

Appendix 2

Secretary's Environmental Assessment Requirements and Requirements of other Government Agencies

(Total No. of pages including blank pages = 36)

This page has intentionally been left blank

Environmental Assessment Requirements

State Significant Development

Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*

Application Number	SSD 5157
Development	The Nyngan Scandium Project, which involves: • developing an open cut mine and associated infrastructure; • extracting and processing up to 74,000 tonnes of scandium ore a year for up to 21 years; • transporting the processed ore from the mine via road; and • rehabilitating the site.
Location	20 km west of Nyngan, in the Bogan local government area
Applicant	EMC Metals Corp
Date of Issue	17 September 2015
General Requirements	The Environmental Impact Statement (EIS) for the development must comply with the requirements in Clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>. In particular, the EIS must include: • a full description of the development, including: – the resource to be extracted, demonstrating efficient resource recovery within environmental constraints, and having regard to DRE's requirements; – the mine layout and scheduling; – ore processing; – surface infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process); – a waste (overburden, tailings, etc.) management strategy, having regard to the EPA's requirements; – a water management strategy, having regard to the EPA's and DPI's requirements; – a rehabilitation strategy, having regard to the key principles in the <i>Strategic Framework for Mine Closure</i>; and – the likely interactions between the development and any other existing, approved or proposed mining development in the vicinity of the site; • a list of any approvals that must be obtained before the development may commence; • an assessment of the likely impacts of the development on the environment, focussing on the specific issues identified below, including: – a description of the existing environment likely to be affected by the development, using sufficient baseline data; – an assessment of the likely impacts of all stages of the development, including any cumulative impacts, taking into consideration any relevant laws, environmental planning instruments, guidelines, policies, plans and industry codes of practice; – a description of the measures that would be implemented to mitigate and/or offset the likely impacts of the development, and an assessment of: ○ whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation measures that could be implemented; ○ the likely effectiveness of these measures; and ○ whether contingency plans would be necessary to manage any

	residual risks; – a description of the measures that would be implemented to monitor and report on the environmental performance of the development if it is approved; • a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; • consideration of the development against all relevant environmental planning instruments (including Part 3 of the <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>); and • the reasons why the development should be approved having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development. While not exhaustive, Attachment 1 contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of this development. In addition to the matters set out in Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>, the development application must be accompanied by a signed report from a suitably qualified expert that includes an accurate estimate of the: • capital investment value (as defined in Clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the development, including details of all the assumptions and components from which the capital investment value calculation is derived; and • jobs that would be created during each stage of the development.
Key issues	The EIS must address the following specific matters: • Land – including: - an assessment of the likely impacts of the development on the soils and land capability of the site and surrounds; - an assessment of the likely agricultural impacts of the development; - an assessment of the likely impact of the development on landforms (topography), including the long term geotechnical stability of any new landforms (such as overburden dumps); and - an assessment of the compatibility of the development with other land uses in the vicinity of the development in accordance with the requirements in Clause 12 of <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>; • Water – including: - an assessment of the likely impacts of the development on the quantity and quality of the region's surface and groundwater resources, having regard to the EPA's and DPI's requirements and the <i>NSW Aquifer Interference Policy</i>; - an assessment of the likely impacts of the development on aquifers, watercourses, riparian land, water-related infrastructure, and other water users; - an assessment of the likely flooding impacts of the development; - a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures; - demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan; - a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant Water Sharing Plan or water source embargo; and - a detailed description of the proposed water management system,

	water monitoring program and other measures to mitigate surface and groundwater impacts. • Biodiversity – including: - an assessment of the likely biodiversity impacts of the development, having regard to the principles and strategies in the <i>NSW Biodiversity Offsets Policy for Major Projects</i> and the requirements of OEH; - measures taken to avoid, reduce or mitigate impacts on biodiversity; - accurate estimates of proposed vegetation clearing; and - a comprehensive offset strategy to ensure the development maintains and improves the biodiversity values of the region in the medium to long term; • Heritage – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, having regard to the OEH's requirements; • Air Quality – including: - an assessment of the likely air quality impacts of the development in accordance with the <i>Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW</i> and the EPA's additional requirements, and having regard to the NSW Government's <i>Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments</i>; and - an assessment of the likely greenhouse gas impacts of the development, having regard to the EPA's requirements; • Noise – including: - an assessment of the likely operational noise impacts of the development (including construction noise) under the <i>NSW Industrial Noise Policy</i>, including the obligations in chapters 8 and 9 of the policy, and having regard to the NSW Government's <i>Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Development</i> and the EPA's requirements; - if a claim is made for specific construction noise criteria for certain activities, then this claim must be justified and accompanied by an assessment of the likely construction noise impacts of these activities under the <i>Interim Construction Noise Guideline</i>; and - an assessment of the likely road noise impacts of the development under the <i>NSW Road Noise Policy</i>; • Traffic and Transport – including an assessment of the likely transport impacts of the development on the capacity, condition, safety and efficiency of the local and State road network, having regard to the RMS' requirements; • Visual – including an assessment of the likely visual impacts of the development on private landowners in the vicinity of the development and key vantage points in the public domain, paying particular attention to the creation of any new landforms (bunds, etc.) and minimising the lighting impacts of the development; • Hazards – including an assessment of the likely risks to public safety, paying particular attention to potential bushfire risks and the handling and use of any dangerous goods risks, and in accordance with <i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</i>; and • Social & Economic – including: - an assessment of the likely social impacts of the development; and - an assessment of the likely economic impacts of the development, paying particular attention to: ○ the significance of the resource; ○ economic benefits of the project for the State and region; and ○ the demand for the provision of local infrastructure and services.
--	---

Consultation	During the preparation of the EIS, you must consult with relevant local, State and Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with the: • Commonwealth Department of the Environment; • Office of Environment and Heritage (including the Heritage Branch); • Environment Protection Authority; • Division of Resources and Energy within the Department of Industry; • Department of Primary Industries (DPI) (including DPI Water, NSW Forestry, Agriculture and Fisheries sections and Crown Lands); • Roads and Maritime Services; • Central West Local Land Services; and • Bogan Shire Council. The EIS must describe the consultation that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.
---------------------	--

ATTACHMENT 1

Environmental Planning Instruments, Policies, Guidelines & Plans

Land	
	Agricultural Impact Assessment Guidelines 2012 (DP&I)
	Agfact AC25: Agricultural Land Classification (NSW Agriculture)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
Water	
Water Sharing Plans	Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources
	Water Sharing Plan for the Macquarie-Cudgegong Regulated Rivers Water Source
	Water Sharing Plan for the Macquarie Bogan Unregulated and Alluvial Water Sources
Groundwater	NSW State Groundwater Policy Framework Document (NOW)
	NSW State Groundwater Quality Protection Policy (NOW)
	NSW State Groundwater Quantity Management Policy (NOW)
	NSW Aquifer Interference Policy 2012 (NOW)
	Office of Water Guidelines for Controlled Activities (2012)
	Groundwater Monitoring and Modelling Plans – Information for prospective mining and petroleum exploration activities (NOW)
	Australian Groundwater Modelling Guidelines 2012 (Commonwealth)
	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	Guidelines for the Assessment & Management of Groundwater Contamination (EPA)
Surface Water	NSW Government Water Quality and River Flow Objectives (EPA)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (EPA)
	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC)
	NSW Water Conservation Strategy (2000)
	State Water Management Outcomes Plan
	NSW State Rivers and Estuary Policy (1993)
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA)
	Managing Urban Stormwater: Soils & Construction (Landcom) and associated Volume 2E: Mines and Quarries (EPA)
	Managing Urban Stormwater: Treatment Techniques (EPA)
	Managing Urban Stormwater: Source Control (EPA)
	Technical Guidelines: Bunding & Spill Management (EPA)
	Environmental Guidelines: Use of Effluent by Irrigation (EPA)
	A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)
	NSW Guidelines for Controlled Activities on Waterfront Land (NOW)
Flooding	Floodplain Development Manual (OEH)
	Floodplain Risk Management Guideline (OEH)

Biodiversity	NSW Biodiversity Offsets Policy for Major Projects (OEH) Guidelines for Threatened Species Assessment (DP&E) BioBanking Assessment Methodology (OEH) Environmental Offsets Policy (Commonwealth DoE) NSW State Groundwater Dependent Ecosystem Policy (NOW) Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW) State Environmental Planning Policy No. 44 – Koala Habitat Protection
Heritage	The Burra Charter (The Australia ICOMOS charter for places of cultural significance) Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DP&E) Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH) NSW Heritage Manual (OEH) Statements of Heritage Impact (OEH)
Air	Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments (DPE 2014) Protection of the Environment Operations (Clean Air) Regulation 2002 Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC) Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC) National Greenhouse Accounts Factors (Commonwealth)
Noise	Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments (DPE 2014) NSW Industrial Noise Policy (EPA) NSW Road Noise Policy (DECCW) Interim Construction Noise Guideline (EPA)
Traffic	Guide to Traffic Generating Development (RMS) Road Design Guide (RMS) & relevant Austroads Standards
Public Safety	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development Hazardous and Offensive Development Application Guidelines – Applying SEPP 33 Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
Waste	Waste Classification Guidelines (EPA)
Rehabilitation	Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth) Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth) Strategic Framework for Mine Closure (ANZMEC-MCA)
Environmental Planning Instruments - General	State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 State Environmental Planning Policy (State and Regional Development) 2011 State Environmental Planning Policy (Infrastructure) 2007 Bogan Local Environmental Plan 2011

ATTACHMENT 2

Agency Correspondence



Transport
Roads & Maritime
Services

WST12/00018/02

Manager
Mining & Industry Projects
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Mr Kane Winwood

Dear Mr Winwood

**SSD5157: Nyngan Scandium Project;
Secretary's Environmental Assessment Requirements**

Roads and Maritime Services has received correspondence from R W Corkery & Co Pty Ltd seeking revised Secretary's Environmental Assessment Requirements (SEARs) for the Nyngan Scandium Project.

The supporting document submitted for this project has been reviewed and Roads and Maritime provides the following key issues which will need to be addressed in the Environmental Impact Statement:

- A traffic impact study prepared in accordance with the methodology set out in Section 2 of the RTA's *Guide to Traffic Generating Developments* and including:
 - Hours and days of construction and operation for the project and how traffic related operations will interact with other road users.
 - Road transport volumes and types broken down into origin and destination, travel routes and peak hours for the construction, operation and decommissioning of the project. The study shall provide details of projected transport operations including volumes of traffic and tonnage to be transported. Volumes shall include mine input related traffic generation (e.g. fuel deliveries, potable water deliveries, maintenance, services) and impacts of mine related traffic generation on public roads with 10 year projection figures. The traffic study shall also address internal traffic movements and parking facilities.
 - An assessment of cumulative traffic and transport impacts during construction and operation of the project.
 - Any over size and over mass vehicles and loads expected for the construction, operation and decommissioning of the project. The shortest and least trafficked route should be given priority for the movement of construction materials and machinery to minimise risk and impact to other motorists so far as is reasonably practicable.

Roads and Maritime Services

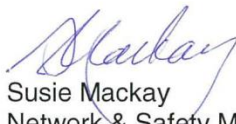
51 - 55 Currajong Street Parkes NSW 2870
PO Box 334 Parkes NSW 2870 DX 20256
www.rms.nsw.gov.au | 13 17 82

- Temporary and permanent staff numbers (including employees and contractors) during construction, operation and decommissioning of the project. Details of modes and volumes of transportation of mining staff to and from the site, measures proposed to minimise staff commuter traffic on the local and classified road network and measures to improve commuter safety shall also be included.
- The impact of traffic generated by the project and measures employed to promote traffic efficiency and road safety on the public road network during construction, operation and decommissioning of the project.
- Proposed access treatments shall be identified and be in accordance with the *Austroads Guide to Road Design* and Roads and Maritime Supplements including safe intersection sight distance. In particular, assessment of and required upgrades to the intersection of Gilgai Road and Barrier Highway (HW8) shall be provided.

Please forward a copy of the SEARs to Roads and Maritime at the same time they are sent to the applicant.

Should you require any further information please contact Andrew McIntyre (02) 6861 1453.

Yours sincerely

 14/11/14
Susie Mackay
Network & Safety Manager
Western

cc Mr Chris Dickson
Environmental Consultant
R W Corkery & Co Pty Ltd
62 Hill Street
ORANGE NSW 2800



Your reference: SSD 5157
Our reference: DOC14/302720-01
Contact: Terry Mazzer 02 6883 5302
Date: 11 December 2014

Nicholas Warren
RW Corkery and Co
Suite 5, Building 3,
Pine Rivers Office Park
205 Leitchs Road
BRENDALD QLD 4500

Dear Mr Warren

RE: SEARs for Nyngan Scandium Project (SSD 5157)

I refer to your e-mail dated 28 November 2014 seeking input from the Office of Environment and Heritage (OEH) into the Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Assessment (EIS) for the Nyngan Scandium Project.

OEH understands that the proposal would comprise an open cut mine, processing plant, waste rock emplacement, tailings storage facility, and associated infrastructure to produce approximately 28 tonnes per year of Scandium oxide. The EIS should ensure that the effects of all aspects of the project are considered, including the site access road, electricity transmission line and other infrastructure associated with the project.

OEH has reviewed the supporting documentation provided and provides SEARs for the proposed development in Attachments A and B and guidance material in Attachment C.

OEH recommends the EIS needs to appropriately address the following:

1. Biodiversity and offsetting,
2. Aboriginal cultural heritage,
3. Water and soils,
4. Flooding.

Please note that the NSW Biodiversity Offsets Policy for Major Projects <http://www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf> is now being implemented. The policy provides a standard method for assessing impacts of major projects on biodiversity and determining offsetting arrangements. The policy is underpinned by the Framework for Biodiversity Assessment (FBA) <http://www.environment.nsw.gov.au/resources/biodiversity/140675fba.pdf> which contains the assessment methodology that is adopted by the policy to quantify and describe the impact assessment requirements and offset guidance that applies to Major Projects. The FBA must be used by a proponent to assess all biodiversity values on the development site.

PO Box 2111 Dubbo NSW 2830
Level 1 48-52 Wingewarra Street Dubbo NSW
Tel: (02) 6883 5330 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environment.nsw.gov.au

If you have any questions regarding this matter further please contact Terry Mazzer on 02 6883 5302.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Peter Christie', is written over a light blue rectangular background.

PETER CHRISTIE
Senior Manager
North West Region

Attachment A - Standard Environmental Assessment Requirements
Attachment B - Project Specific Environmental Assessment Requirements
Attachment C - Guidance material

CC – Kane Winwood, Department of Planning and Environment

Attachment A – Standard Environmental Assessment Requirements

Biodiversity 1. Biodiversity impacts related to the proposed Nyngan Scandium Project are to be assessed and documented in accordance with the Framework for Biodiversity Assessment, unless otherwise agreed by OEH, by a person accredited in accordance with s142B(1)(c) of the <i>Threatened Species Conservation Act 1995</i>.
Aboriginal cultural heritage 2. The EIS must identify and describe the tangible and intangible Aboriginal cultural heritage values that exist across the whole area that will be affected by the Nyngan Scandium Project and document these in the EIS. This may include the need for surface survey and test excavation. The identification of cultural heritage values should be guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011) and consultation with OEH regional officers. 3. Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS. 4. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment will be documented and notified to OEH.
Water and soils 5. The EIS must map the following features relevant to water and soils including: a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map). b. Rivers, streams, wetlands, estuaries (as described in Appendix 2 of the Framework for Biodiversity Assessment). c. Groundwater. d. Groundwater dependent ecosystems. e. Proposed intake and discharge locations. 6. The EIS must describe background conditions for any water resource likely to be affected by the Nyngan Scandium Project, including: a. Existing surface and groundwater. b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations. c. Water Quality Objectives (as endorsed by the NSW Government http://www.environment.nsw.gov.au/ieo/index.htm) including groundwater as appropriate that represent the community's uses and values for the receiving waters.

d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the ANZECC (2000) Guidelines for Fresh and Marine Water Quality and/or local objectives, criteria or targets endorsed by the NSW Government.
7. The EIS must assess the impacts of the Nyngan Scandium Project on water quality, including: a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the Nyngan Scandium Project protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction. b. Identification of proposed monitoring of water quality.
8. The EIS must assess the impact of the Nyngan Scandium Project on hydrology, including: a. Water balance including quantity, quality and source. b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas. c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems. d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (eg river benches). e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water. f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options. g. Identification of proposed monitoring of hydrological attributes.
Flooding
9. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including: a. Flood prone land b. Flood planning area, the area below the flood planning level. c. Hydraulic categorisation (floodways and flood storage areas).
10. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 1 in 10 year, 1 in 100 year flood levels and the probable maximum flood, or an equivalent extreme event.
11. The EIS must model the effect of the proposed Nyngan Scandium Project (including fill) on the flood behaviour under the following scenarios: a. Current flood behaviour for a range of design events as identified in 8) above. The 1 in 200 and 1 in 500 year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.

- | |
|---|
| <p>12. Modelling in the EIS must consider and document:</p> <ul style="list-style-type: none">a. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood.b. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazards and hydraulic categories.c. Relevant provisions of the NSW Floodplain Development Manual 2005. |
| <p>13. The EIS must assess the impacts on the proposed Nyngan Scandium Project on flood behaviour, including:</p> <ul style="list-style-type: none">a. Whether there will be detrimental increases in the potential flood affection of other properties, assets and infrastructure.b. Consistency with Council floodplain risk management plans.c. Compatibility with the flood hazard of the land.d. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.e. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.f. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.g. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the SES and Council.h. Whether the proposal incorporates specific measures to manage risk to life from flood.i. Emergency management, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the SES.j. Any impacts the development may have on the social and economic costs to the community as consequence of flooding. |

Attachment B – Project Specific Requirements

14. Impacts on the following species and ecological communities will require further consideration and provision of the information specified in s9.2 of the Framework for Biodiversity Assessment:

- Artesian Springs Ecological Community
- Winged Peppercress *Lepidium monoplacoides*
- Coolabah Bertya *Bertya oppositifolia*
- Curly-bark Wattle *Acacia curranii*
- Lancewood *Acacia petraea*
- Shrub Sida *Sida rohlenae*
- *Oldenlandia galioides**

*This species may not appear in the Threatened Species Profile Database. Records dating from 2001 from the Canbelego Downs IBRA Subregion have recently been accepted by OEH as valid records.

Attachment C – Guidance material

Title	Web address
<u>Relevant Legislation</u>	
<i>Coastal Protection Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+13+1979+cd+0+N
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
<i>Fisheries Management Act 1994</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
<i>Marine Parks Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
<i>National Parks and Wildlife Act 1974</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
<i>Protection of the Environment Operations Act 1997</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
<i>Threatened Species Conservation Act 1995</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
<i>Water Management Act 2000</i>	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
<i>Wilderness Act 1987</i>	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
<u>Biodiversity</u>	
NSW Biodiversity Offsets Policy for Major Projects (OEH, 2013)	http://www.environment.nsw.gov.au/biodivoffsets/1480biofpolmp.htm
Framework for Biodiversity Assessment (OEH, 2013)	http://www.environment.nsw.gov.au/biodivoffsets/1480biofpolmp.htm
Fisheries NSW policies and guidelines	http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies.-guidelines-and-manuals/fish-habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, recategorisation and road adjustment policy (OEH, 2012)	http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/parks/policyRevocations.pdf
<u>Aboriginal Cultural Heritage</u>	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/comconsultation/09781ACHconsultreq.pdf

Title	Web address
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/10783FinalArchCoP.pdf
Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)	http://www.environment.nsw.gov.au/resources/cultureheritage/20110263ACHguide.pdf
Aboriginal Site Recording Form	http://www.environment.nsw.gov.au/resources/parks/SiteCardMainV1_1.pdf
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
Care Agreement Application form	http://www.environment.nsw.gov.au/resources/cultureheritage/20110914TransferObject.pdf
<u>Water and Soils</u>	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps	http://canri.nsw.gov.au/download/
Acid Sulfate Soils Manual (Stone et al. 1998)	Manual available for purchase from: http://www.landcom.com.au/whats-new/the-blue-book.aspx Chapters 1 and 2 are on DPI's Guidelines Register at: Chapter 1 Acid Sulfate Soils Planning Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Planning%20Guidelines.pdf Chapter 2 Acid Sulfate Soils Assessment Guidelines: http://www.planning.nsw.gov.au/rdaguidelines/documents/NSW%20Acid%20Sulfate%20Soils%20Assessment%20Guidelines.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.derm.qld.gov.au/land/ass/pdfs/lmg.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Flooding and Coastal Erosion	
Reforms to coastal erosion management	http://www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm
Floodplain development manual	http://www.dnr.nsw.gov.au/floodplains/manual.shtml
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans http://www.environment.nsw.gov.au/resources/coasts/101019GdlnsCZMPs.pdf
NSW Climate Impact Profile	NSW Climate Impact Profile
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality

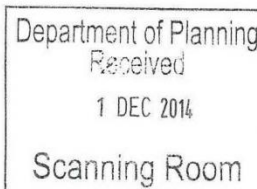
Title	Web address
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf



Our reference: SF14/35582; DOC14/284279
Contact: Ramya Gowda, 02 6883 5306

The Director
Department of Planning and Environment
PO BOX 39
SYDNEY NSW 2001

Attention: Kane Winwood
Michael Young
CC RW Corkery



Dear Mr Piovesan,

I refer to the email dated 4 November 2014 submitted by RW Corkery & Co. Pty. Ltd to the Environment Protection Authority (EPA), which included a letter regarding proposed changes to the Nyngan Scandium project (the Project), and request for revised Director Generals Requirements (DGR's).

The EPA notes that the principal changes to the Project in the proposed development since March 2012 are:

- Change in processing flow sheet to remove the previously proposed acid bake process and include a high pressure acid leach process;
- Tailings would be transferred to the Tailing Storage Facility (TSF) as slurry rather than the previously proposed filter cake. The TSF would be lined to achieve a permeability of 1×10^{-9} m/s over 900mm; and
- The area of the project site has been reduced to reflect a land swap arrangement that has been negotiated with the neighbouring landholder to ensure that all land that would be the subject of mining operations is owned by EMC Metals Corp (EMC).

The EPA would like to advise that the DGRs for this project issued in February 2012 remain valid.

Should you have any further enquiries regarding this matter please contact Ramya Gowda at the Dubbo Office of the EPA by telephoning (02) 6883 5306.

Yours sincerely

BRADLEY TANSWELL
Acting Head Far West Operations
Environment Protection Authority

PO Box 2111 Dubbo NSW 2830
Level 1 48-52 Wingewarra Street Dubbo NSW
Tel: (02) 6883 5330 Fax: (02) 6884 8675
ABN 43 692 285 758
www.epa.nsw.gov.au



OUT14/38675

Mr Michael Young
Manager Mining
Mining and Industry Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Kane Winwood (kane.winwood@planning.nsw.gov.au)

Dear Mr Young

**Nyngan Scandium Project
Revised Director General's Requirements (SSD-5157)**

I refer to an email dated 4 November 2014 from RW Corkery & Co. Pty Limited to the NSW Trade & Investment Division of Resources & Energy (DRE), inviting comments to be provided to the Department of Planning & Environment regarding revised Director General's Requirements (DGR) for the for the major project application for the Nyngan Scandium Project.

DRE has reviewed the *Nyngan Scandium Preliminary Environmental Assessment, February 2012* and the original DGR issued 19 March 2012 and provides the following comments relating to geology and resources.

Geology and Resources

Additional details to those contained within the PEA are required in the final EIS with regard to the geological description of the project and resource definition. These are:

- specific details about the location, shape, physical dimensions, mineralogy and ore mineral distribution for individual ore bodies/lenses;
- specific details of the mineralogy, whole-rock, minor and trace element geochemistry of the ore, tailings and waste rock;
- supporting information including plans and cross-sections to show the extent of the mineralised zones to be mined and those located adjacent/beneath planned mining voids which may be sterilised by the planned backfilling of the open cut(s);
- additional details about the size and depth of the open cut – with information about the location of the water table and planned base of mining;
- if more than one ore zone is to be mined then the resource estimates for each ore zone must be included;

Department of Trade & Investment, Regional Infrastructure & Services
Division of Resources and Energy
PO Box 344 Hunter Region Mail Centre NSW 2310
516 High St Maitland NSW 2323
Tel: 02 4931 6666 Fax: 02 4931 6776 www.industry.nsw.gov.au
ABN 72 189 919 072

Life of mine production schedule

The proponent must supply a life of mine production schedule for each year of operation of the mine and for the life of the project. The production schedule is to include:

- details of run-of-mine ore, low grade ore-mineralised waste and waste rock tonnage planned to be extracted for each year and for the life of the project, and an estimate of the saleable product produced for each year and the life of the project;
- in terms of text, plans or charts, an EIS must clearly show the proposed extent and sequence of the development and
- an estimate of which market segment that product tonnes would be sold into e.g. export/domestic mineral product.

DRE understands that an estimate of product tonnes split into a particular market segment is difficult to estimate at a particular point in time and is dependent on market conditions as the life of the mine progresses, however DRE requires the proponent to provide its best estimate of their market mix at the initial stages of the project.

No further comments are necessary regarding description of the existing environment, identification of impacts and constraints or rehabilitation and mine closure strategy.

DRE supports the Nyngan Scandium Project in utilising the State's valuable mineral resource while causing minor environmental impact on the environment. The approval of the project would also provide direct and flow-on benefits to local and regional communities in terms of employment and expenditure and to the people of NSW through the receipt of royalties.

Should you have any enquires regarding this matter please contact Steve Cozens, Senior Project Officer, Industry Coordination on 8281 7335.

Yours sincerely



ADRIAN DELANY
A/DIRECTOR INDUSTRY COORDINATION

24.11.14

cc: Chris Dickson, RW Corkery & Co Limited
Email: orange@rwcorkery.com

From: [Wayne Jones](#)
To: [Kane Winwood](#)
Subject: Nyngan Scandium Project [SSD_5157] SEARs
Date: Monday, 17 November 2014 12:00:22 PM
Attachments: [Land comment.docx](#)

Hi Kane

Please see following draft copy of DPI response addressed to R W Corkery providing SEARs for the above project. Also attached is copy of Crown Lands requirements forwarded directly to R W Corkery.

Regards

Wayne

OUT14/37837

Mr Chris Dickson

Environmental Consultant

R.W. Corkery & Co Pty Limited

PO Box 239

BROOKLYN NSW 2083

Dear Mr Dickson,

Nyngan Scandium Project [SSD_5157]

Request for input into Secretary's Environmental Assessment Requirements

I refer to your letter dated 4 November 2014 to the Department of Primary Industries, NSW Office of Water in respect to the above matter. It is requested that any future requests to the Department be emailed to Landuse.enquiries@dpi.nsw.gov.au to ensure all departmental agencies are provided the opportunity to submit comments.

NSW Office of Water Comments

The NSW Office of Water (Office of Water) has reviewed the supporting documentation accompanying the request for revised Secretary's Environmental Assessment Requirements (SEARs) and provides the following comments below, and further detail in **Attachment A**.

It is recommended that the EIS be required to include:

- Details of water proposed to be taken (including through inflow and seepage) from each surface and groundwater source as defined by the relevant water sharing plan.
- Assessment of any volumetric water licensing requirements (including those for ongoing water take following completion of the project).
- The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.
- A detailed and consolidated site water balance.
- A detailed assessment against the NSW Aquifer Interference Policy (2012) using the NSW Office of Water's assessment framework.
- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.
- An assessment of any proposed modification to surface water management including modelling of redistribution of waters and an assessment of impact on neighbouring properties and the associated watercourse and floodplain.
- Full technical details and data of all surface and groundwater modelling, and an independent peer review.
- Proposed surface and groundwater monitoring activities and methodologies.
- Proposed management and disposal of produced or incidental water.
- Details surrounding the final landform of the site, including final void management (where

relevant) and rehabilitation measures.

- Assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts.
- Consideration of relevant policies and guidelines.
- A statement of where each element of the SEARs is addressed in the EIS (i.e. in the form of a table).

For further information please contact Tim Baker, Senior Water Regulation Officer (Dubbo Office) on 6841 7403 or at tim.baker@water.nsw.gov.au.

Attachment A
Nyngan Scandium Project [SSD_5157]
Request for Input into Secretary's Environmental Assessment Requirements
Additional Comment by NSW Office of Water

The following detailed assessment requirements are provided to assist in adequately addressing the assessment requirements for this proposal.

For further information visit the NSW Office of Water website, www.water.nsw.gov.au.

Key Relevant Legislative Instruments

This section provides a basic summary to aid proponents in the development of an Environmental Impact Statement (EIS), and should not be considered a complete list or comprehensive summary of relevant legislative instruments that may apply to the regulation of water resources for a project. The EIS should take into account the objects and regulatory requirements of the *Water Act 1912* (WA 1912) and *Water Management Act 2000* (WMA 2000), and associated regulations and instruments, as applicable.

Water Management Act 2000 (WMA 2000)

Key points:

- Volumetric licensing in areas covered by water sharing plans,
- Works within 40m of waterfront land,
- SSD & SSI projects are exempt from requiring water supply work approvals and controlled activity approvals as a result of the *Environmental Planning & Assessment Act 1979 (EP&A Act)*,
- No exemptions for volumetric licensing apply as a result of the *EP&A Act*,
- Basic landholder rights, including harvestable rights dams,
- Aquifer interference activity approval and flood management work approval provisions have not yet commenced and are regulated by the *Water Act 1912*,
- Maximum penalties of \$2.2 million plus \$264,000 for each day an offence continues apply under the *WMA 2000*.

Water Act 1912 (WA 1912)

Key points:

- Volumetric licensing in areas where no water sharing plan applies,
- Monitoring bores,
- Aquifer interference activities that are not regulated as a water supply work under the *WMA 2000*,
- Flood management works,
- No exemptions apply to licences or permits under the *WA 1912* as a result of the *EP&A Act*,
- Regulation of water bore driller licensing.

Water Management (General) Regulation 2011

Key points:

- Provides various exemptions for volumetric licensing and activity approvals,
- Provides further detail on requirements for dealings and applications.

Water Sharing Plans – these are considered regulations under the *WMA 2000*

Access Licence Dealing Principles Order 2004

Harvestable Rights Orders

Water Sharing Plans

The proposal is located within the area covered by the *Water Sharing Plan for the NSW Murray*

Darling Basin Fractured Rock Groundwater Sources, Water Sharing Plan for the Macquarie-Cudgegong Regulated Rivers Water Source and the Water Sharing Plan for the Macquarie Bogan Unregulated and Alluvial Water Sources. The EIS is required to:

- Demonstrate how the proposal is consistent with the relevant rules of the Water Sharing Plan including rules for access licences, distance restrictions for water supply works and rules for the management of local impacts in respect of surface water and groundwater sources, ecosystem protection (including groundwater dependent ecosystems), water quality and surface-groundwater connectivity.
- Provide a description of any site water use (amount of water to be taken from each water source) and management including all sediment dams, clear water diversion structures with detail on the location, design specifications and storage capacities for all the existing and proposed water management structures.
- Provide an analysis of the proposed water supply arrangements against the rules for access licences and other applicable requirements of any relevant WSP, including:
 - Sufficient market depth to acquire the necessary entitlements for each water source.
 - Ability to carry out a “dealing” to transfer the water to relevant location under the rules of the WSP.
 - Daily and long-term access rules.
 - Account management and carryover provisions.
- Provide a detailed and consolidated site water balance.
- Further detail on licensing requirements is provided below.

Relevant Policies and Guidelines

The EIS should take into account the following policies (as applicable):

- NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012).
- NSW Aquifer Interference Policy (NOW, 2012).
- Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012).
 - Australian Groundwater Modelling Guidelines (NWC, 2012).
- NSW State Rivers and Estuary Policy (1993).
- NSW State Groundwater Policy Framework Document (1997).
- NSW State Groundwater Quality Protection Policy (1998).
- NSW State Groundwater Dependent Ecosystems Policy (2002).
 - NSW Water Extraction Monitoring Policy (2007).

Office of Water policies can be accessed at the following links:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx>
<http://www.water.nsw.gov.au/Water-licensing/Approvals/Controlled-activities/default.aspx>

An assessment framework for the NSW Aquifer Interference Policy can be found online at:
<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference>.

Licensing Considerations

The EIS is required to provide:

- Identification of water requirements for the life of the project in terms of both volume and timing (including predictions of potential ongoing groundwater take following the cessation of operations at the site – such as evaporative loss from open voids or inflows).
- Details of the water supply source(s) for the proposal including any proposed surface water and groundwater extraction from each water source as defined in the relevant Water Sharing Plan/s and all water supply works to take water.
- Explanation of how the required water entitlements will be obtained (i.e. through a new or existing licence/s, trading on the water market, controlled allocations etc).
- Information on the purpose, location, construction and expected annual extraction

volumes including details on all existing and proposed water supply works which take surface water, (pumps, dams, diversions, etc).

- Details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring. All predicted groundwater take must be accounted for through adequate licensing.
- Details on existing dams/storages (including the date of construction, location, purpose, size and capacity) and any proposal to change the purpose of existing dams/storages.
- Details on the location, purpose, size and capacity of any new proposed dams/storages.
- Applicability of any exemptions under the *Water Management (General) Regulation 2011* to the project.

Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered.

The Harvestable Right gives landholders the right to capture and use for any purpose 10% of the average annual runoff from their property. The Harvestable Right has been defined in terms of an equivalent dam capacity called the Maximum Harvestable Right Dam Capacity (MHRDC). The MHRDC is determined by the area of the property (in hectares) and a site-specific run-off factor. The MHRDC includes the capacity of all existing dams on the property that do not have a current water licence. Storages capturing up to the harvestable right capacity are not required to be licensed but any capacity of the total of all storages/dams on the property greater than the MHRDC may require a licence.

For more information on Harvestable Right dams, including a calculator, visit:

<http://www.water.nsw.gov.au/Water-licensing/Basic-water-rights/Harvesting-runoff/Harvesting-runoff>

Dam Safety

Where new or modified dams are proposed, or where new development will occur below an existing dam, the NSW Dams Safety Committee should be consulted in relation to any safety issues that may arise. Conditions of approval may be recommended to ensure safety in relation to any new or existing dams.

See www.damsafety.nsw.gov.au for further information.

Surface Water Assessment

The predictive assessment of the impact of the proposed project on surface water sources should include the following:

- Identification of all surface water features including watercourses, wetlands and floodplains transected by or adjacent to the proposed project.
- Identification of all surface water sources as described by the relevant water sharing plan.
- Detailed description of dependent ecosystems and existing surface water users within the area, including basic landholder rights to water and adjacent/downstream licensed water users.
- Description of all works and surface infrastructure that will intercept, store, convey, or otherwise interact with surface water resources.
- Assessment of predicted impacts on the following:
 - flow of surface water, sediment movement, channel stability, and hydraulic regime,
 - water quality,
 - flood regime,
 - dependent ecosystems,
 - existing surface water users, and
 - planned environmental water and water sharing arrangements prescribed in the relevant water sharing plans.

Groundwater Assessment

To ensure the sustainable and integrated management of groundwater sources, the EIS needs to include adequate details to assess the impact of the project on all groundwater sources including:

- Works likely to intercept, connect with or infiltrate the groundwater sources.
- Any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Bore construction information is to be supplied to the Office of Water by submitting a "Form A" template. The Office of Water will supply "GW" registration numbers (and licence/approval numbers if required) which must be used as consistent and unique bore identifiers for all future reporting.
- A description of the watertable and groundwater pressure configuration, flow directions and rates and physical and chemical characteristics of the groundwater source (including connectivity with other groundwater and surface water sources).
- Sufficient baseline monitoring for groundwater quantity and quality for all aquifers and GDEs to establish a baseline incorporating typical temporal and spatial variations.
- The predicted impacts of any final landform on the groundwater regime.
- The existing groundwater users within the area (including the environment), any potential impacts on these users and safeguard measures to mitigate impacts.
- An assessment of groundwater quality, its beneficial use classification and prediction of any impacts on groundwater quality.
- An assessment of the potential for groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).
- Measures proposed to protect groundwater quality, both in the short and long term.
- Measures for preventing groundwater pollution so that remediation is not required.
- Protective measures for any groundwater dependent ecosystems (GDEs).
- Proposed methods of the disposal of waste water and approval from the relevant authority.
- The results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- An assessment of any groundwater source/aquifer that may be sterilised from future use as a water supply as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Groundwater Dependent Ecosystems

The EIS must consider the potential impacts on any Groundwater Dependent Ecosystems (GDEs) at the site and in the vicinity of the site and:

- Identify any potential impacts on GDEs as a result of the proposal including:
 - the effect of the proposal on the recharge to groundwater systems;
 - the potential to adversely affect the water quality of the underlying groundwater system and adjoining groundwater systems in hydraulic connections; and
 - the effect on the function of GDEs (habitat, groundwater levels, connectivity).
- Provide safeguard measures for any GDEs.

Watercourses, Wetlands and Riparian Land

The EIS should address the potential impacts of the project on all watercourses likely to be affected by the project, existing riparian vegetation and the rehabilitation of riparian land. It is recommended the EIS provides details on all watercourses potentially affected by the proposal, including:

- Scaled plans showing the location of:
 - wetlands/swamps, watercourses and top of bank;
 - riparian corridor widths to be established along the creeks;
 - existing riparian vegetation surrounding the watercourses (identify any areas to be protected and any riparian vegetation proposed to be removed);
 - the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas; and
 - proposed location of any asset protection zones.
- Photographs of the watercourses/wetlands and a map showing the point from which the photos were taken.
- A detailed description of all potential impacts on the watercourses/riparian land.
- A detailed description of all potential impacts on the wetlands, including potential impacts to the wetlands hydrologic regime; groundwater recharge; habitat and any species that depend on the wetlands.
- A description of the design features and measures to be incorporated to mitigate potential impacts.
- Geomorphic and hydrological assessment of water courses including details of stream order (Strahler System), river style and energy regimes both in channel and on adjacent floodplains.

Drill Pad, Well and Access Road Construction

- Any construction activity within 40m of a watercourse, should be designed by a suitably qualified person, consistent with the *NSW Guidelines for Controlled Activities on Waterfront Land* (July 2012).
- Construction of all wells must be undertaken in accordance with the *Minimum Construction Requirements for Water Bores in Australia* (3rd edition 2012) by a driller holding a bore drillers' licence valid in New South Wales.
- The length of time that a core hole is maintained as an open hole should be minimised.

Landform rehabilitation (including final void management)

The Environmental Impact Statement report should include:

- Justification of the proposed final landform with regard to its impact on local and regional surface and groundwater systems;
- A detailed description of how the site would be progressively rehabilitated and integrated into the surrounding landscape;
- Outline of proposed construction and restoration of topography and surface drainage features if affected by the project;

- Detailed modelling of potential groundwater volume, flow and quality impacts of the presence of an inundated final void (where relevant) on identified receptors specifically considering those environmental systems that are likely to be groundwater dependent;
- An outline of the measures to be put in place to ensure that sufficient resources are available to implement the proposed rehabilitation; and
- The measures that would be established for the long-term protection of local and regional aquifer systems and for the ongoing management of the site following the cessation of the project.

End Attachment A

Regards

Wayne

Wayne Jones | Land Use Planning Coordinating Officer

Department of Primary Industries

Level 48, MLC Centre, 19 Martin Place Sydney NSW 2000

T:02 9338 6708 | E: wayne.jones@dpi.nsw.gov.au

This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.



Ref: DOC14/188319

Mr C Dickson
Environmental Consultant
R.W. Corkery & Co. Pty. Limited
PO Box 239
BROOKLYN NSW 2083

Dear Sir,

NYNGAN SCANDIUM PROJECT (SSD-5157)
Consultation request for updated Assessment Requirements

I refer to your email of 4 November 2014 requesting a review of the Director General's Requirements for an Environmental Impact Statement for the above development.

The Dubbo Office of NSW Trade & Investment, Crown Lands first reviewed the proposed development and its potential effect on adjoining Crown land in 2012. Due to the length of time of application a current revision has been conducted as per your request.

Based on the documentation provided, the following Crown lands have been identified within or adjoining the proposed development:

- Enclosure Permit 47886 over Crown Public Road
- Enclosure Permit 47799 over Crown Public Road
- Reserve 26457 for Travelling Stock

As previously advised, it is recommended that the proponent apply to close and purchase the Crown Public Roads associated with the proposal in order to avoid restrictions on access and development on these parcels.

Once the development proposal is finalised, Crown Lands will investigate Aboriginal Land Claim and Native Title issues relevant to the identified Crown Land parcels.

Previous discussions at the Planning Focus Meeting held at Nyngan on 21 February 2012 indicated that access to the development site may include the Travelling Stock Reserve adjacent to the Barrier Highway. If this is still the case there will be a requirement to formalise such access by way of easement or right of carriageway.

The proponent should also consider access to water supply via the Nyngan to Cobar pipeline and whether a formal access will be required on Crown Land.

If you have any further queries regarding the above please contact me direct on 02 6883 5410.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Elizabeth Burke'.

Elizabeth Burke
Group Leader, Property Management Services

12 November 2014



PCU057339

Mr Kane Winwood
A/Manager, Mining Projects
Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

3 December 2014

Central West Local Land Services input into Nyngan Scandium Project

Dear Mr Winwood

We have been contacted by Nick Warren, RW Corkery & Co Pty Limited regarding the above mentioned proposal.

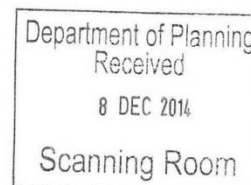
Thank you again for the opportunity to comment; as we have been advised by Mr. Warren that that the proposal remains unchanged, I confirm our advice of 1 March 2012 (attached).

Please also note our change to the Central West Local Land Services, and please address any future correspondence through our General Manager, PO Box 6082 Dubbo NSW 2830

Kind regards,

A handwritten signature in black ink, appearing to read 'Deborah Bate'.

Deborah Bate
Manager, Land Services



Deborah Bate
Manager, Land Services
2 Sherriff St
FORBES NSW 2871
Tel: 6851 9514 | deb.bate@lls.nsw.gov.au



**Catchment Management
Authority**
Central West

Central West Catchment Management Authority
30 Warne St, PO Box 227 WELLINGTON NSW 2820
T (02) 6840 7800 F (02) 6840 7801
www.cw.cma.nsw.gov.au

Contact: Jen Shearing
T (02) 6881 3411 M 0417 271 089
email: jen.shearing@cma.nsw.gov.au

File: CW00082

Mr Kane Winwood
A/Manager, Mining Projects
Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

1 March, 2012

Dear Mr Winwood,

Subject: Central West CMA input into DGR's for Nyngan Scandium Project (SSD-5157)

Thank you for the opportunity to provide input into the development of the Director General's Requirements (DGRs) for the environmental assessment of the proposed Nyngan Scandium Project in the Bogan Shire Council Local Government Area.

The Central West Catchment Management Authority (CMA) is a statutory authority under the *Catchment Management Authorities Act* (2003) and has the charter of working with the community in the sustainable management of natural resources. We acknowledge the balance required to support our biophysical and social assets across the catchment. These systems are intrinsically linked and it is therefore imperative that developments such as the proposed project address a number of key asset areas in the assessment. These areas include native vegetation, water sources, soil, cultural heritage and the local community. This response will provide greater detail in these areas.

Strategic Planning and Project Justification:

The requirements must include a strategic assessment of the need, scale, scope and location of the project in relation to the current and future demands for scandium and current supplies.

Native Vegetation:

It is noted that the proposed project area has largely been cleared previously. However there is a strip of vegetation on site that may have habitat value as a current wildlife corridor between stands of remnant native vegetation.

We request the assessment include identification of any Endangered Ecological Communities (EEC) vegetation and outline a biodiversity offset strategy to compensate for the destruction of any mature trees with habitat values such as hollows.

The assessment will require the identification of any threatened species in the proposed project area and a clear outline of how the risks to native fauna will be mitigated during site preparation and operation.

Water sources:

We acknowledge that in light of the topography of the area, the site is unlikely to have a defined water course flowing through it. However due to the nature of overland flow of surface water in the area, there are still assessment criteria to be considered.

We request an assessment of the surface water impacts of the proposed developments, particularly in terms of the surface water flow in the site and potential for contamination from leachate and soil/sedimentation risks.

We request an assessment of the risks of groundwater interference during establishment and operation and that assessment outlines mitigation measures to these risks.

The assessment should outline the potential water demands during operation and demonstrate the availability of adequate and secure water supplies for the life of the project.

If the area is determined as being on flood prone land, the assessment needs to include the likelihood of flood risks and how flood design has been considered in the operation.

Soil:

The assessment must outline the soil types covered in the proposed site and outline how the operation will mitigate risks in regard to the removal of the topsoil, storage of the overburden, replacement of the waste material and rehabilitation of the area upon completion of operation.

Cultural Heritage:

The assessment must include the impacts on Aboriginal cultural heritage. This includes information to demonstrate the impacts on Aboriginal heritage values, both archaeological and culturally in the broader sense.

The assessment must demonstrate the consultation processes with the local Aboriginal community and the Central West CMA prefers to see a proposed approach that undertakes a more detailed consultation with local people than simply the requirements outlined in the OEH Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation. The Central West CMA would favourably view the inclusion of a local Aboriginal community member in the site assessments for cultural heritage.

Social Impacts and Community Consultation:

The assessment must outline the social benefits to the local community as well as identifying the social impacts and mitigation strategies for the project.

Consultation on the project must include the Central West CMA, relevant agencies, the local Aboriginal community as well as the Local Aboriginal Land Council (LALC), relevant local interest community groups e.g. Landcare, Bogan Shire Council, and community stakeholders in the town of Nyngan.

The consultation process should outline the approach to distribute information about the project during the assessment, preparation, operation and rehabilitation phases. The assessment should also outline the methods of actively engaging stakeholders on issues that are of concern to them.

The assessment must clearly show the dates of consultation and copies of information distributed as part of the consultation process and describe the issues raised during the consultation and where the issues are addressed in the assessment.

Rehabilitation of the site:

The assessment must include a detailed outline of how the site will be rehabilitated at the end of the project's operational phase. This plan should have the objective of rehabilitating the site to a level that demonstrates an increase in the environmental values of sites when compared to the pre-operational site.

This rehabilitation strategy should strive to include the employment of local people throughout implementation.

The strategy also needs to outline ongoing environmental monitoring of the site, post rehabilitation to ensure minimal potential for degradation in the future.

We thank you once again for the opportunity to have input into the DGRs for this project and look forward to commenting further during the consultation and assessment phases.

If you have any questions in regard to this submission, please contact Jen Shearing on the details listed at the top of this letter.

Yours sincerely,



Carolyn Raine
General Manager,
Central West CMA

This page has intentionally been left blank