once the construction

timeframe is confirmed and an adaptive management and mitigation program to minimise and/or mitigate negative social impacts on housing markets during construction.

Health Services

LSC also raised concern about potential increased pressure on health/medical services as a result of the modification. SPSP's analysis of existing services indicated that the additional construction workforce associated with the modification is unlikely to lead to any noticeable impact on Condobolin Hospital or nearby community health centres. SRL committed to provide first aid facilities at the mine and processing facility that would minimise demand for acute health care from existing health services.

The Department notes that the modification would include an increase in the peak construction phase workforce from approximately 1,000 to 1,900 personnel and an increase to the duration of the construction phase from 2 to 3 years. The Department agrees with LSC that this may result in increased pressure on health/medical services in the locality unless specific measures are implemented to reduce demand. Consequently, the Department requested SRL provide further information on the doctor to population ratio in the locality, and consider additional measures to minimise potential impacts on the existing health care services as a result of the modification.

SRL subsequently committed to provide health services at the mine to treat minor injuries and illnesses, as well as engage a remote health service provider to provide more comprehensive on-site medical support. As discussed below, the Department has recommended that these commitments be formalised via the preparation and implementation of a SIMP.

Regional Employment Opportunities and Training

LSC questioned what SRL are doing to train local residents in the skilled roles needed for the Project. As noted above, the modified Project would result in an increase in the peak construction workforce from 1,000 to 1,900 personnel and the peak operational workforce from 335 to 340 personnel. In its response, SRL acknowledged that due to the highly specialised nature of the construction roles, it is expected that 90% of these roles would be filled by non-local workers and the remaining 10% would be filled by local residents. However, SRL committed to developing strategies to train and upskill people from the local area once the timing of construction commencement has been confirmed. The Department has recommended that these commitments be formalised via the preparation and implementation of a SIMP.

Social Mitigation and Management

Given the potential social impacts associated with the modification during construction, particularly pressure on housing availability and health care services, the Department has recommended a condition requiring SRL to prepare and implement a comprehensive and adaptive SIMP for the construction phase of the Project, in consultation with LSC, PSC, the Community Consultative Committee (CCC), the local affected community and other relevant stakeholders. The plan would:

- identify positive and negative social impacts resulting from the project during construction, in both a local and regional context;
- include an adaptive management and mitigation program to minimise and/or mitigate negative social impacts during construction;
- include a detailed description of the measures that would be implemented to:
 - mitigate impacts on housing availability and affordability;
 - mitigate impacts on services for the local community, particularly medical services; and

- promote workforce opportunities for local residents, including training initiatives in the skilled roles needed for the Project; and
- include a program to monitor, review and report on the effectiveness of these measures.

In addition, the Department notes that the existing VPA requires SRL to pay the Councils an annual Community Enhancement Contribution of \$400,000 plus CPI, as well as road maintenance contributions and road and intersection upgrade payments. The first payment was made in December 2018.

Conclusion

Overall, the Department accepts that the social impacts of the modified Project during the operational stage would not significantly increase beyond those already approved. However, the Department acknowledges that the increased construction workforce may place some pressure on housing availability and affordability for a short period of time prior to the construction of the accommodation camp. Once the accommodation camp is built, local housing markets would be unaffected by the Project. It is also acknowledged that the large construction workforce may also place pressure on local health/medical services.

The Department has recommended that SRL prepare and implement a comprehensive and adaptive SIMP to minimise and/or mitigate negative social impacts during construction.

In relation to amenity impacts, the Department considers that the specialist assessments demonstrate that the modified Project can operate within the relevant criteria, or else mitigation and management strategies are proposed to reduce the impact to acceptable levels set under NSW Government policy. The Department considers that the existing and proposed suite of comprehensive and precautionary conditions would ensure this is the case.

5.4 Other Issues

The Department is satisfied that other issues associated with the proposed modification, such as air quality and greenhouse gas emissions, biodiversity, surface water and groundwater impacts, heritage, and visual impacts would not significantly increase from the approved Project. The Department has summarised its assessment of a range of other matters in **Table 7** below.

Table 7 | Other Issues

Issue	Findings and Recommendation
Air Quality	<ul style="list-style-type: none"> • The Modification Report included an Air Quality Impact Assessment (AQIA) that was prepared by Jacob Group Australia Pty Ltd (Jacob) in accordance with <i>Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales</i> (Approved Methods) • The EPA recommended that the AQIA be revised to demonstrate that plant specific emissions of sulfuric acid comply with assessment criteria; include an assessment of impacts for the processing facility against recently amended Ambient Air Quality NEPM Standards; and provide details on the methodology for assessing speciated VOCs and demonstrate that the methodology is representative of reasonable worst-case emissions. This information was included in the Submissions Report and in additional information (see Appendix A), including revised air quality modelling. • The EPA was generally satisfied with the information provided. However, it was concerned that the assessment was based on pollutant concentrations prescribed in the POEO Regulation rather than actual plant designed specification or emissions guarantees. • Accordingly, the EPA recommended that SRL should be required to provide an Air Quality Verification Report that includes manufacturer's specifications or emission performance

Issue	Findings and Recommendation
	<p>guarantees prior to construction. The EPA also recommended that operation of the diesel generators should be limited to no more than 200 hours per year.</p> <ul style="list-style-type: none"> • Jacob confirmed that the revised air quality modelling took into account the modified layout of the processing facility; reduced height (from 80m to 40m) of the sulphuric acid plant stack; hauling and handling of ammonia sulphate; the relocated rail siding; and the additional diesel-powered generators operating 24 hours per day days per week; • Modelling of the peak construction phase and various operational phases of the modified Project under worst-case meteorological conditions indicated compliance with relevant impact assessment criteria at all private sensitive receptors surrounding the mine and processing facility and rail siding site. • Jacob also confirmed that the modification would comply with the amended Ambient Air Quality NEPM Standards at all sensitive receivers. • Further, Jacob confirmed that: <ul style="list-style-type: none"> - the air emissions generated by the modified Project would not exceed the vacant land assessment criteria of the VLAMP; and - given the distance between the modified Project and the other relevant projects, the modified Project is unlikely to result in cumulative air quality impacts. • SRL has committed to implementing a range of mitigation, management and monitoring measures for the modified Project, in accordance with its existing approved Air Quality Management Plan (AQMP). • The Department accepts that the modification is unlikely to result in a significant increase in air emissions beyond those already approved, particularly given the modification would not change the approved rate or extent of mining, processing operations or blasting activities. • Existing conditions of consent require compliance with a comprehensive set of air quality criteria (condition 18-21, Schedule 3), operating conditions (condition 22, Schedule 3) and the preparation and implementation of an AQMP (condition 23, Schedule 3) for the Project. SRL would be required to update and review the AQMP to specify site-specific air quality mitigation, management and monitoring measures for the modification. • The existing conditions also already require SRL to prepare an Air Quality Verification Report that confirms all sulphuric acid plant and power generation facility stack emission discharges will comply with the relevant requirements of the POEO Regulation and best practice emission concentrations. • The Department is satisfied that the conditions as amended would meet the intent of the EPA's recommendation and would be adequate to manage the air quality impacts of the Project.
Biodiversity	<ul style="list-style-type: none"> • The Modification Report included a Biodiversity Review that was prepared by Biodiversity Australia Pty Ltd (BA) in accordance with the Biodiversity Assessment Method (BAM). The Biodiversity Review assessed the potential biodiversity impacts associated with the construction of the new rail siding site. • BCS considered the Biodiversity Review for the rail siding site adequate and agreed that BDARs are not required for the proposed alternative alignment of the water pipeline or increase in the size of the irrigation area at the accommodation camp. • However, BSC requested a condition limiting irrigation of treated effluent to the expanded irrigation area to the construction phase only (ie. when the camp capacity is at its maximum

Issue	Findings and Recommendation
	<p>of 1,300 people) in order to reduce potential indirect impacts to the regenerating native vegetation. The Department has recommended a performance measure to this effect.</p> <ul style="list-style-type: none"> Given there would be a reduction in the native vegetation/habitat clearance associated with the new rail siding site, BA indicated that a BDAR is not required. BCS agreed with this outcome. BSC and the Department accept that the modification would result in a small reduction in the area of native vegetation requiring clearing at the new rail siding site compared to the approved site. Existing conditions of consent require the preparation and implementation of a Revegetation Strategy (conditions 33 and 34, Schedule 3) and a Biodiversity Management Plan (conditions 35 and 36, Schedule 3) for the Project. SRL would be required to update and review these documents to specify site-specific biodiversity mitigation, management and rehabilitation measures for the modification. Existing water management performance measures require the irrigation area to be managed in accordance with the <i>Environmental Guidelines: Use of Effluent by Irrigation</i>. <p>Recommendation</p> <ul style="list-style-type: none"> The Department has recommended a performance measure limiting irrigation of treated effluent to the expanded area at the accommodation during the construction phase only. Subject to the existing conditions, the Department considers that the potential impacts of the modification on biodiversity are acceptable.
Surface Water	<ul style="list-style-type: none"> The Modification Report included a Surface Water Assessment (SWA) that was prepared by Hydro Engineering Consulting Pty Ltd (HEC). The SWA assessed the potential impacts of the modification on surface water catchments and drainage, and included a revised water balance model to predict changes in the water demand and supply over the mine life. HEC indicated that the key potential surface water impacts associated with the modification include changes to site water balance; and impacts on surface water catchments, drainage and downstream water quality associated with the revised water management system at the mine and processing facility, modified rail siding and expanded treated wastewater irrigation area at the accommodation camp. As detailed in Section 2.1 and Table 1 above, the modified water management systems at the Project sites include changes to the location, number and size of some water management structures/facilities. HEC confirmed that the water balance modelling demonstrated that modified site water management system has sufficient capacity and flexibility to accommodate the full range of climate scenarios. The forecast 95th percentile water storage requirements for the modified Project peak at approximately 1,160 ML during operational Year 1 and the maximum available storage capacity is 1,871 ML. HEC therefore confirm that no discharges are predicted from the tailings storage facility (TSF), decant transfer pond, evaporation pond, mine water dams or processing plant runoff dams over the Project life. HEC predicted that there would be variable discharge volumes from the sediment dams at the mine and processing facility, accommodation camp and rail siding, however these would not be significantly different from approved discharge volumes. SRL has committed to manage controlled discharges in accordance with the existing water management performance measures and objectives specified in the development consent and the EPL 21146. SRL also committed to design, operate and maintain the expanded wastewater treatment area at the accommodation camp in accordance with <i>Environmental Guidelines: Use of Effluent by Irrigation</i> (DEC, 2004). Based on the above, HEC predict there is low risk of adverse downstream water quality impacts as a result of the modification. In terms of catchment yield and flow impacts, HEC confirmed that as the modification would not increase the extent of the approved surface disturbance area at the mine and

Issue	Findings and Recommendation
	<p>processing facility or the accommodation camp, no significant change to the approved flow impacts or drainage lines are predicted.</p> <ul style="list-style-type: none"> In terms of off-site water requirements, HEC confirmed that the modification would not significantly change the predicted average and maximum annual off-site water requirements for the construction or operational phases of the Project. Consistent with the approved Project, the maximum annual off-site water requirement during construction and operation is modelled to be 1,930 ML/a and 3,804 ML/a, respectively, with average annual off-site water requirements during the operations being in the order of 2,160 ML/a. This water would continue to be sourced from the approved borefield and the surface water extraction infrastructure on the Lachlan River. SRL confirmed that it currently holds sufficient Water Access Licenses (WALs) under the <i>Water Management Act 2000</i> to meet the predicted maximum construction and average operational off-site water demands. However additional entitlement would be required to meet the predicted maximum operational offsite water demand. SRL has confirmed that there are significant available shares for trading in the <i>Water Sharing Plan for the Lachlan Regulated River Water Source 2016</i> to meet maximum operational demands, if required. The Department accepts that the modification is unlikely to result in significant impacts to surface waters beyond those already approved, and that SRL currently holds or can trade existing WALs to account for its predicted water take. Existing conditions of consent require compliance with a comprehensive set of water management performance measures and the preparation and implementation of a Water Balance and a Surface Water Management Plan for the Project. SRL would be required to update and review these documents to specify site-specific water balance and surface water mitigation, management and monitoring measures for the modification. Subject to the existing conditions, the Department considers that the potential impacts of the modification on surface water are acceptable.
Groundwater	<ul style="list-style-type: none"> SRL indicated that the potential groundwater impacts associated with the modification would be associated with the revised mining sequence, TSF cell construction sequence and the addition of a decant transfer pond. SRL predicted that the revised mining sequence would not significantly change the predicted drawdown and groundwater inflows as the approved final open cut design and extents (including depth) would remain unchanged. Similarly, the modified TSF cell construction sequence would not significantly change the potential seepage impacts as the approved TSF design and the seepage management requirements would remain unchanged. Potential seepage impacts of the decant transfer pond are also predicted to be minor due to the shallow depth (approximately 1 m) and pond construction including a low permeability liner. The Department accepts that the modification is unlikely to result in changes to approved groundwater drawdown or seepage impacts beyond those already approved. Existing conditions of consent require compliance with minimum design requirements for the TSF and the preparation and implementation of a Groundwater Management Plan for the Project. SRL would be required to update and review the plan to specify site-specific groundwater mitigation, management and monitoring measures for the modification. <p><i>Recommendations</i></p> <ul style="list-style-type: none"> The Department has recommended conditions requiring the decant transfer pond to be designed and constructed to minimum standards and any seepage/leachate to be monitored and managed. Subject to the existing and recommended conditions, the Department considers that the potential impacts of the modification on groundwaters are acceptable.
Aboriginal Heritage	<ul style="list-style-type: none"> The Modification Report included an Aboriginal Cultural Heritage Assessment (ACHA) that was prepared by Landskape Natural and Cultural Heritage Management (Landskape) for

Issue	Findings and Recommendation
	<p>the modified rail siding site. In accordance with applicable guidelines, the ACHA included field survey and consultation with RAPs.</p> <ul style="list-style-type: none"> • Landscape indicated that, despite intensive field survey effort, no Aboriginal cultural heritage sites were identified at the rail siding site or surrounds. Landscape attributed this result to the landscape setting of the modified rail siding area, situated in the hinterland plain away from water sources, as well as past disturbance by agriculture which is likely to have removed any pre-existing Aboriginal cultural heritage sites. • In its submission on the modification, Heritage NSW concurred that the nil result is consistent with the landscape context which is unlikely to contain surviving evidence of Aboriginal objects. • Landscape concluded that the modification is unlikely to harm Aboriginal cultural heritage. The Department accepts this outcome. • Existing conditions of consent require the preparation and implementation of a Heritage Management Plan for the Project. SRL would be required to update and review this plan to include site-specific Aboriginal heritage mitigation, management and monitoring measures for the rail siding site. <p><i>Recommendations</i></p> <ul style="list-style-type: none"> • Heritage NSW recommended that the references to “Local Aboriginal Land Council” in the existing development consent be corrected to reference “Registered Aboriginal Party”. The Department has amended the conditions accordingly. • Subject to the existing and recommended conditions, the Department considers that the potential impacts of the modification on Aboriginal cultural heritage are acceptable.
Historic Heritage	<ul style="list-style-type: none"> • SRL indicated that the potential historic heritage impacts of the modification would be associated with the modified rail siding. • SRL confirmed that searches of the relevant heritage databases did not identify any historic heritage items on the site or immediate surrounds. There are also no previously recorded historic heritage sites on the site. On this basis, SRL concluded that the modification is unlikely to impact historic heritage sites. The Department accepts this outcome. • As noted above, the existing conditions require the Heritage Management Plan to be updated and reviewed to specify site-specific historic heritage mitigation, management and monitoring measures for the rail siding site. • Subject to the existing conditions, the Department considers that the potential impacts of the modification on historic heritage are acceptable.
Greenhouse Gases	<ul style="list-style-type: none"> • The AQA prepared by Jacobs included a Greenhouse Gas (GHG) Assessment which predicted GHG emissions associated with the modification. • Jacobs indicated that Scope 1 GHG emissions would be generated during construction and operation of the modified Project through diesel fuel consumption, the processing facility (primarily the acid plant), emissions from the use of explosives for blasting and emissions associated with the transport of product. Over the life of the modified Project, total Scope 1 GHG emissions are predicted to be 6.68 Mt CO₂-e, which annually is equivalent to 0.20% of NSW emissions and 0.05% of Australian emissions. Total Scope 3 emissions are predicted to be 0.09 Mt CO₂-e. No Scope 2 emissions were predicted as the site would utilise an already approved Cogen power plant of about 40 MW capacity. • Jacob predicted that the annual Scope 1 emissions associated with the modified Project are marginally lower than the approved Project (ie.0.28 Mt CO₂-e compared to 0.32 Mt CO₂-e). However, this is because the AQA for the modification included the construction phase period which generates much lower GHG emissions compared to the operational phase and therefore reduces the annual average emission estimate over the life of the Project, rather than as a result of the modification per se. • SRL committed to implement GHG mitigation and management measures for the modified Project, including minimising the re-handling of material; maintaining the mobile fleet in

Issue	Findings and Recommendation
	<p>good operating order; and optimising the design of roads to minimise the distance travelled between working areas.</p> <ul style="list-style-type: none"> The Department accepts that GHG emissions associated with the modification would not be significant in the State and Commonwealth contexts and are slightly lower than the approved emissions when considering the construction and operational contributions. The Department considers that the proposed GHG mitigation and management measures are reasonable. <p><i>Recommendation</i></p> <ul style="list-style-type: none"> The Department notes that the existing consent conditions requiring the preparation and implementation of an AQMP are outdated and do not require specific mitigation and management measures for GHG emission associated with the Project. The Department has recommended that the conditions be standardised and contemporised to include specific mitigation, management and monitoring for GHG emissions.
Visual	<ul style="list-style-type: none"> In relation to the mine and processing facility, SRL indicated that the modification would not significantly change the approved visual impacts, although it would alter the timing of visual impacts due to the changes sequencing of the waste rock emplacement and TFS construction. The level of visual modification associated with the alterations to the facility layout would not be significant in the context of approved facility. The reduced height of the reduced sulphuric acid plant stack would result in a reduction in visual impacts to surrounding sensitive receivers. In relation to the accommodation camp, SRL confirmed that the additional demountable components would be visible from road users along Sunrise Lane, however this is consistent with the approved visual impact and would not be significant in the context of the approved camp. In relation to the revised location of the rail siding, SRL confirmed that the site would visible from road users along The Bogan Way and Scotson Lane, and potentially from nearby residents. The closest privately owned residence is 'Glen Rock' which is located approximately 1 km to the west. SRL assessed the visual impacts of the rail siding to road users as low due to the relatively short period of time views would be experienced and the relatively small number of road users. SRL assessed the visual impact from the 'Glen Rock' homestead would be minimal due to the proposed lowset rail siding infrastructure. Consistent with the approved rail siding mitigation measures, SRL committed to plant vegetation screens along the boundaries of the modified rail siding to minimise views for vehicles and surrounding residences. Further, SRL committed to design the ammonium sulphate storage and distribution shed to blend into the surrounding landscape. With these measures in place, SRL concluded that the modification is not expected to significantly change the approved visual impacts of the approved Project. SRL confirmed that the scale and intensity of night-lighting at the modified Project facilities would be of a similar intensity when compared to the approved Project facilities. The Department accepts that the modification is unlikely to result in significant changes to the approved visual impacts of the Project. Existing conditions of consent require SRL to implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development, including measures to shield views of the development from users of public roads and privately-owned residences. Subject to the existing conditions, the Department considers that the potential visual impacts of the modification are acceptable.
Hazards & Risks	<ul style="list-style-type: none"> The Modification Report included a Preliminary Hazard Analysis (PHA) that was prepared by Pinnacle Risk Management Pty Ltd (PRM) in accordance with the <i>Hazardous Industry Planning Advisory Paper No. 6 – Hazard analysis</i> (DoP, 2011) for the revised layout of the

Issue	Findings and Recommendation
	<p>mine and processing facility; revised processing plant reagent types, rates and storage volumes; and the ammonium sulphate storage and distribution at the new rail siding site.</p> <ul style="list-style-type: none"> PRM found that the risks are compliant with the DoP (2011) risk criteria. PRM indicated that the primary reason for the low risk levels from the modified mine and processing facility is the separation distances between the potentially hazardous materials and equipment to the nearest private residences and also the site boundaries. For the modified rail siding, the primary reasons for the low risk levels are the low risk nature of the materials stored and the separation distances to the nearest private residences. The Department notes that this risk level has not changed from the approved Project. PRM made a series of recommendations to lower the risk associated with releases of ammonia to acceptable levels. The Department notes that the PHA conducted as part of MOD4 included the same recommendations and the existing conditions of consent require the implementation of these recommendations as part of the Final Hazard Analysis for the Project. The Department accepts that this condition will continue to apply to the modified Project. The Department notes that the existing conditions of consent in relation to Project hazards and risks are extensive, and include: <ul style="list-style-type: none"> storage, handling, use and transport of dangerous goods in accordance with applicable standards and codes; preparation and implementation of pre-construction and pre-commissioning Hazard Studies involving Fire Safety Studies, Final Hazard Analysis, Construction Safety Study, Hazard and Operability Study, Transport of Hazardous Material Study, Emergency Plans and Safety Management Systems. The Department's Hazard Unit has confirmed that the ammonium sulphate storage and handling proposed at the rail siding site is unlikely to present an unacceptable risk because the substance is not a dangerous good. Parkes Shire Council's recommendation that the Department extend the existing requirements for pre-construction and pre-commissioning Hazard Studies to the ammonium sulphate storage and distribution at the new rail siding site are therefore not considered warranted. Subject to the existing and recommended conditions, the Department considers that the potential hazard risks of the modification are acceptable. <p><i>Recommendation:</i></p> <ul style="list-style-type: none"> The Department has recommended some administrative amendments to the hazards conditions, including staging of hazard studies.
Economic	<ul style="list-style-type: none"> SRL confirmed that the modified Project is unlikely to result in significant changes to the economic effects of the approved Project as a whole. However, the proposed increase in the construction workforce from approximately 1,000 personnel to 1,900 personnel, and the increase in the duration of the construction phase from two to three years is likely to result in moderate economic benefits (eg. increased wages and business turnover) in the NSW economy. The Department accepts this outcome.
Rehabilitation	<ul style="list-style-type: none"> SRL confirmed that the modification would not change the approved rehabilitation objectives for the Project. SRL confirmed that the key features of the approved final landform at the mine and processing facility would also not change, with the exception of the location of the rehabilitate evaporation pond and addition of the decant transfer pond, which would be returned to free draining landforms. SRL confirmed that the approved post-mining land use at the mine and processing facility and accommodation camp would be retained as a combination of agriculture (pasture for grazing) and endemic woodland areas. SRL confirmed that options for the decommissioning and final land use for the rail siding include: <ul style="list-style-type: none"> decommission the rail siding infrastructure and rehabilitate the area to its former land use (i.e. agriculture); or

Issue	Findings and Recommendation
	<ul style="list-style-type: none"> - transfer ownership of the rail siding to landholders with the rail siding remaining in working condition. • SRL committed to determine the decommissioning and land use options for the modified rail siding in consultation with landowners and Council. • The Department notes that the existing development consent contains numerous conditions relating to rehabilitation, including establishing rehabilitation objectives and requiring the preparation and implementation of a Rehabilitation Management Plan (RMP). These conditions would continue to apply. <p><i>Recommendation:</i></p> <ul style="list-style-type: none"> • In order to align the existing rehabilitation conditions with the most recent statutory requirements, the Department has recommended that existing conditions be amended to require: <ul style="list-style-type: none"> - SRL to rehabilitate the mine and limestone quarry in accordance with the conditions imposed on the mining leases(s) associated with the development under the <i>Mining Act 1992</i> (other areas not covered by the mining lease would still be required to be rehabilitated to the satisfaction of the Planning Secretary); and - the preparation of a Rehabilitation Management Plan for the mine and limestone quarry only, to be prepared in accordance with the conditions imposed on the mining leases(s) associated with the development under the <i>Mining Act 1992</i>. • The Department has also recommended that SRL be required to prepare a Rehabilitation Strategy for the whole Project. The details previously required under the Rehabilitation Management Plan for the Project are now required under the Rehabilitation Strategy. The Department considers that this will ensure that rehabilitation of project components not covered by a mining lease (gas and water pipelines, rail siding and borefield) will be adequately considered, described and managed.

6 Evaluation

The Department has assessed the merits of the proposed modification and considered its potential environmental, social and economic impacts and the relevant requirements of the EP&A Act.

The Department recognises that the modification proposal involves a number of changes to the approved mine and processing facility, accommodation camp, rail siding and road transport activities which would optimise the construction and operation of the approved Project.

Strategically, the Department recognises that the modified Project would allow the efficient recovery of nickel and cobalt sulphates to supply the growing lithium-ion battery industry, and produce low-cost scandium for use in lightweight aluminium alloys for key transportation markets.

The Department notes that the modification would result in significant additional employment opportunities during construction (from 1,000 to 1,900 personnel) and operation (335 to 340 personnel) compared to the approved Project. The Department acknowledges that the increased construction workforce may place some pressure on housing availability and affordability, as well as health/medical services, for a short period of time (additional 3 months) and has consequently recommended that SRL prepare and implement a comprehensive and adaptive SIMP to minimise and/or mitigate negative social impacts during construction. Once the accommodation camp is built, local housing markets would be largely unaffected by the modified Project.

Environmental assessment indicates that the modified Project would operate largely in compliance with existing noise and air criteria, and is likely to have negligible additional impact on biodiversity,

water resources, heritage values or visual impact beyond those which are already approved. However, noise impacts would occur at 2 residences such that mitigation rights are recommended.

The traffic assessment also assumed that there would be a shuttle bus system operating between the local towns and the mine to reduce traffic impacts. The Department and TfNSW encourage the use of shuttle buses to manage fatigue and road traffic network impacts.

The Department accepts that continued implementation of the existing VPA and recommended conditions in relation to road and intersection upgrades would ensure social and traffic impacts associated with the modification are acceptable. The Department has also recommended that a Social Impact Management Plan be prepared and implemented for the construction stage – given the large increase in the peak construction workforce.

On balance, the Department is satisfied that the proposed modification can be carried out in an environmentally sustainable manner and that the proposal is in the public interest as it would make it more likely that the significant socio-economic benefits of the Project would be realized. These benefits include significant capital expenditure, the payment of substantial royalties and taxes, direct contributions to Councils through the VPA, and ongoing flow on benefits to the local and regional communities. Accordingly, the Department considers that the modification can be approved.

The Department has drafted a recommended Notice of Modification (see **Appendix C**) and consolidated version of the project approval, as modified (see **Appendix D**).

7 Determination

It is recommended that the Director Resource Assessments, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report;
- **determines** that the modification application DA374-11-00 MOD7 falls within the scope of section 4.55(2) of the EP&A Act;
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to grant approval to the modification application;
- **agrees to modify** the project approval for the Sunrise Mine Project (DA374-11-00); and
- **signs** the attached Notice of Modification (**Appendix C**).

Recommended by:



10/01/2022

Rose-Anne Hawkeswood

Team Leader
Resource Assessments

The recommendation is **Adopted** by:



18/01/2022

Stephen O'Donoghue

Director
Resource Assessments

as delegate of the Minister for Planning

Appendices

Appendix A – List of Documents

A1 - Modification Report: Refer to “Modification Report” folder on the Department’s website at <https://www.planningportal.nsw.gov.au/major-projects/project/40806>

A2 - Submissions: Refer to “Submissions” folder on the Department’s website at <https://www.planningportal.nsw.gov.au/major-projects/project/40806>

A3 - Submissions Report: Refer to “Response to Submissions” folder on the Department’s website at <https://www.planningportal.nsw.gov.au/major-projects/project/40806>

A4 - Agency Advice: Refer to “Agency Advice” folder on the Department’s website at <https://www.planningportal.nsw.gov.au/major-projects/project/40806>

A5 - Additional Information from Applicant: Refer to “Additional Information” folder on the Department’s website at <https://www.planningportal.nsw.gov.au/major-projects/project/40806>

Appendix B – Consideration of Objects of the Act

Table B1 | Consideration of the proposal against relevant objects of the EP&A Act

Objects of the EP&A Act	Consideration
(a) <i>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;</i>	<ul style="list-style-type: none"> The modification meets this object because it would optimise the construction and operation of the approved mine and associated components to allow the efficient recovery of ore resources within an existing mining lease area. The modification would enable the Project to: <ul style="list-style-type: none"> support the provision of community services and facilities through contributions to Commonwealth and State Government tax royalty and tax revenues and voluntary contributions to community initiatives; and provide considerable employment and economic benefits to the region and State. While the modification has the potential to result in both positive and negative social impacts, overall the Department considers that any negative impacts can be appropriately managed under existing and recommended conditions.
(b) <i>to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment;</i>	<ul style="list-style-type: none"> The Department's assessment has sought to integrate all significant environmental, social and economic considerations. The Department considers that the modification can be carried out in a manner that is consistent with the principles of ecologically sustainable development.
(c) <i>to promote the orderly and economic use and development of land;</i>	<ul style="list-style-type: none"> The majority of the modification would be carried out within existing project boundaries and approved disturbance areas. The proposed new rail siding site would result in a smaller area of vegetation to be cleared when compared to the approved site. The modification would optimise the construction and operational phases of the mine and other Project components, thereby making it more likely that the Project benefits would be realized. These benefits include direct employment of 1,900 people during construction and 300 people during operation; engagement of local suppliers and businesses; and provision of substantial taxes and royalties to the Commonwealth and State. The Department considers this represents an orderly and economic use of the land.
(d) <i>to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats;</i>	<ul style="list-style-type: none"> The Department has assessed the biodiversity impacts of the modification in accordance with relevant State and Commonwealth legislation, policies and guidelines. The majority of the modification would be carried out within existing approved disturbance areas. The proposed new rail siding site would require a smaller area of vegetation to be cleared compared to the approved site. The Department considers that existing conditions are adequate to ensure that the residual biodiversity impacts of the modification would be appropriately managed and offset.

Objects of the EP&A Act	Consideration
(e) <i>to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage);</i>	<ul style="list-style-type: none"> The Department has assessed the likely impacts of the modification on Aboriginal cultural heritage and historic heritage. The Department accepts that the modification is unlikely to impact any additional Aboriginal cultural or historic heritage sites beyond those already approved.
(f) <i>to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State; and</i>	<ul style="list-style-type: none"> The Department has assessed the modification application in consultation with Lachlan and Parkes Shire Councils and other relevant NSW government authorities, and given consideration to the issues raised by these agencies in its assessment.
(j) <i>to provide increased opportunity for community participation in environmental planning and assessment.</i>	<ul style="list-style-type: none"> The Department publicly exhibited the modification application. Although no public submissions were received, the Department has considered potential impacts to the surrounding communities in its assessment.

Appendix C – Notice of Modification

See the Department's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/40806>

Appendix D – Consolidated Consent

See the Department's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/40806>