

Mr Stephen O'Donoghue  
Director – Resource Assessments  
NSW Department of Planning, Housing and Infrastructure  
4 Parramatta Square, 12 Darcy Street  
PARRAMATTA NSW 2150

22 December 2025

Dear Stephen,

## Re: Sunrise Scandium-Nickel-Cobalt Mine – Modification 8 Scoping Letter

### Introduction

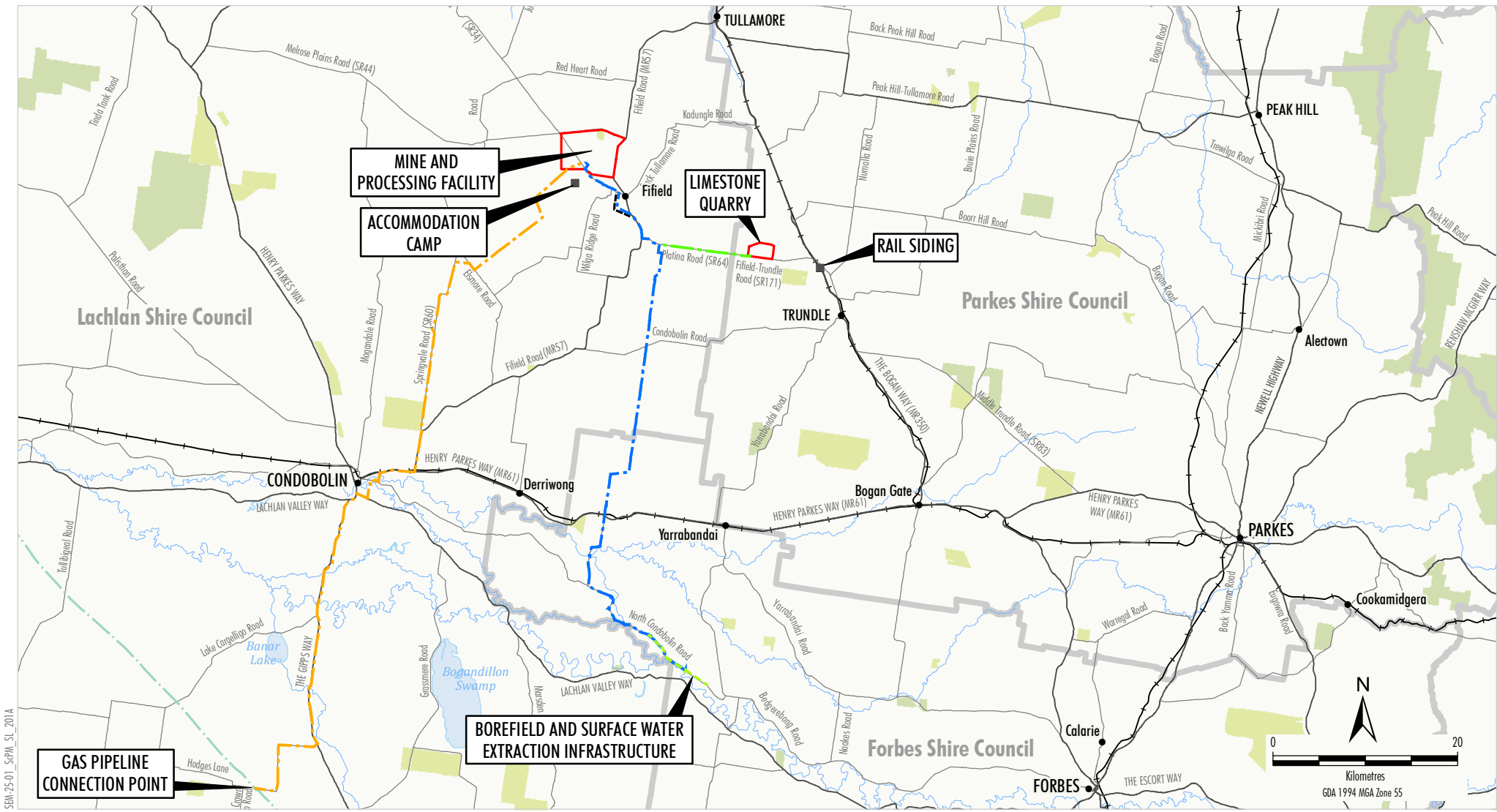
The Sunrise Scandium-Nickel-Cobalt Mine (the Project) is an open cut mining and processing project situated approximately 350 kilometres west-northwest of Sydney, in New South Wales (NSW) (Figure 1). Development Consent (DA 374-11-00) for the Project was issued under Part 4 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) in 2001. SRL Ops Pty Ltd owns the rights to develop the Project and is a wholly owned subsidiary of Sunrise Energy Metals Limited (SEM).

The Project includes the establishment and operation of the following:

- mine and processing facility (Figure 2);
- limestone quarry;
- rail siding;
- borefield, surface water extraction infrastructure and water pipeline;
- gas pipeline;
- accommodation camp; and
- associated transport activities and transport infrastructure (e.g. the Fifield Bypass, road and intersection upgrades).

The Project is approved to be staged with an initial stage focussed on scandium production (referred to as the Scandium Project) with the option to expand through a second stage nickel/cobalt project if this option becomes economically viable in the future.

SEM is proposing an application to modify Development Consent (DA 374-11-00) under section 4.55(2) of the EP&A Act to allow the changes identified during detailed planning for the development of the Scandium Project (herein referred to as the Scandium Project Optimisation Modification [or Modification]).



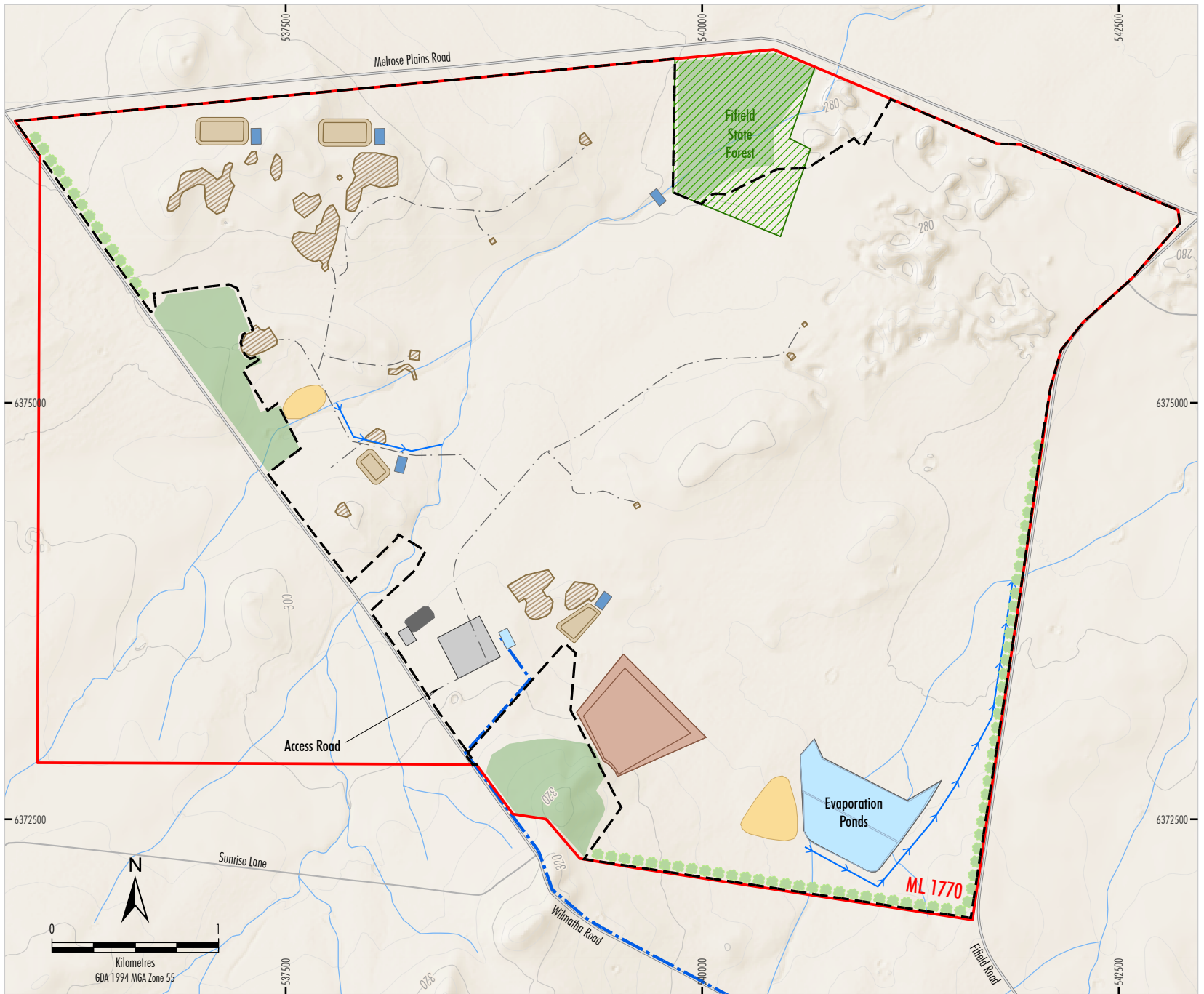
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- LEGEND**
- National Park/Conservation Area
  - State Forest
  - Local Government Boundary
  - Railway
  - Existing Gas Pipeline
  - Mining Lease Boundary (ML)
  - Gas Pipeline
  - Water Pipeline
  - Borefield Infrastructure Corridor
  - Limestone Quarry Water Pipeline
  - Fifeild Bypass

Source: Sunrise Energy Metals (2021, 2022); Clean TeQ (2017, 2018, 2020); Black Range Minerals (2000); NSW Spatial Services (2025)

**Figure 1**



- LEGEND**
- State Forest
  - Mining Lease Boundary (ML)
  - Mine and Processing Facility Surface Development Area
  - Open Cut Pit
  - Waste Rock Emplacement
  - Tailings Storage Facility
  - Soil Stockpile
  - ROM Pad
  - Mine Infrastructure Area
  - Haul Road
  - Water Storage
  - Sediment Dam
  - Diversion Structure
  - Vegetation Screening
  - Existing Open Woodland to be Maintained
  - Water Pipeline

Source: Scandium21 (2016); NSW Spatial Services (2025)



**SYERSTON SCANDIUM PROJECT**  
**Approved Mine and Processing Facility**  
**General Arrangement**

**Figure 2**

The purpose of this Scoping Letter is to provide an overview of the Modification. In accordance with the *State significant development guidelines – preparing a scoping report* (NSW Department of Planning and Environment [DPE], 2022), this Scoping Letter also identifies the matters that will require further assessment (including the proposed approach to assessment) and describes the community engagement that will be carried out during the preparation of the Modification Report.

This Scoping Letter also seeks confirmation of the approval pathway, assessment scope and consultation requirements with the NSW Department of Planning, Housing and Infrastructure (DPHI).

## Strategic Context

### *Project Context*

The Scandium Project is a smaller-scale operation compared to the full-scale Project and will involve preferentially mining scandium-rich areas to produce up to approximately 80 tonnes per annum (tpa) of scandium oxide. The Scandium Project includes the establishment and operation of the mine and processing facility; borefields, surface water extraction infrastructure and water pipeline; and associated transport activities and transport infrastructure. The Scandium Project does not require the limestone quarry, rail siding, gas pipeline or accommodation camp which are requirements of the second stage nickel/cobalt project.

SEM has refocused on the development of the Scandium Project in response to increased demand for critical minerals, including scandium. As part of this refocus, SEM is currently completing a Feasibility Study with the intention of commencing construction activities in mid-2026. The Feasibility Study process has identified changes to the approved Scandium Project that would optimise the construction and operation of the Scandium Project. The Modification includes these Feasibility Study changes and would therefore allow for the optimisation of the Scandium Project.

### *Key Strategic Planning Documents*

The Scandium Project (including the Modification) would be consistent with relevant NSW and Australian Governments strategic planning documents.

The Project is located in the Lachlan, Parkes and Forbes local government areas (LGAs) (Figure 1), which form part of the Central West and Orana region of NSW. The NSW Government's *Central West and Orana Regional Plan 2041* (NSW Department of Planning and Environment, 2022) (the Regional Plan) outlines strategic land use planning priorities for the Central West and Orana region to 2041. The Regional Plan recognises the significance of mineral resource development for the region and includes the sustainable management of extractive resource land and growth of the critical minerals sector as an objective (Objective 3 of the Regional Plan).

The NSW Government has also released the *NSW Critical Minerals and High-tech Metals Strategy 2024-35* (NSW Department of Primary Industries and Regional Development, 2024) (the NSW Critical Minerals Strategy) which sets out the NSW Government’s vision for NSW as a leader in critical minerals exploration, mining, processing, recycling and advanced manufacturing. The NSW Critical Minerals Strategy recognises scandium, as a priority critical mineral, because of its widespread industrial uses and strategic importance.

The Australian Government developed the *Critical Minerals Strategy 2023-2030* (Commonwealth of Australia, 2023) (the Australian Critical Minerals Strategy) to assist growth of the critical minerals sector, expand downstream processing and help meet global demand. Scandium is listed on the Australian Government’s Critical Minerals List, and the Project is identified in the Australian Critical Minerals Strategy.

Consistent with the Australian Critical Minerals Strategy, the Australian Government signed the *United States -Australia Framework for Securing of Supply in the Mining and Processing of Critical Minerals and Rare Earths* with the United States of America on 20 October 2025, which included commitments to support and secure supply of critical minerals and rare earths necessary for defence and advanced technologies for both countries. SEM has subsequently received a Letter of Interest from the Export-Import Bank of the United States for the potential to provide up to US \$67 million to support development of the Scandium Project.

The Modification would allow for the optimisation of the Scandium Project and would therefore support the objectives of the regional, NSW and Australian Governments outlined above.

## Modification Overview

The Modification would include the following proposed changes to the approved Scandium Project:

- minor changes to the locations and sizes of the small-scale scandium open cut pits and waste rock emplacements;
- increased open cut mining rate from approximately 100,000 to 180,000 tpa of run-of-mine ore;
- a revised processing facility area layout;
- minor revisions to processing plant reagent types, rates and storage volumes;
- a revised evaporation pond location;
- addition of a solar farm and battery energy storage system (BESS);
- addition of a new site access point on Fifield Road;
- changes to the water management system to reflect the modified mine and processing facility layout;
- addition of transport of water from a licensed water supplier to the mine and processing facility to supplement construction water supply;
- changes to heavy vehicle movements and routes;
- revised road upgrade and maintenance requirements;
- increased duration of the construction phase from one year to two years;
- a reduced peak construction phase workforce from approximately 300 to 105 personnel; and
- an increased operational phase workforce from approximately 45 to 60 personnel.

The Modification would not require additional surface development area.

The modified mine and processing facility general arrangement is provided on Figure 3.

Attachment 1 provides a comparative summary of the approved and modified Project.

## Statutory Context

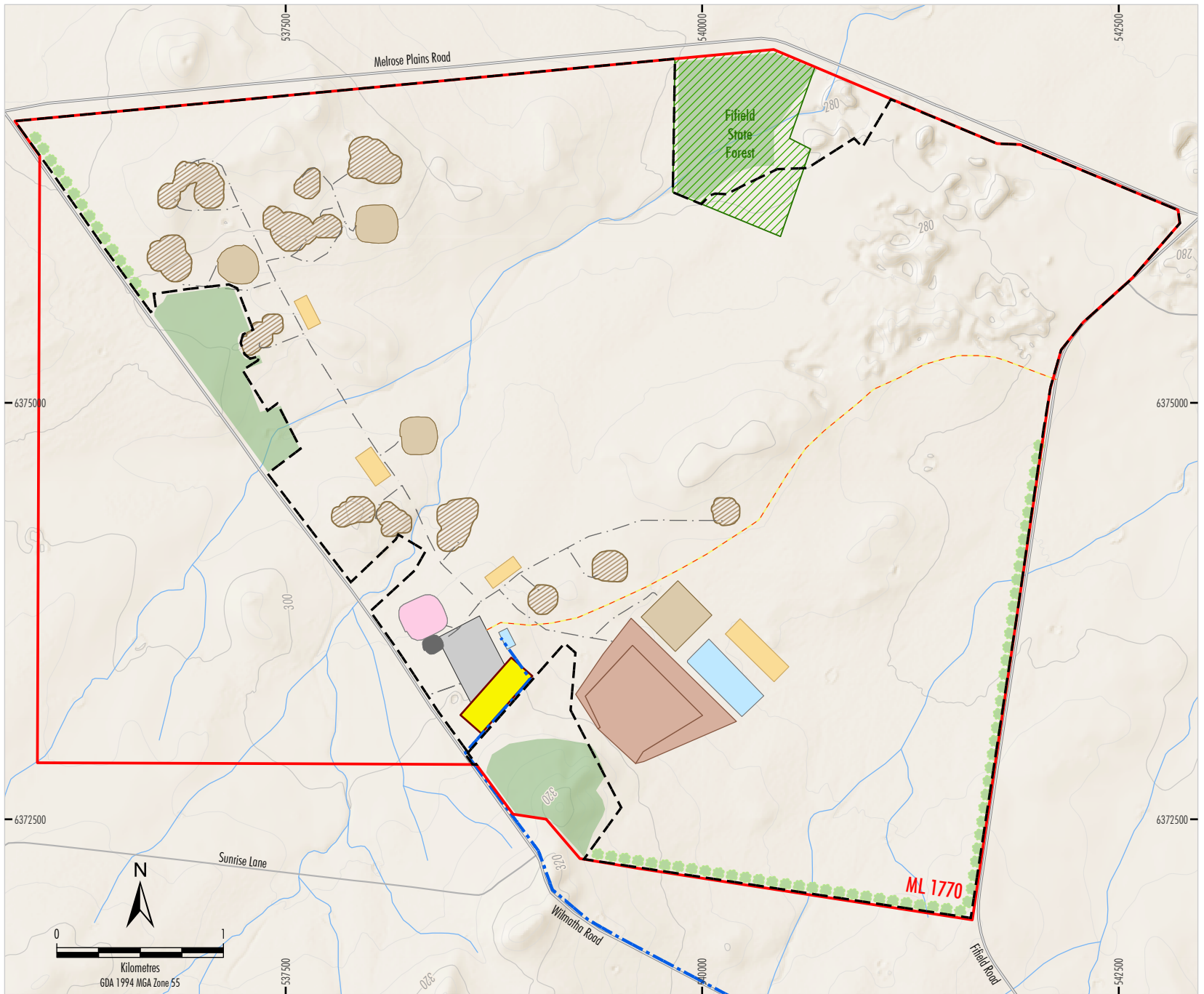
SEM proposes a modification to Development Consent (DA 374-11-00), which would be sought under section 4.55(2) of the EP&A Act on the basis that the Project incorporating the Modification would be “substantially the same”. Attachment 1 provides a comparative summary of the approved and modified Project.

The Project was referred under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in 2001 and was determined as “not a controlled action” (EPBC 2001/133). As the Modification would not include additional surface development areas, it is unlikely the Modification would have a significant impact on relevant Matters of National Environmental Significance under the EPBC Act. SEM therefore does not propose to initiate a referral for the Modification under the EPBC Act.

## Proposed Assessment of Impacts

SEM is preparing a Modification Report to address the potential environmental impacts of the Modification. The Modification Report will be prepared in accordance with the *State significant development guidelines – preparing a modification report* (NSW Department of Planning, Industry and Environment [DPIE], 2022) and include:

- a description of the approved Project and the Modification, and an explanation of any interactions with other developments;
- a description of the strategic and statutory context of the Modification;
- a summary of the stakeholder engagement undertaken for the Modification;
- an assessment of the potential environmental impacts of the Modification, including a comparison of potential environmental impacts with the approved Project;
- a description of the measures that could be implemented to avoid, mitigate, rehabilitate/remediate, monitor and/or offset the potential impacts of the Modification; and
- a justification for the Modification and an evaluation of merits.



- LEGEND**
- State Forest
  - Project**
  - Mining Lease Boundary (ML)
  - Mine and Processing Facility Surface Development Area
  - Open Cut Pit
  - Tailings Storage Facility
  - Soil Stockpile
  - ROM Pod
  - Ore Stockpile
  - Waste Rock Emplacement
  - Mine Infrastructure Area
  - Haul Road
  - New Access Road
  - Solar Farm
  - Water Storage
  - Vegetation Screening
  - Existing Open Woodland to be Maintained
  - Water Pipeline

Source: Scandium21 (2016); Sunrise Energy Metals (2025); NSW Spatial Services (2025)



**SYERSTON SCANDIUM PROJECT**  
**Modified Mine and Processing Facility**  
**General Arrangement**

**Figure 3**

SEM has reviewed the potential matters impacted by the Modification to identify those requiring further assessment in the Modification Report. The review considered:

- understanding of the local and regional context and the Project;
- feedback and outcomes from stakeholder consultation undertaken for the Modification and the Project more generally;
- the scale and nature of the likely impacts;
- the sensitivity of the receiving environment with consideration of previous assessments undertaken for the approved operations;
- potential cumulative impacts of the Project and other operations;
- the ability to avoid, minimise and/or offset the impacts of the Project; and
- the complexity of the technical assessments relevant to the Project.

The matters that were identified as requiring further assessment in the Modification Report and the proposed approach to assessing each of these matters are provided below.

#### *Road Transport Assessment*

A road transport assessment will be prepared to assess the potential road transport impacts associated with the proposed changes to heavy vehicle movements and routes, addition of a new site access point on Fifield Road, addition of the transport of water from a licensed water supplier to the mine and processing facility and revised workforce numbers. The assessment will be carried out in accordance with the *Guide to Traffic Impact Assessment* (Transport for NSW, 2024).

#### *Surface Water Review*

An assessment of the potential surface water impacts associated with the modified mine and processing facility layout will be carried out and will include a revision of the site water balance. The assessment would propose any management, mitigation, monitoring and additional licensing for the Modification.

#### *Groundwater Review*

A number of groundwater studies have been conducted for the Project to date (Golder 2000a, 2000b and 2017; Coffey, 2018). These groundwater studies indicated there would be limited potential groundwater impacts associated with the excavation of the open cut pits and potential seepage from the tailings storage facility at the mine and processing facility:

- Groundwater Drawdown – the excavation of the open cut pits has the potential to result in a predicted maximum 1 m drawdown extent within ML 1770 (Golder, 2017).
- Groundwater Inflows – the predicted groundwater inflows of up to approximately 0.0023 L/s reducing to be generally less than 0.002 L/s post-mining (Golder, 2017).
- Seepage – seepage from the tailings storage facility is not anticipated to migrate significantly beyond the tailings storage facility footprint during the Project life and thereafter the open cuts would act as a sink that would collect seepage from the tailings storage facility in the longer term (Coffey, 2018).

- Groundwater Users – given that no significant groundwater drawdown or seepage impacts are predicted, and the closest privately-owned bore is located approximately 2 km to the west of ML 1770, no significant impacts are predicted to groundwater users (Golder, 2017 and Coffey, 2018).
- Groundwater Dependent Ecosystems – the mine and processing facility is unlikely to impact terrestrial groundwater dependent ecosystems (Coffey, 2018).
- Aquifer Interference Policy – the mine and processing facility will meet the relevant minimal impact considerations outlined in the AIP (NSW Government, 2012) (Golder, 2017 and Coffey, 2018).

The potential risk to groundwater resources from the Modification would be lower than the approved full-scale Project based on the following:

- The modified small-scale scandium open cut pits would be significantly smaller in size and scale when compared to the full-scale Project open cut pits.
- The revised mining sequence is not anticipated to significantly change the predicted drawdown and groundwater inflows when compared to the full-scale Project.
- The tailings storage facility would be smaller when compared to the full-scale Project tailings storage facility.

Notwithstanding, SEM proposes to undertake a qualitative review of the potential groundwater impacts associated with the Modification.

#### *Noise Assessment*

An assessment of the potential noise impacts of the modified mine and processing facility and road transport changes (including modelling) will be conducted in accordance with the *Noise Policy for Industry* (EPA, 2017); *Interim Construction Noise Guideline* (DECC, 2009); and *Road Noise Policy* (DECCW, 2011).

#### *Air Quality Assessment*

Assessment of the potential air quality impacts of the modified mine and processing facility (including modelling) will be conducted in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA, 2022).

#### *Greenhouse Gas Assessment*

The modified greenhouse gas emissions will be considered in accordance with the *NSW Guide for Large Emitters* (Environment Protection Authority, 2025), including the modified Scandium Project contributions to state and national Greenhouse Gas inventories and targets and investigation of measures to avoid, mitigate and/or monitor the potential impacts.

### *Preliminary Hazard Analysis*

A preliminary hazard analysis will be prepared in accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021* to assess the potential hazards associated with the modified processing plant layout and processing plant reagent types, rates and storage volumes, operation of the proposed solar farm and associated BESS.

### *Other Environmental Aspects*

An assessment of potential environmental impacts (e.g. land resources, biodiversity, Aboriginal cultural heritage, historic heritage, community infrastructure) would also be included in the Modification Report.

## **Community Engagement and Proposed Consultation**

SEM met with DPHI on 4 December 2025 to discuss the proposed commencement and changes to the Scandium Project. Engagement will continue, and will include, but not necessarily be limited to:

- Lachlan Shire Council, Parkes Shire Council and Forbes Shire Council;
- Transport for NSW;
- NSW Department of Climate Change, Energy, the Environment and Water, including:
  - Water Group;
  - NSW Environment Protection Authority;
  - NSW Biodiversity Conservation and Science Directorate; and
  - Heritage NSW;
- Department of Primary Industries and Regional Development, including:
  - Mining, Exploration and Geoscience;
  - NSW Resources Regulator;
- NSW Crown Lands;
- Forestry Corporation of NSW;
- the Aboriginal community and RAPs;
- Community Consultative Committee; and
- affected landholders and other community members.

The Modification Report will address the key issues raised in consultation with these stakeholders.

## **Next Steps**

SEM is seeking the following from DPHI:

- Confirmation that the Modification can be lodged and considered by the DPHI under section 4.55(2) of the EP&A Act;
- Confirmation that the proposed scope of the Modification Report is sufficient; and
- Confirmation that the consultation for the Modification is sufficient.

Please don't hesitate to contact me at the details below if you have any queries or wish to discuss.

Sincerely,



**Bronwyn Flynn**

Environment, Approvals and Community Lead

Sunrise Energy Metals Limited

M: 0429 066 086

APPENDIX A  
SUMMARY OF THE APPROVED PROJECT AND MODIFIED PROJECT

**Table A-1**  
**Comparison of the Approved and Modified Project**

Project Component	Approved Project		Modified Scandium Project
	Scandium-Nickel-Cobalt Project (Second Stage) <sup>1,2</sup>	Scandium Project <sup>2</sup>	
Mining Tenements	Mining Lease (ML) 1770 and ML 1769.		No change.
Project Life	Construction phase – three years. Operational phase – 21 years from the commencement of mining.	Construction phase – one year. Operational phase – 21 years from the commencement of mining.	Construction phase – increase to approximately two years. No change to the operational phase.
Hours of Operation	24 hours per day, seven days per week.		No change.
Mining Method	Conventional open cut mining methods.	Conventional open cut mining methods at a rate of approximately 100,000 tpa of run-of-mine ore.	Increased open cut mining rate from approximately 100,000 to 180,000 tpa of run-of-mine ore.
Open Cut Pit Extents	Progressive development of two main open cut pits and multiple small-scale scandium open cut pits.	Progressive development of multiple small-scale scandium open cut pits.	Minor changes to the locations and sizes of the small-scale scandium open cut pits.
Waste Rock Management	Waste rock used as a construction material and deposited in small-scale scandium open cut voids and in waste rock emplacements.		Revised waste rock emplacement layout.
Processing Facility Area	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 site access points.	Key components include processing plant, limestone slurry plant, process reagent storages, workshops, warehouses, offices, fuel storages, water treatment plants, ROM pad, laydown areas and site access points.	No change to key components. Revised processing facility area layout. Addition of a new site access point on Fifield Road.
Processing Plant	Metals extracted from the ore using an acid leach circuit and a resin-in-pulp circuit/metals recovery. Autoclave feed rate of up to 2.5 million tonnes of ore (dry weight) in any calendar year.	Metals extracted from the ore using an acid leach circuit and a resin-in-pulp circuit/metals recovery. Autoclave feed rate of up to 100,000 tonnes of ore (dry weight) in any calendar year.	No change.
Processing Plant Reagents	Up to 1,050,000 tonnes per annum (tpa) of sulphuric acid produced in the sulphuric acid plant.	Up to 30,000 tpa of sulphuric acid delivered to the mine and processing facility via road.	Increased amount of sulphuric acid delivered to the mine and processing facility via road from 30,000 tpa to 35,000 tpa.
	Up to 990,000 tpa of limestone delivered to the mine and processing facility via road from either: - the limestone quarry (up to 790,000 tpa); and/or - third-party suppliers (up to 560,000 tpa).	Up to 25,000 tpa of limestone delivered to the mine and processing facility via road.	No change.
	Other processing plant reagents delivered to the mine and processing facility via road and rail.	Other processing plant reagents delivered to the mine and processing facility via road.	Minor revisions to processing plant reagent types, rates and storage volumes.

Project Component	Approved Project		Modified Scandium Project
	Scandium-Nickel-Cobalt Project (Second Stage) <sup>1,2</sup>	Scandium Project <sup>2</sup>	
Products	Up to 40,000 tpa of nickel and cobalt metal equivalents, as sulphate precipitate products. Up to 100,000 tpa of ammonium sulphate. Up to 180 tpa of scandium oxide.	Up to 80 tpa of scandium oxide. Up to 1,000 tpa of nickel and cobalt metal equivalents, as either sulphide or sulphate precipitate products.	No change.
Tailings Management	Tailings deposited in the tailings storage facility and tailings supernatant managed in combination with decant pond and evaporation pond.		Revised locations of the tailing storage facility or evaporation pond.
Water Supply	Development of borefield, surface water extraction infrastructure and water pipeline to the mine and processing facility.		Addition of transport of water from a licensed water supplier to the mine and processing facility to supplement construction water supply.
Water Management	Management in accordance with the Development Consent DA 374-11 water management performance measures.		No change to the overall water management performance measures. Changes to the water management system to reflect the modified mine and processing facility layout.
Power Supply	Co-generation power plant (40 megawatts) with diesel-powered backup generators.	Co-generation power plant (6 megawatts) with diesel-powered backup generators.	Connection to the electricity grid. Addition of a solar farm and BESS within the approved surface development area.
Exploration activities	Exploration activities within the approved surface development area inside ML 1770.		No change.
Accommodation Camp	Approximate capacity of 1,300 personnel during the construction phase. Reduced capacity of 300 personnel during the operations phase.	Accommodation camp not initially developed.	No change.
Limestone Quarry	Development of a limestone quarry to extract up to 790,000 tpa of limestone.	Limestone quarry not initially developed.	No change.
Rail Siding	Development of a rail siding on the Bogan Gate Tottenham Railway.	Rail siding not initially developed.	No change.
Gas Pipeline	Development of a gas pipeline from the Moomba Sydney Pipeline to the mine and processing facility.	Gas pipeline not initially developed.	No change.
Material Transport	Transport of reagents and products via a combination of road and rail.	Transport of reagents and products via road.	Transport of reagents and products via road. Revised heavy vehicle transport route. No change to light vehicle transport routes.
Road and Intersection Upgrades	Road and intersection upgrades in accordance with the Development Consent DA 374-11-00 and Voluntary Planning Agreement (VPA).	Smaller scale road upgrades.	Addition of a new site access point on Fifield Road. Revised road upgrade and maintenance requirements.

Project Component	Approved Project		Modified Scandium Project
	Scandium-Nickel-Cobalt Project (Second Stage) <sup>1,2</sup>	Scandium Project <sup>2</sup>	
Workforce	Peak of approximately 1,000 personnel during construction phase. Approximately 335 personnel during operation phase.	Peak of approximately 300 personnel during construction phase. Approximately 45 personnel during operation phase.	Reduced peak construction phase workforce from approximately 300 to 105 personnel. Increased operational phase workforce from approximately 45 to 60 personnel.

<sup>1</sup> Modification 7 ([Modification 7 Modification Report](#)).

<sup>2</sup> Modification 3 ([Modification 3 Environmental Assessment](#)).