Section 3

Consultation, Issue Identification and Prioritisation

PREAMBLE

This section describes the consultation undertaken during the design and evaluation phase of the Proposal, as well as during the preparation of this Environmental Impact Statement.

This information, together with a review of relevant legislation, planning documents and environmental guidelines and a range of background environmental studies was used to develop a comprehensive list of all relevant environmental issues.

A review of the design of the Proposal and the components of the local environment was undertaken to identify risk sources and potential environmental impacts for each environmental issue. The assessed risk associated with each potential impact was used to determine the relative priority of each issue, which instructed the order of assessment and breadth of coverage within Section 4.

The risk rankings were initially applied following the adoption of standard control measures and then with all proposed control measures to establish the residual risk ranking.

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3.1 INTRODUCTION

In order to undertake a comprehensive assessment of the environmental impacts arising from the Proposal, appropriate emphasis needs to be placed on those issues likely to be of greatest significance to the local environment, neighbouring landowners and the local and broader community. To ensure this has occurred, a program of community and government agency consultation and review of environmental planning documentation has been undertaken to identify relevant environmental issues and potential impacts. This was followed by an analysis of the risk posed by each potential impact in order to prioritise the assessment of the identified environmental issues within the *Environmental Impact Statement*.

3.2 CONSULTATION

3.2.1 Community Consultation

The following information describes the consultation undertaken by the Applicant with the local and surrounding landholders.

Consultation with Neighbouring Landholders

The Applicant has undertaken a long-term program of consultation with surrounding landholders since the Applicant first became associated with the project in early 2010, including one-on-one meetings and informal conversations on site and via telephone. In addition, all neighbouring landholders were provided with a private briefing immediately prior to the exhibition period commencing.

Consultation with the Wider Community

The Applicant held a community meeting at the Nyngan RSL on 7 December 2015. The meeting was attended by approximately 15 residents of Nyngan. Mr George Putnam, President, CEO and Director of the Applicant, provided an overview of the Proposal and opened the floor for general questions and discussion. The attendees asked a number of questions in relation to the processing methodology and likely employment and business opportunities associated with the Proposal. The general consensus of the attendees was that the Proposal would provide much needed employment and economic activity. One attendee made the comment that the residents of Nyngan and surrounding areas are familiar with mining operations as many rely on the existing Tritton Copper Mine for part time employment and off-farm income.

3.2.2 Government Agency Consultation

3.2.2.1 Introduction

Both formal and informal consultation was undertaken with a range of government agencies at State and local levels throughout the preparation of this document. The following subsections provide an overview of government agency consultation in formalised meetings and throughout the ongoing development of the Proposal.

3.2.2.2 Conceptual Project Development Plan Meeting

A Conceptual Project Development Plan Meeting was held with the Department of Trade and Investment Division of Resources and Energy (DRE), on 31 January 2012. At that meeting, the viability of a scandium mine, potential markets, the identified resources and the Proposal, as it was then understood, were presented. As a result of that meeting, DRE agreed to support the Proposal moving to the development application phase and advised the Department of Planning and Environment that formal government agency consultation could commence.

3.2.2.3 Planning Focus Meeting

A Planning focus meeting was held for the Proposal on 21 February 2012 with the following government agencies in attendance.

- NSW Trade and Investment (now Division of Resources and Energy).
- Bogan Shire Council.
- DPI Crown Lands.
- NSW Office of Water (now DPI Water).
- Environment Protection Authority.

During the meeting, an overview of the Proposal, as it was then understood, was presented and attendees inspected the Project Site. Following the site inspection, the attending government agencies present verbally outlined the issues from their perspectives that the *Environmental Impact Statement* should address. A number of these issues and others (including submissions by the government agencies who couldn't attend the Planning Focus Meeting) were subsequently provided to the then Department of Planning and Infrastructure in writing to assist in the formulation of the Director-General's Requirements which were provided on 19 March 2012.

3.2.2.4 Revised Secretary's Environmental Assessment Requirements

The 2012 Director-General's Requirements identified that should an application for development consent not be submitted with two years of the date of the requirements, namely by 19 March 2014, that further consultation should be undertaken. As a result, the following agencies were provided with a description of the Proposal and were requested to provide agency requirements to be included in the Secretary's Environmental Assessment Requirements (SEARs). The date of the relevant correspondence is presented in brackets.

- Department of Planning and Environment (31 October 2014).
- Roads and Maritime Services (20 November 2014).
- Bogan Shire Council (20 November 2014).
- DPI-Water (then NSW Office of Water) (4 November 2014).
- Environmental Protection Authority (4 November 2014).
- DRE (4 November 2014).
- Crown Lands (4 November 2014).
- Office of Environment and Heritage (28 November 2014).

The SEARs were provided by DP&E on 17 September 2015. A full copy of the SEARs is presented in **Appendix 2**. A tabulated summary of requirements provided by government agencies that were raised in the SEARs, or submitted by correspondence to DP&E or RWC, and where each issue is addressed in this document and accompanying documents, is presented in **Appendix 3**.

3.3 PLANNING CONTEXT

3.3.1 Introduction

A range of Commonwealth and NSW Legislation, policies and guidelines apply to the Proposal. These documents were reviewed to identify any environmental aspects requiring consideration in the *Environmental Impact Statement*. In addition, the SEARs identified a number of guideline documents that would potentially be of assistance during the preparation of the *Environmental Impact Statement* (see **Appendix 2**). A brief summary of each relevant piece of legislation and planning instrument is provided in the following subsections. The application and relevance of planning instruments related to specific environmental issues have been addressed in Section 4 and / or the relevant Specialist Consultant assessments.

3.3.2 Commonwealth Legislation

The key Commonwealth legislation relating to the Proposal is as follows.

Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) covers ‘matters of national environmental significance’. Relevant matters of national environmental significance include:

- listed threatened species and ecological communities; and
- listed migratory species protected under international agreement.

‘Actions’ are defined under the EPBC Act to include projects and developments. Actions which would or would be likely to have significant impacts on matters of national environmental significance, or which might significantly impact on Commonwealth land, are ‘controlled actions’. The Minister for the Environment determines whether a proposed action is a controlled action for the purpose of the EPBC Act. The carrying out of controlled actions are prohibited, unless approved by the Minister.

As the Ecology Assessment completed by Envirokey Pty Ltd (See Section 4.2), confirmed that the Proposal would not adversely impact on any matter of national environmental significance and therefore it is not required to be referred under the EPBC Act.

3.3.3 NSW Legislation

The key NSW legislation relating to the approvals, leases and licences required for the Proposal and their implications for the Proposal is as follows.

Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) provides the framework for the assessment and approval of development in NSW and is administered by the DP&E.

The EP&A Act aims to protect and conserve the environment through ecologically sustainable development. This is achieved through managing development to conserve resources, including agricultural land, natural areas, forests, minerals, water, and towns with the purpose of promoting social and economic welfare of the community and an enhanced environment.

Development consent is required under the EP&A Act for the purposes identified under the relevant Local Environment Plan (see Section 3.3.5). The Proposal is classified as State Significant Development in accordance with Paragraph 5 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (State and Regional Development SEPP) as it would have a capital investment value of more than $30 million. Approval is required in accordance with Division 4.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The approval authority is the Minister for Planning and Environment or their delegate. An EIS is required to be submitted to support the application.

Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) provides the framework for regulation and reduction of pollution and waste in NSW. The POEO Act is regulated by the Environment Protection Authority (EPA), which issues environment protection licences (EPLs) for wide-ranging scheduled activities, including mining for minerals, mineral processing and crushing, grinding or separating works.

The POEO Act also requires immediate reporting of pollution incidents which cause or threaten to cause material harm to the environment. All holders of EPLs are required to prepare, implement and regularly test *Pollution Incident Response Management Plans*.

An EPL will be required, as the Proposal exceeds the 1ha disturbance area specified in Section 29 of Schedule 1 of the POEO Act.

Water Management Act 2000

An objective of the *Water Management Act 2000* (WM Act) is the sustainable and integrated management of the State's water for the benefit of both present and future generations. The WM Act provides clear arrangements for controlling land-based activities that affect the quality and quantity of the State's water resources. It provides for four types of approval, namely:

- water use approval (Section 89) – which authorises the use of water at a particular location for a particular purpose, for up to 10 years;
- water management work approval (Section 90) – which authorises the construction and use of a specified water supply at a specified location;

- controlled activity approval (Section 91(2) – which authorises activities on or under waterfront land, i.e. within 40m of waterfront land; and
- aquifer interference activity approval (Section 91(3) – which authorises interference of an aquifer.

The Dictionary of the WM Act defines an aquifer interference activity as involving any of the following:

> "(a) the penetration of an aquifer,
>
> (b) the interference with water in an aquifer,
>
> (c) the obstruction of the flow of water in an aquifer,
>
> (d) the taking of water from an aquifer in the course of carrying out mining, or any other activity prescribed by the regulations,
>
> (e) the disposal of water taken from an aquifer as referred to in paragraph (d)."

For controlled activities and aquifer interference activities, the WM Act requires that the activities avoid or minimise their impact on the water resource and land degradation, and where possible the land must be rehabilitated.

This Act has been considered in the Surface Water Assessment, a summary of which is presented in Section 4.4.

National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NP&W Act) aims to manage and conserve nature, objects, places and features that have ecological and cultural value. The NP&W Act is administered and enforced by the OEH.

Aboriginal places and objects are protected under the NP&W Act. The Director-General has a database of information and records regarding Aboriginal objects whose existence and location have been reported, known as the Aboriginal Heritage Information Management System.

No Aboriginal places or objects would be disturbed by the Proposal.

Threatened Species Conservation Act 1995

The *Threatened Species Conservation Act 1995* (TSC Act) aims to conserve biodiversity and promote ecologically sustainable development by preventing extinction and promoting recovery of threatened species, populations, ecological communities and their habitats. This is done through eliminating and managing threats to the survival or evolutionary development of species, populations, ecological communities, such as the impacts of development.

This Act has been considered in the Ecology Assessment, a summary of which is described in Section 4.2.

Heritage Act 1977

The *Heritage Act 1977* aims to promote and protect the State's heritage, by preventing harm to buildings, relics or places that are on the State Heritage Register.

Under the Heritage Act, approval is required to carry out development on land on which an item listed on the State Heritage Register is located or that is subject to an interim heritage order. A conservation management plan may be entered into with respect to conserving an item listed on the State Heritage Register.

This Act has been considered in the Heritage Assessment, a summary of which is described in Section 4.9.

Noxious Weeds Act 1993

The objective of the *Noxious Weeds Act 1993* (Noxious Weeds Act) is to reduce the negative impacts of weeds on the environment by establishing mechanisms to prevent, eliminate or restrict the spread of new or significant weeds.

The Noxious Weeds Act aims to effectively manage widespread weeds through weed control orders, requiring occupiers to control noxious weeds on land and to prohibit the entry of noxious weeds into the NSW. This is enforced by inspectors appointed under the Noxious Weeds Act, who are granted wide powers of entry and inspection in relation to the control of noxious weeds.

Two noxious weed species, namely Bathurst Burr and Galvanised Burr, have been identified within the Project Site.

3.3.4 NSW Planning Issues

The following six State Environmental Planning Policies (SEPPs) are relevant to the Proposal.

- *SEPP (State and Regional Development) 2011.*
- *SEPP (Mining, Petroleum Production and Extractive Industries) 2007.*
- *SEPP (Infrastructure) 2007.*
- *SEPP 33 – Hazardous and Offensive Development.*
- *SEPP 44 – Koala Habitat Protection.*
- *SEPP 55 – Remediation of Land.*

State Environmental Planning Policy (State and Regional Development) 2011

This *State Environmental Planning Policy* (SEPP) was gazetted on 28 September 2011 and applies to all projects satisfying nominated criteria made following that date. One of the purposes of this SEPP is to define those developments of State significance and therefore requiring Ministerial approval under the provisions of the EP&A Act. This SEPP, and Part 4 – Division 4.1 of the EP&A Act, is a system introduced to specifically deal with major projects.

As the capital investment value of the Proposal would be in excess of the identified threshold of $30 million, the Proposal is identified under Schedule 1 of the SEPP and hence is designated as State Significant Development to which Part 4, Division 4.1 of the EP&A Act applies.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

This SEPP was gazetted on 17 February 2007 in recognition of the importance to NSW of mining, petroleum production and extractive industries.

The SEPP specifies matters requiring consideration in the assessment of any mining, petroleum production and extractive industry development as defined in NSW legislation. **Table 3.1** presents a summary of the matters that the Minister or his/her delegate needs to consider when assessing a new or modified Proposal and a reference to the section(s) in this *Environmental Impact Statement* where each relevant element of the SEPP is addressed.

State Environmental Planning Policy (Infrastructure) 2007

The *State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) identifies, amongst other things, the matters to be considered in the assessment of development adjacent to particular types of infrastructure.

Electricity Infrastructure

Clause 45 of the Infrastructure SEPP identifies that where development would be carried out within or immediately adjacent to an easement for electricity purposes, the determining authority must give written notice to the electricity supply authority, inviting comments about potential safety risks and take into consideration any response received.

The Applicant notes that the Proposal would require connection to a 33kV electricity transmission line that that crosses the proposed Site Access Road. As a result, the Applicant has consulted with Country Energy in relation to the construction of that transmission line.

Road Infrastructure

The Proposal includes the upgrading of the intersection of Gilgai Road and the Site Access Road. The Applicant and its traffic consultant has discussed the general extent of roadworks required with Bogan Shire Council and has engaged Constructive Solutions Pty Ltd to undertake an assessment of that intersection.

Railway Infrastructure

The Applicant has, through discussions with the Australian Rail Track Corporation, established that the use of the existing Nyngan-Cobar Railway Line is not feasible. As a result, the Proposal would not result in any impacts to railway infrastructure.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)

Hazardous and offensive industries, and potentially hazardous and offensive industries, relate to industries that, without the implementation of appropriate impact minimisation measures, would, or potentially would, pose a significant risk in relation to the locality, to human health, life or property, or to the biophysical environment.

Table 3.1
Application of Part 3 of the Mining SEPP

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Relevant SEPP Clause	Description	EIS Section
12AB: Non-discretionary development standards for mining	**Cumulative noise level** The development does not result in a cumulative amenity noise level greater than the acceptable noise levels, as determined in accordance with Table 2.1 of the Industrial Noise Policy, for residences that are private dwellings.	4.6.6
	Cumulative air quality level The development does not result in a cumulative annual average level greater than 30µg/m^3 of PM_{10} for private dwellings.	4.2.6
	Airblast overpressure Airblast overpressure caused by the development does not exceed: (a) 120 dB (Lin Peak) at any time, and (b) 115 dB (Lin Peak) for more than 5% of the total number of blasts over any period of 12 months, measured at any private dwelling or sensitive receiver.	Not Applicable
	Ground vibration Ground vibration caused by the development does not exceed: (a) 10mm/sec (peak particle velocity) at any time, and (b) 5mm/sec (peak particle velocity) for more than 5% of the total number of blasts over any period of 12 months, measured at any private dwelling or sensitive receiver.	Not Applicable
	Aquifer interference Any interference with an aquifer caused by the development does not exceed the respective water table, water pressure and water quality requirements specified for item 1 in columns 2, 3 and 4 of Table 1 of the Aquifer Interference Policy for each relevant water source listed in column 1 of that Table.	4.5.5
12: Compatibility with other land uses	Consideration is given to: • the existing uses and approved uses of land in the vicinity of the development;	4.1.5.2 and 4.14
	• the potential impact on the preferred land uses (as considered by the consent authority) in the vicinity of the development; and	Various Section 4 subsections
	• any ways in which the development may be incompatible with any of those existing, approved or preferred land uses.	
	The respective public benefits of the development and the existing, approved or preferred land uses are evaluated and compared.	4.14
	Measures proposed to avoid or minimise any incompatibility are considered.	Various Section 4 Subsections
2A: Consideration of voluntary land acquisition and mitigation policy	Before determining an application for consent for State significant development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider any applicable provisions of the voluntary land acquisition and mitigation policy and, in particular: (a) any applicable provisions of the policy for the mitigation or avoidance of noise or particulate matter impacts outside the land on which the development is to be carried out, and (b) any applicable provisions of the policy relating to the developer making an offer to acquire land affected by those impacts.	Not Applicable

Table 3.1 (Cont'd)
Application of Part 3 of the Mining SEPP

Page 2 of 2

Relevant SEPP Clause	Description	EIS Section
13: Compatibility with mining, petroleum production or extractive industry	Consideration is given to whether the development is likely to have a significant impact on current or future mining, petroleum production or extractive industry and ways in which the development may be incompatible.	5.2.2
	Measures taken by the Applicant to avoid or minimise any incompatibility are considered.	5.2.2
	The public benefits of the development and any existing or approved mining, petroleum production or extractive industry must be evaluated and compared.	4.14
14: Natural resource and environmental management	Consideration is given to ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure: • impacts on significant water resources, including surface and groundwater resources, are avoided or minimised;	4.4 and 4.5
	• impacts on threatened species and biodiversity are avoided or minimised; and	4.3
	• greenhouse gas emissions are minimised and an assessment of the greenhouse gas emissions (including downstream emissions) of the development is provided.	4.2
15: Resource recovery	The efficiency of resource recovery, including the reuse or recycling of material and minimisation of the creation of waste, is considered.	2.3 and 2.6
16: Transportation	The following transport-related issues are considered. • The transport of some or all of the materials from the Project Site by means other than public road.	2.8 and 4.7
	• Limitation of the number of truck movements that occur on roads within residential areas or roads near to schools.	4.7
	• The preparation of a code of conduct for the transportation of materials on public roads.	4.7.4
17: Rehabilitation	The rehabilitation of the land affected by the development is considered including: • the preparation of a plan that identifies the proposed end use and landform of the land once rehabilitated;	2.13 and **Figure 2.8**
	• the appropriate management of development generated waste;	2.6 and 2.10
	• remediation of any soil contaminated by the development; and	4.12
	• the steps to be taken to ensure that the state of the land does not jeopardize public safety, while being rehabilitated or at the completion of rehabilitation.	2.13

The hazardous substances and dangerous goods to be held or used on the Site are required to be identified and classified in accordance with the risk screening method contained within the document entitled *Applying SEPP 33 Final* (DP&I, 2011). Hazardous materials are defined within (DP&I, 2011) as substances falling within the classification of the *Australian Code for Transportation of Dangerous Goods by Road and Rail* (Dangerous Goods Code), (National Transport Commission, 2011).

Based on the risk screening method of DP&I (2011), storage of sulphuric acid, hydrochloric acid and LPG may be classified as potentially hazardous activities for which a Preliminary Hazard Analysis is required. **Appendix 4** presents the results of that analysis.

State Environmental Planning Policy No. 44 – Koala Habitat Protection

State Environmental Planning Policy No. 44 – Koala Habitat Protection aims to encourage the proper conservation and management of Koala habitat. As the Bogan Local Government Area is not identified in Schedule 1 of the SEPP as an area in which potential habitat may exist, SEPP 44 is not relevant to the consideration of the Proposal and is not discussed further in this document.

State Environmental Planning Policy No. 55 – Remediation of Land

SEPP 55 aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. In particular, this policy requires consideration of whether or not a development requires consent for remediation works and requires that remediation works meet certain standards and notification requirements.

As no contaminated land is present within the Project Site, SEPP 55 is not relevant to the consideration of the Proposal and is not discussed further in this document.

3.3.5 Local Planning Issues

The Applicant notes that the Project Site is situated within land zoned as RU1 – Primary Production under the *Bogan Local Environmental Plan 2011* (Bogan LEP). The objectives of Zone RU1 – Primary Production under that plan are as follows.

- "To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands.
- To minimise conflict between land uses within this zone and land uses within adjoining zones."

It is noted that open-cut mining is identified as permissible with consent within this zone.

3.4 ANALYSIS OF ENVIRONMENTAL RISK

Risk is the chance of something happening that will have an impact upon the objectives of a task. In the present case, the relevant objective is the construction and operation of the Proposal with minimal adverse impacts on the surrounding environment.

Risk is measured in terms of consequence (severity) and the likelihood (probability) of the event happening. In order to analyse the environmental risks associated with the Proposal, a structured analysis of risk involving the following individuals was undertaken on 25 February 2016.

- Mr John Thompson, Vice President of Project Development with EMC Metals Australia Pty Ltd.
- Mr George Putnam, President, CEO and Director of EMC Metals Australia Pty Ltd.
- Mr Mitchell Bland, Principal Environmental Consultant with R.W. Corkery & Co. Pty Limited.
- Ms Lauren Clear, Environmental Consultant with R.W. Corkery & Co. Pty Limited.

The group discussed and agreed upon:

- each of the likely risk sources;
- their potential consequences;
- the likely receptors / surrounding environment;
- potential environmental impacts; and
- how they could be mitigated or managed to reduce the level of impact(s).

The assessment of risk was firstly established based upon the adoption of the controls and mitigation measures that are standard throughout the mining industry. This level of risk was referred to as the risk with standard control measures. It was recognised that where it would be necessary to reduce the potential impacts beyond that achieved with standard control measures to a level considered both achievable and worthwhile, further controls or mitigation measures would need to be adopted. This level of impact after the adoption of the additional controls was referred to as residual risk. In some cases, it was accepted that the standard controls and mitigation measures would be adequate to achieve an acceptable level of impact without the need for any additional controls or mitigation measures or that the risk was already as low as reasonably practical.

Each risk source was allocated a ranking based on the potential consequences and likelihood of occurrence and in accordance with Australian Standards HB 203:2006 and AS/NZS 4360:2004. The risk analysis considers the Proposal first with the adoption of standard control measures initially and then with all proposed control measures in order to evaluate the impact of the Proposal.

Section 5.1 presents the results of the risk analysis.

3.5 PRIORITISATION OF KEY ENVIRONMENTAL ISSUES

The prioritisation of the key environmental issues as a result of the risk analysis, and hence their general order of presentation in this document, has been established through reference to the following.

- The results of the Government agency and community consultation process described in Section 3.2.
- The results of the review of relevant legislation, planning issues, policies and guidelines presented in Section 3.3.
- The results of the risk analysis presented in Section 5.1.
- The experience of RWC in assembling *Environmental Impact Statements* for similar projects.

The environmental issues identified by this identification process are the following.

1. Air Quality.
2. Ecology
3. Surface Water.
4. Groundwater.
5. Noise.
6. Transportation and Traffic.
7. Aboriginal Heritage.
8. Non-Aboriginal Heritage.
9. Visual Amenity.
10. Bushfire
11. Soils and Land Capability
12. Agricultural Lands and Enterprises.
13. Socio-Economic.