Our ref: DOC20/21892
Senders ref: SSD 10419

Ms Gen Lucas
Senior Environmental Assessment Officer
Minerals Quarry Assessments
Department Planning, Industry and Environment
gen.lucas@planning.nsw.gov.au

Dear Gen

New Cobar Complex Project – SSD 10419 – Request for input into SEARs

I refer to your email dated 9 January 2020 seeking input into the Department of Planning, Industry and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Assessment (EIS) for the New Cobar Complex Project (SSD 10419).

BCD received a subsequent request on 14 January 2020 from the proponent for a Biodiversity Development Assessment Report (BDAR) waiver. BCD is currently assessing this request. In the interim, SEARs for the proposed development are included in **Attachments A** and **B**. If BCD determines that a BDAR is not required for this proposed development, we will amend our SEARs advice accordingly.

BCD recommends the EIS needs to appropriately address the following:

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

Please note that for projects **not** defined as pending or interim planning applications under Part 7 or the *Biodiversity Conservation (Savings and Transitional) Regulation 2017* the Biodiversity Assessment Methodology (BAM) **must** be used to assess impacts to biodiversity in accordance with the *Biodiversity Conservation Act 2016* (BC Act).

If you have any questions about this advice, please do not hesitate to contact Michelle Howarth, Senior Conservation Planning Officer, via michelle.howarth@environment.nsw.gov.au or 6883 5335.

Yours sincerely

29 January 2020

Debbie Love
Acting Director North West
Biodiversity and Conservation Division

Attachment A - Environmental Assessment Requirements

Attachment B - Guidance Material

ATTACHMENT A

Standard Environmental Assessment Requirements

Biodiversity
1. Biodiversity impacts related to the proposed New Cobar Complex are to be assessed in accordance with Section 7.9 of the Biodiversity Conservation Act 2017 the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the *Biodiversity Conservation Act 2016* (s6.12), *Biodiversity Conservation Regulation 2017* (s6.8) and Biodiversity Assessment Method, unless DPIE and DPE determine that the proposed development is not likely to have any significant impacts on biodiversity values. 2. The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method. 3. The BDAR must include details of the measures proposed to address the offset obligation as follows; • The total number and classes of biodiversity credits required to be retired for the development/project; • The number and classes of like-for-like biodiversity credits proposed to be retired; • The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules; • Any proposal to fund a biodiversity conservation action; • Any proposal to conduct ecological rehabilitation (if a mining project); • Any proposal to make a payment to the Biodiversity Conservation Fund. If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits. 4. The BDAR must be submitted with all spatial data associated with the survey and assessment as per Appendix 11 of the BAM. 5. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*.
Aboriginal cultural heritage

6. The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and guided by the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (DECCW, 2011) and consultation with DPIE regional branch officers.
7. 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 ACHAR.
8. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to DPIE.
Historic heritage
9. The EIS must provide a heritage assessment including but not limited to an assessment of impacts to *State and local heritage* including conservation areas, natural heritage areas, places of Aboriginal heritage value, buildings, works, relics, gardens, landscapes, views, trees should be assessed. Where impacts to State or locally significant heritage items are identified, the assessment shall: a. outline the proposed mitigation and management measures (including measures to avoid significant impacts and an evaluation of the effectiveness of the mitigation measures) generally consistent with the NSW Heritage Manual (1996), b. be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria), c. include a statement of heritage impact for all heritage items (including significance assessment), d. consider impacts including, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, landscape and vistas, and architectural noise treatment (as relevant), and

e. where potential archaeological impacts have been identified develop an appropriate archaeological assessment methodology, including research design, to guide physical archaeological test excavations (terrestrial and maritime as relevant) and include the results of these test excavations.

Water and soils

10. 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 s4.2 of the Biodiversity Assessment Method).
    c. Wetlands as described in s4.2 of the Biodiversity Assessment Method.
    d. Groundwater.
    e. Groundwater dependent ecosystems.
    f. Proposed intake and discharge locations.

11. The EIS must describe background conditions for any water resource likely to be affected by the development, 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.
    e. Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions http://www.environment.nsw.gov.au/research-and-publications/publications-search/risk-based-framework-for-considering-waterway-health-outcomes-in-strategic-land-use-planning

12. The EIS must assess the impacts of the development on water quality, including:
    a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development 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.

c. Consistency with any relevant certified Coastal Management Program (or Coastal Zone Management Plan)

13. The EIS must assess the impact of the development 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 (e.g. 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

14. 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).

d. Flood hazard

15. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 5% Annual Exceedance Probability (AEP), 1% AEP, flood levels and the probable maximum flood, or an equivalent extreme event.

16. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:

a. Current flood behaviour for a range of design events as identified in 14 above. This includes the 0.5% and 0.2% AEP year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.

17. Modelling in the EIS must consider and document:
18. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies.
19. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood, or an equivalent extreme flood.
20. 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, hazard categories and hydraulic categories.
21. Relevant provisions of the NSW Floodplain Development Manual 2005.

22. The EIS must assess the impacts on the proposed development on flood behaviour, including:
    a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
    b. Consistency with Council floodplain risk management plans.
    c. Consistency with any Rural Floodplain Management Plans.
    d. Compatibility with the flood hazard of the land.
    e. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
    f. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
    g. 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.
    h. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the NSW SES and Council.
    i. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the NSW SES and Council.
    j. Emergency management, evacuation and access, and contingency measures for the development considering the full range or 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 NSW SES.

k. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

ATTACHMENT B

Guidance Material

Title	Web address
Relevant Legislation	
Biodiversity Conservation Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/63/full
Coastal Management Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/20/full
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
Marine Parks Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Wilderness Act 1987	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
Biodiversity	
Biodiversity Assessment Method (OEH, 2017)	https://biodiversity-ss.s3.amazonaws.com/Uploads/1494298079/Biodiversity-Assessment-Method-May-2017.pdf
Biodiversity Development Assessment Report	https://www.legislation.nsw.gov.au/#/view/act/2016/63/part6/div3/sec6.12
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	https://biodiversity-ss.s3.amazonaws.com/Uploads/1494298198/Serious-and-Irreversible-Impact-Guidance.PDF
Accreditation Scheme for Application of the Biodiversity Assessment Metho Order 2017	https://www.legislation.nsw.gov.au/regulations/2017-471.pdf
Biodiversity conservation actions	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-biodiversity-actions-170496.pdf

Title	Web address
Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	www.environment.nsw.gov.au/resources/bcact/ancillary-rules-reasonable-steps-170498.pdf
DPIE Threatened Species Website	www.environment.nsw.gov.au/threatenedspecies/
NSW BioNet (Atlas of NSW Wildlife)	www.bionet.nsw.gov.au/
NSW guide to surveying threatened plants (OEH 2016)	www.environment.nsw.gov.au/resources/threatenedspecies/160129-threatened-plants-survey-guide.pdf
DPIE threatened species survey and assessment guideline information	www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm
BioNet Vegetation Classification - NSW Plant Community Type (PCT) database	www.environment.nsw.gov.au/research/Vegetationinformationsystem.htm
DPIE Data Portal (access to online spatial data)	http://data.environment.nsw.gov.au/
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/protectedareas/developmntadjoiningdecc.htm
Heritage	
The Burra Charter (The Australia ICOMOS charter for places of cultural significance)	http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf
Statements of Heritage Impact 2002 (HO & DUAP)	http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf
NSW Heritage Manual (DUAP) (scroll through alphabetical list to 'N')	http://www.environment.nsw.gov.au/Heritage/publications/
Aboriginal Cultural Heritage	
Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)	http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf
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

Title	Web address
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
Water and Soils	
Acid sulphate soils	
Acid Sulfate Soils Planning Maps via Data.NSW	http://data.nsw.gov.au/data/
Acid Sulfate Soils Manual (Stone et al. 1998)	http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.environment.nsw.gov.au/resources/soils/acid-sulfate-soils-laboratory-methods-guidelines.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.environment.nsw.gov.au/floodplains/manual.htm
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans http://www.environment.nsw.gov.au/resources/coasts/130224CZMPGuide.pdf
NSW Climate Impact Profile	http://climatechange.environment.nsw.gov.au/
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation

Title	Web address
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1
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

From: deb.alterator@crownland.nsw.gov.au <deb.alterator@crownland.nsw.gov.au> **On Behalf Of** Lands Ministerials
Sent: Thursday, 23 January 2020 8:25 AM
To: Gen Lucas <Gen.Lucas@planning.nsw.gov.au>
Subject: Fwd: Major Projects – New Request for Advice - New Cobar Complex Project (SSD-10419) (Cobar Shire)

Good morning Gen

I went into the Major projects link and I could not find the New Cobar complex Project SSD-10419 Cobar Shire

DPIE - Crown Lands provide the following comments:

The department has identified that the majority of land impacted by the above project is freehold land held Peak Gold Mines Pty Ltd, and that limited additional impacts will occur on Crown land. Therefore the Department does not have further comments to add in regards to the above project.

If Crown land is involved in the proposal:

1. All Crown Land and Crown Roads within a Mining Lease must be subject to a Compensation Agreement issued under Section 265 of the Mining Act 1992, to be agreed and executed prior to any mining activity taking place and within 12 months of Project/ Modification Approval. The Compensation Agreement may include conditions requiring the Mining Lease Holder to purchase Crown land impacted on by mining activity.
2. All Crown Land and Crown Roads located within an Exploration Licence, where subject to exploration activity, must be subject to an Access Arrangement issued under Section 141 of the Mining Act 1992, to be agreed and executed prior to any exploration activity taking place.

Thank you and sorry about being a little late

Regards

Deb

Lands Stakeholder Relations

Team telephone numbers: Rebecca Johnson, Principal Project Officer, 4920 5040; Kirstyn Goulding, Administration Officer - Customer Liaison, 4920 5058; Kim Fitzpatrick, Senior Project Officer, 4920 5015, Deb Alterator, Project Support Officer 4920 5172

Crown Lands | Department of Planning, Industry and Environment
E lands.ministerials@industry.nsw.gov.au
Level 4, 437 Hunter Street Newcastle NSW 2295
www.dpie.nsw.gov.au

OUT20/291

Ms Gen Lucas
Planning and Assessment Group
NSW Department of Planning, Industry and Environment

Gen.Lucas@planning.nsw.gov.au

Dear Ms Lucas

New Cobar Complex Project (SSD 10419)
Comment on the Secretary's Environmental Assessment Requirements (SEARs)

I refer to your email of 9 January 2020 to the Department of Planning, Industry and Environment (DPIE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

The following advice for you to consider is from DPIE Water and NRAR. Please note the Department of Primary Industries (DPI) and Crown Lands now provide a separate response.

DPIE – Water and NRAR

The SEARS should include:

- The identification of an adequate and secure water supply for the life of the project. This includes confirmation that water can be sourced from an appropriately authorised and reliable supply. This is also to include an assessment of the current market depth where water entitlement is required to be purchased.
- A detailed and consolidated site water balance.
- 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.
- Proposed surface and groundwater monitoring activities and methodologies.
- Consideration of relevant legislation, policies and guidelines, including the NSW Aquifer Interference Policy (2012), the Guidelines for Controlled Activities on Waterfront Land (2018) and the relevant Water Sharing Plans (available at https://www.industry.nsw.gov.au/water).

Any further referrals to DPIE – NRAR & Water can be sent by email to: landuse.enquiries@dpi.nsw.gov.au.

Any further referrals to DPI & Crown Lands can be sent by email to: dpi.cabinet@dpi.nsw.gov.au & lands.ministerials@industry.nsw.gov.au respectively.

Yours sincerely

Alistair Drew
Acting Senior Project Officer, Assessments
Water – Strategic Relations
22 January 2020

DOC20/28495

DIVISION OF RESOURCES & GEOSCIENCE ADVICE RESPONSE

Gen Lucas
Energy & Resource Assessments - Planning & Assessment Division
Department of Planning, Industry and Environment
GPO Box 39
SYDNEY NSW 2001

Gen.Lucas@planning.nsw.gov.au

Dear Gen

Project: New Cobar Complex Project
Stage: Secretary's Environmental Assessment Requirements
Development Application: SSD-10419

I refer to your request dated 9 January 2020 inviting the Division of Resources & Geoscience (the Division) to provide comments on the New Cobar Complex Project (the Project) submitted by Peak Gold Mines Pty Ltd (the Proponent).

The relevant units internal to the Division have been consulted where required in generating this advice. Further, the Department of Planning, Industry and Environment - Planning & Assessment Division and the Proponent should be aware that matters pertaining to rehabilitation, environmental impacts of final landform design, subsidence, subsidence management, mine operator and safety are not assessed by the Division and advice should be sought from the Resources Regulator.

The Division has reviewed the information supplied in relation to the abovementioned Project. The Division requires that the Project's Environmental Impact Statement (EIS) refers to and includes all requirements set out in the Division of Resources and Geoscience Secretary's Environmental Assessment Requirements for New Cobar Complex Project provided in **Attachment 1** (DOC 20/28487).

For further enquiries and advice in relation to this matter, please contact Adam W. Banister, Senior Advisor, Assessment Coordination Unit – Resource Assessments on 02 4063 6534 or assessment.coordination@planning.nsw.gov.au.

Yours sincerely

Scott Anson
Manager Assessment Coordination
Resource Operations
Division of Resources & Geoscience
22 January 2020

for
Stephen Wills
Executive Director Resource Operations
Division of Resources & Geoscience

Division of Resources & Geoscience

Secretary's Environmental Assessment Requirements

for proposed significant state development applications requiring consultation under Schedule 2 Part 2(3) of the Environmental Planning & Assessment Regulation 2000

Project	New Cobar Complex Project
Reference Number:	DOC20/28487
Issue date of SEARs:	22 January 2020
Type of Approval:	Mining operation - **underground**
Proponent:	Peak Gold Mines Pty Ltd
DA Number:	LDA98/99:08 (New Cobar South Open Cut), 2004/LDA-3 (New Cobar Underground)
LGA:	Cobar Shire Council
Minerals:	Gold, Copper, Lead, Zinc and Silver

In preparing the environmental assessment requirements with respect to an application for State significant development, the Planning Secretary must consult relevant public authorities and have regard to the need for the requirements to assess any key issues raised by those public authorities.

This development may require an approval under the *Mining Act 1992* to be issued by the Division of Resources & Geoscience. The proponent must apply to the Division for the relevant approval (mining lease) during the development assessment process, or once consent has been granted, and before the commencement of any mining or ancillary activity.

A development application under the *Environmental Planning and Assessment Act 1979* must be approved before a mining lease can be granted. A mining lease will only be granted for activities specified in the development consent.

Environmental Impact Statement (EIS) requirements for mining

1. Project description

The Proponent is to supply a comprehensive overview and description of all aspects of the Project, including:

(a) Location map showing the project area, mining titles, nearest town/s, major roads etc.

(b) Status of all titles (including mining and exploration), and development consents in place and/or timeline to obtain necessary approvals.

(c) Any relationships between the resource and existing mines or other infrastructure.

(d) Nature of operation (e.g. underground, open cut) and ore mineral/s to be extracted.

2. Geology

The Proponent is to supply a summary of the geological components of the mineral resource, including:

(a) A brief description of the regional geology including details the ore and gangue mineralogy for each discrete ore body/lens (Great Cobar, Jubilee, Gladstone etc.).
   - Describe any differences from the current operating deposits, including factors that may impact processing and production rates, for example gold and base-metal rich zones, margins to the ore zones, rock density including magnetite abundance.

(b) A summary of the stratigraphic unit or units within which the resource is located and relationships or conflicts between mineralisation controls (lithology, structure, rheology, local/regional faults).

(c) A description of the physical characteristics and dimensions of the mineral resource, with representative plans and cross-sections including each ore body/lens (if appropriate), drill holes and the area proposed for extraction. Drill logs should be included or appended.

(d) Details of the ore and waste rock, including mineralogy and deleterious elements.

(e) Provide evidence of geological and grade (or quality) continuity of mineralisation in the deposit including:
   - contaminants and/or ore specifications
   - model grade domains
   - independent audit of the model
   - details of assumptions that have been used for converting resources to reserves.

3. Mineral Resources and Ore Reserves

The Proponent is to supply the most recent resource and reserve statement. The Proponent should also provide a summary of the mineral resource classifications and justification for each category.

(a) Include a full and updated resource/reserve statement that has been prepared in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves of the Joint Ore Reserves Committee (the JORC code) to a minimum of Indicated Resource level of confidence. It is preferred that a significant amount of the resources are estimated to at least indicated or equivalent high-level of confidence.

The Division understands that it may not be feasible to convert all Inferred Resources to Indicated (or higher) level of confidence. However, the Proponent needs to demonstrate that there are sufficient resources to support the majority of the initial life of mine production schedule. Any contribution from Inferred Resources to the schedule needs to be justified.

4. Resource extraction

The Proponent is to supply evidence that the resource extraction is sustainable and maximised. Such evidence will include:

(a) A summary of resources that may be sterilised or excluded, with justification.

(b) A description of how the proposed mine plan and extraction method maximises resource recovery. Specify why the mine design has been chosen (noting other resource, design, commercial/economic constraints) and why this is the best outcome; detailing the options considered in arriving at the final landform design.

(c) A summary of the processing and recovery methods including equipment and mining loss and dilution.

(d) List all economic, environmental, geological, geotechnical and other constraints to the recovery of the resource/reserve impacting the Project.

5. Geotechnical design assessment

The Proponent is to supply a full geotechnical assessment that supports mining methods and mine design that includes, but is not limited to:

(a) Consideration of local geological structure and its influence on rock stability.

(b) An analysis of ground behaviour and ground management strategies in deep underground mining.

(c) Description of ground support system design for static and dynamic conditions that includes performance monitoring methods.

(d) Evaluation of stress management and quality control and support elements during mining operations.

6. Subsidence

To justify proposed underground mining projects, the Proponent must demonstrate the feasibility of:

(a) The proposed strategies to manage subsidence risks to surface or sub-surface features that are considered to have significant economic, social, cultural or environmental value.

7. Life of mine 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:

(a) 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.

(b) In terms of text, plans or charts, the EIS must clearly show the proposed extent and sequence of the development.

(c) Production/Life of mine schedule tabulated for each ore body/lens. The Proponent must address likely adjustments to processing methods and/or processing rate, for example the expected recoveries via gravity, flotation and cyanidation should be outlined.

8. Project economics and target market

The Proponent is to supply an assessment of project economics including:

(a) Price forecasts by product type used by the Proponent. The Division requires these forecasts to analyse the Proponent's calculations of royalty value and export value.

(b) Product tonnages split into market segment. These estimates are necessary to arrive at total revenue value and royalty calculations. Include justification for market segment based on quality parameters.

(c) CAPEX & OPEX necessary for the Project broken down into the various sub-categories and equipment type. Include any changes that the Project will have on existing mine infrastructure and broader ex-mine infrastructure.

(d) Estimates of employment generation broken down into direct, indirect, ongoing, construction and contract workers.

(e) Total royalty generated over the life of the Project.

(f) Relationship and interaction with other mines. Detailing the Project impacts on the existing mine and surrounding mines.

(g) Details on derivation/analysis of Run-of-Mine (ROM) production rate; to answer why this the optimum rate.

(h) Provide project funding source and assurance of ongoing project and operations funding from the proponent or parent. The Division is seeking the proponent's commitment to advancing this project.

The Division understands that an estimate of product split into individual market segments is difficult to estimate at a point in time and is dependent on market conditions as the life of the Project progresses. The Division requires the Proponent to provide its best estimate of their market mix at the initial stages of the Project.

The above information should be summarised in the EIS, with full documentation appended. If deemed commercial-in-confidence, the resource summary included in the EIS must commit to providing the Division with full resource documentation via the Division's Resource and Economic Assessment process.

Additional matters for attention

Resource and Economic Assessment

The Resource and Economic Assessment (REA) is designed to review the resource/reserve estimates stated in the submitted EIS and supporting material. The REA also examines whether the project will deliver significant social and economic benefits to NSW from the efficient development of the resource, by optimising resource recovery and mine design and minimising waste. It also aims to ensure an appropriate return to the state from developing the resource. This process commences two months prior to lodgement of the EIS, the proponent to contact the Assessment Coordination Unit.

Biodiversity offsets

The Division requests that the Proponent consider potential resource sterilisation in relation to any proposed biodiversity offsets areas. Biodiversity offsets have the potential to preclude access for future resource discovery and extraction and could also potentially permanently sterilise access to mineral resources.

The EIS must therefore clearly illustrate the location (including offsite locations) of any biodiversity offsets being considered for the project and their spatial relationship to known and potential mineral and construction material resources and existing mining & exploration titles.

The Division requests consultation with both the Geological Survey of NSW – Land Use Assessment team and holders of existing mining and exploration authorities affected by planned biodiversity offsets. Evidence of consultation should be included in the EIS.

Mining Titles

As gold, silver, copper, zinc and lead are prescribed minerals under the *Mining Act 1992*, the Proponent is required to hold an appropriate mining title(s) from the Division in order to mine the mineral.

For ancillary mining activities as, in so far as the ancillary activities are to be carried out in connection with and in the immediate vicinity of a mining lease in respect of a mineral, the proponent is required to hold a Mining Lease for ancillary mining activities or an 'off title' designated ancillary mining activity as defined by clause 7 of the Mining Regulation 2016 (the Regulation).

The EIS for a project should clearly identify existing mineral titles, mineral title applications and the final proposed mining lease area(s) for the project site and areas surrounding the proposed project area and address the environmental impacts and management measures for the mining and mining purpose activities as licensed under the *Mining Act 1992*.

Where a proposal includes Crown Land the proponent is required to comply with the Commonwealth *Native Title Act 1993* and undertake the right to negotiate process for the Crown Lands within the current exploration licence area(s) if proof of extinguishment cannot be determined.

A development application under the *Environmental Planning and Assessment Act 1979* must be approved before a mining lease can be granted. A mining lease will only be granted for activities specified in the development consent.

The Division notes that this Project, as it currently stands, is located within the existing operations area of Consolidated Mining Lease 6 (Act 1992), Mining Lease 1483 (Act 1992) and Mining Lease Application 541 (Act 1992). Based on current title information the Division advises that the Proponent holds or has commenced the process to secure the appropriate titles as required for mining operations as relating to the project.

Position	Approval	Date
Approving Officer: Adam W. Banister Senior Advisor Assessment Coordination Resource Operations (02) 4063 6534	Approved in CM9	22 January 2020
Endorsing Officer: Scott Anson Manager Assessment Coordination Resource Operations (02) 4063 6972	Approved in CM9	22 January 2020

NSW EPA

Our reference: DOC20/17066-2; SF19/8023
Contact: Brooke Emerton – 02 6333 3800

Planning Assessments Group
Department of Planning, Industry and Environment
320 Pitt Street
SYDNEY NSW 2000

Attention: Gen Lucas

23 January 2020

Dear Ms Lucas

Input to Secretary's Environmental Assessment Requirements - New Cobar Complex (SSD-10419)

I refer to the Planning Portal request for the Environment Protection Authority (EPA) to provide input to the Secretary's Environmental Assessment Requirements for the Environmental Impact Statement (EIS) for the proposed New Cobar Complex Project (SSD-10419). I apologise for the delay in providing this response.

The EPA has considered the details of the proposal as provided on the portal and has identified the information it requires to adequately assess the project in **Attachment A**. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

1. Noise - Proximity to sensitive receivers and impacts of any sources associated with the project
2. Air - Dust generation and management of potential impacts on adjacent rural residences during the construction and operational phases of the project.
3. Water - Water management systems and the implementation of adequate erosion and sediment controls to control runoff from the quarry.

In carrying out the assessment, the proponent should refer to the relevant guidelines identified in **Attachment A** and any relevant industry codes of practice and best practice management guidelines.

The applicant currently holds Environment Protection Licence 3596 ("the Licence") for *mining for minerals*. If the project is approved, the applicant will need to separately apply to the EPA to vary the Licence. Any commitments made in the EIS may be adopted as conditions on the Licence.

To assist the EPA in assessing the EIS it is requested that it follows the format of the Department's EIS guidelines and addresses the EPA's specific requirements outlined in the attachment. If adequate information is not provided in the EIS then delays in the development assessment process may occur.

If you have any questions, or wish to discuss this matter further please contact Brooke Emerton at the EPA's Central West Region on 02 6333 3800 or by email to central.west@epa.nsw.gov.au.

Yours sincerely

DUNCAN McGREGOR
Acting Unit Head Central West Region
Environment Protection Authority

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NSW EPA

ATTACHMENT A: Environmental Assessment Requirements

New Cobar Complex Project (SSD-10419)

1. Environmental impacts of the project

1.1. The EIS must address the requirements of Section 45 of the *Protection of the Environment Operations Act 1997* (POEO Act) by determining the extent of each impact and providing enough information to enable the EPA to determine appropriate conditions, limits and monitoring requirements for the Licence.

1.2.. Impacts related to the following environmental issues need to be assessed, quantified and reported on:

- **Air quality** including dust generation from the operation on the surrounding landscape and community;
- **Noise and vibration impacts** associated with blasting, and operational noise particularly fixed infrastructure, machinery and plant movements;
- **Waste** including hazardous materials and radiation. Consideration needs to be given to disposal options for general waste, sanitary waste as well as hazardous materials and radiation, where relevant.
- **Water quality** including site water balance and sediment and erosion controls during construction and operation phases.

1.3. The EIS should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines mentioned.

2. Licensing requirements

2.1. Should project approval be granted, the applicant will need to make an application to vary the Licence prior to undertaking any on site works. Additional information is available through the *EPA Guide to Licensing* document (www.epa.nsw.gov.au/licensing/licenceguide.htm).

SPECIFIC ISSUES

3 Air quality

3.1. The EIS must demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations Act 1997* and the *Protection of the Environment Operations (Clean Air) Regulation 2010.*

3.2. The EIS must include an air quality impact assessment (AQIA).

3.3. The AQIA must be carried out in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (2016) https://www.epa.nsw.gov.au/your-environment/air/industrial-emissions/modelling-assessing-air-emissions.

3.4. The EA must detail emission control techniques/practices that will be employed at the site and identify how the proposed control techniques/practices will meet the requirements of the POEO Act, *POEO (Clean Air) Regulation* and associated air quality limits or guideline criteria.

4. Noise and Vibration

4.1. Construction noise associated with the proposed development should be assessed using the *Interim Construction Noise Guideline* (DECC 2009), available at: https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/interim-construction-noise-guideline

4.2. Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in *Assessing Vibration: a technical guideline* (DEC 2006), available at: https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/assessing-vibration

4.3. If blasting is required for any reason during the construction or operational stage of the proposed development, blast impacts should be demonstrated to be capable of complying with the guidelines contained in *Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration* (ANZEC 1990), available at: http://www.epa.nsw.gov.au/noise/blasting.htm.

4.4. Operational noise from all industrial activities, including private haul roads and private railway lines, should be assessed using the *Noise Policy for Industry* (EPA 2017), available at: https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)

4.5. Noise on public roads from increased road traffic generated by land use developments should be assessed using the guidelines contained in the *NSW Road Noise Policy* and associated application notes (EPA 2011), available at: https://www.epa.nsw.gov.au/your-environment/noise/transport-noise.

5 Waste, chemicals and hazardous materials

5.1. The EIS must assess all aspects of waste generation, management and disposal associated with the proposed development.

5.2. The EIS must demonstrate compliance with all regulatory requirements outlined in the POEO Act and associated waste regulations.

5.3. The EIS must identify, characterise and classify the following in accordance with the EPA's *Waste Classification Guidelines (2014)* and associated addendums:

a. all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste;

b. all waste that is proposed to be disposed of onsite or to an offsite location, including proposed quantities of the waste and the disposal locations for the waste. This includes waste that is intended for re-use or recycling.

Note: The EPA's *Waste Classification Guidelines (2014)* and associated addendums are available at: https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste

5.4. The EIS must demonstrate that potentially acid-forming waste will be managed in accordance with best practise to protect surface water and groundwater.

5.5. The EIS must outline contingency plans for any event that may result in environmental harm, such as excessive stockpiling of material, or dirty water volumes exceeding the storage capacity available on-site.

5.6. The EIS must demonstrate that appropriate spill containment will be provided for storage, filling and loading of all fuels and other chemicals to be used on site, in accordance with the relevant Australian Standard.

6 Water

6.1. The EIS must demonstrate how the proposed development will meet the requirements of section 120 of the POEO Act (prohibition of pollution of waters).

6.2. The EIS must include a water balance for the development including water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

NSW EPA

6.3. If the proposed development intends to discharge waters to the environment, the EIS must demonstrate how the discharge(s) will be managed in terms of water quantity, quality and frequency of discharge and include an impact assessment of the discharge on the receiving environment. This should include:

a. Description of the proposal including position of any intakes and discharges, volumes, water quality and frequency of all water discharges.

b. Description of the receiving waters including upstream and downstream groundwater and surface water quality, as well as any other water users.

c. Demonstration that all practical options to avoid discharge have been implemented and environmental impact minimised where discharge is necessary.

6.4. The EIS must refer to Water Quality Objectives for the receiving waters and indicators and associated trigger values or criteria for the identified environmental values of the receiving environment. This information should be sourced from the:

a. NSW Water Quality and River Flow Objectives (2006), available at:

http://www.environment.nsw.gov.au/ieo/index.htm

b. *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (2018) for all uses except primary industries, available at: https://www.waterquality.gov.au/anz-guidelines

c. ANZECC & ARMCANZ (2000) *Guidelines for Fresh and Marine Water Quality* for primary industries users, available at: https://www.waterquality.gov.au/anz-guidelines/resources/previous-guidelines/anzecc-armcanz-2000.

6.5. Assess impacts against the relevant ambient water quality objectives. Demonstrate how the proposal will be designed and operated to:

a. protect the Water Quality Objectives for receiving waters where they are currently achieved; and

b. contribute towards achievement of the Water Quality Objectives over time where they are not currently being achieved.

6.6. The EA must describe how stormwater will be managed in all phases of the project, including details of how stormwater and runoff will be managed to minimise pollution. Information should include measures to be implemented to minimise erosion, leachate and sediment mobilisation at the site. The EA should consider the guidelines *Managing urban stormwater: soils and construction,* vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC, 2008).

6.7. The EA must describe any water quality monitoring programs to be carried out at the project site. Water quality monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales* (2004) which is available at: https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/water/approvedmethods-water.pdf.

Our ref: MAAG0005589
LETT0003487

Senior Environmental Assessment Officer
Resource Assessments
Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2001
Attn: Gen Lucas

Dear Gen Lucas

New Cobar Underground Complex (SSD-10419): Request for Resources Regulator Secretary's Environmental Assessment Requirements

Dear Gen Lucas,

I refer to correspondence dated 9 January 2020 inviting the Resources Regulator to provide Secretary's Environmental Assessment Requirements (SEARs) for the New Cobar Underground Complex SSD-10419.

The Mining Act Inspectorate within the Resources Regulator has responsibility for providing strategic advice for environmental issues pertaining to the proposed development in so far as they relate to or affect rehabilitation.

Mine Safety Operations within the Resources Regulator is responsible for ensuring mine operators manage the risk to worker health and safety though compliance with the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and the subordinate mining legislation. In particular the effective management of risk associated with the principal hazards as specified in the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*.

Development Details and Assessment

The proposed New Cobar Underground Complex is located approximately 7 kilometres southwest of Cobar, NSW.

The New Cobar Underground Complex Project proposes to increase the life-span of operations approved by Cobar Shire Council and consolidate mining operations under a single SSD project approval.

The development application proposes to:

- Extension of underground operations to target the Gladstone and Great Cobar deposits;
- Increase from 25 to 50 truck movements per day on the Kidman Way (B87); Construction of 22Kv poweline easement, transformer and switch room;
- Installation of ventilation fans to accommodate mining up to 800m/bgl; and
- Employment of an additional 10 employees for underground operations.

Compliance Operations Response

The Mining Act Inspectorate has reviewed the application and recommends that the standard mining development rehabilitation SEARs be applied to this development (see attached).

Guidance note
In addition to the Department's standard SEARS, the following additional condition(s) are recommended.

Mine Safety Operations Response

Mine Safety Operations have not identified any risk that would require comment in relation to this matter.

If you require additional information, please contact the Resources Regulator on 1300 814 609 (Option 2, then 5), or via email at nswresourcesregulator@service-now.com.

Yours sincerely,

Benjamin Gazi
Manager Environmental Operations
Mining Act Inspectorate
Resources Regulator
NSW Department of Planning, Industry & Environment

15 January 2020

ADVICE RESPONSE
Mining Development Rehabilitation Standard SEARs

Post-mining land use

(a) Identification and assessment of post-mining land use options;
(b) Identification and justification of the preferred post-mining land use outcome(s), including a discussion of how the final land use(s) are aligned with relevant local and regional strategic land use objectives;
(c) Identification of how the rehabilitation of the project will relate to the rehabilitation strategies of neighbouring mines within the region, with a particular emphasis on the coordination of rehabilitation activities along common boundary areas;

Rehabilitation objectives and domains

(d) Inclusion of a set of project rehabilitation objectives and completion criteria that clearly define the outcomes required to achieve the post-mining land use for each domain. Completion criteria should be specific, measurable, achievable, realistic and time-bound. If necessary, objective criteria may be presented as ranges;

Rehabilitation Methodology

(e) Details regarding the rehabilitation methods for disturbed areas and expected time frames for each stage of the rehabilitation process;
(f) Mine layout and scheduling, including maximising opportunities for progressive final rehabilitation. The final rehabilitation schedule should be mapped against key production milestones (i.e. ROM tonnes) of the mine layout sequence before being translated to indicative timeframes throughout the mine life. The mine plan should maximise opportunities for progressive rehabilitation;

Conceptual Final Landform Design

(g) Inclusion of a drawing at an appropriate scale identifying key attributes of the final landform, including final landform contours and the location of the proposed final land use(s);

Monitoring and Research

(h) Outlining the monitoring programs that will be implemented to assess how rehabilitation is trending towards the nominated land use objectives and completion criteria;
(i) Details of the process for triggering intervention and adaptive management measures to address potential adverse results as well as continuously improve rehabilitation practices;
(j) Outlining any proposed rehabilitation research programs and trials, including their objectives. This should include details of how the outcomes of research are considered as part of the ongoing review and improvement of rehabilitation practices;

Post-closure maintenance

(k) Description of how post-rehabilitation areas will be actively managed and maintained in accordance with the intended land use(s) in order to demonstrate progress towards meeting the rehabilitation objectives and completion criteria in a timely manner;

Barriers or limitations to effective rehabilitation

(l) Identification and description of those aspects of the site or operations that may present barriers or limitations to effective rehabilitation, including:

i. evaluation of the likely effectiveness of the proposed rehabilitation techniques against the rehabilitation objectives and completion criteria;
ii. an assessment and life of mine management strategy of the potential for geochemical constraints to rehabilitation (e.g. acid rock drainage, spontaneous combustion etc.), particularly associated with the management of overburden/interburden and reject material;
iii. the processes that will be implemented throughout the mine life to identify and appropriately manage geochemical risks that may affect the ability to achieve sustainable rehabilitation outcomes;
iv. a life of mine tailings management strategy, which details measures to be implemented to avoid the exposure of tailings material that may cause environmental risk, as well as promote geotechnical stability of the rehabilitated landform; and
v. existing and surrounding landforms (showing contours and slopes) and how similar characteristics can be incorporated into the post-mining final landform design. This should include an evaluation of how key geomorphological characteristics evident in stable landforms within the natural landscape can be adapted to the materials and other constraints associated with the site.

(n) Where the mine includes underground workings:

i. determine (with reference to the groundwater assessment) the likelihood and associated impacts of groundwater accumulating and subsequently discharging (e.g. acid or neutral mine drainage) from the underground workings post cessation of mining; and
ii. consideration of the likely controls required to either prevent or mitigate against these risks as part of the closure plan for the site.

(o) Consideration of the controls likely to be required to either prevent or mitigate against rehabilitation risks as part of the closure plan for the site;
(p) Where an ecological land use is proposed, demonstrate how the revegetation strategy (e.g. seed mix, habitat features, corridor width etc.) has been developed in consideration of the target vegetation community(s);
(q) Where the intended land use is agriculture, demonstrate that the landscape, vegetation and soil will be returned to a condition capable of supporting this; and
(r) Consider any relevant government policies[1].

[1] The following government policies should be considered when addressing rehabilitation issues:
• Mine Rehabilitation (Leading Practice Sustainable Development Program for the Mining Industry, 2006)
• Mine Closure and Completion (Leading Practice Sustainable Development Program for the Mining Industry, 2006)
• Strategic Framework for Mine Closure (ANZMEC-MCA, 2000)