



DOC21/626629-3

Department of Planning, Industry and Environment  
Returned via Major Projects Portal

Attention: Mr Jack Turner

8 August 2021

Dear Mr Turner

**Secretary's Environmental Assessment Requirements  
Nymagee Federation Gold Project (SSD-24319456)**

I refer to the request from the Department of Planning, Industry and Environment (DPIE) to the Environment Protection Authority (EPA) dated July 2021 seeking the EPA's comments on the Draft Secretary's Environmental Assessment Requirements (SEARs) to assist with the preparation of an Environmental Assessment for the Nymagee Federation Project (SSD-24319456).

Based on the information provided, the EPA understands that the Proponent is seeking approval for:

- underground mining of the Federation gold-silver-copper-lead-zinc mineral deposit,
- extraction and processing of up to 6.95 million tonnes of ore over a period of up to 14 years,
- establishment of ancillary surface infrastructure to support mining activities,
- upgrades to the existing Hera Mine to facilitate mining and processing of ore from the Federation deposit,
- establishment of a services corridor between the Federation Site and Hera Mine,
- ongoing operation of the Hera mine, and
- intention to surrender of the Hera Mine development consent (MP10\_0191) for consolidation with the Federation Project.

The Proponent would need to apply separately to the EPA to vary the existing environment protection licence for the Hera Mine to permit and incorporate expanded operations or apply for a new environment protection licence for the Federation Mine should the Proposal be approved.

The EPA's key areas of concern for the Proposal are summarised below:

1. Surface water management (including process water use and reuse and wastewater management),
2. Groundwater impacts,
3. Waste rock classification and management, and
4. Cyanide storage, use and tailings management.

The EPA has reviewed the Draft SEARs provided by DPIE and is of the opinion that they generally cover most information requirements required for the EPA to properly assess the Proposal. I have provided at **Attachment A** suggested additions to the SEARs under relevant headings and recommend their inclusion in the final SEARs.

Phone 131 555

TTY 133 677

PO Box 2111

L1, 48-52 Wingewarra Street [info@epa.nsw.gov.au](mailto:info@epa.nsw.gov.au)

Phone +61 2 6883 5333

ABN 43 692 285 758

DUBBO NSW 2830

[www.epa.nsw.gov.au](http://www.epa.nsw.gov.au)

Australia

Australia

The EPA has also provided the appropriate guidance material to be considered (but not limited too) at **Attachment B**.

It is important that all assumptions and conclusions made in the environmental assessment are supported by adequate data. The proponent should also be aware that any commitments made in the environmental assessment may be formalised as approval conditions and/or environment protection licence conditions.

If you have any questions regarding this matter, please contact Emma Jones on (02) 6883 5909 or by e-mail to [central.west@epa.nsw.gov.au](mailto:central.west@epa.nsw.gov.au).

Yours sincerely



**MATTHEW CORRADIN**  
**Unit Head**  
**Regulatory Operations**

**Encl:** **Attachment A** – EPA's Recommended Additional SEARs  
**Attachment B** – Relevant Guidance Material

## **ATTACHMENT A – EPA’s Recommended Secretary’s Environmental Assessment Requirements – Federation Project (SSD-24319456)**

### **How to use these requirements**

The EPA requirements have been structured in accordance with relevant guidelines, as follows. It is suggested that the EIS follow the same structure:

- A. Executive summary
- B. The proposal
- C. The location
- D. List of required approvals and licences
- E. Identification and prioritisation of all issues
- F. The environmental issues
- G. The mitigation measures
- H. Justification for the proposal and conclusion

The EIS should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines/standards at **Attachment B**.

**Note:** The sections below only relate to those SEARs that the EPA is recommending in addition to the Draft SEARs already provided.

## **The proposal**

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Please include the following requirements when detailing the Proposal:

- The type and nature of the processes to be implemented to carry out the activities including the plant and equipment proposed for use and the types and amounts of fuels, chemicals and other products, including cyanide, required and proposed methods for their transportation, storage, use and relevant emergency management provisions, including relevant process flow diagrams, and
- The by-products produced and/or wastes produced, including the fate of such products.

## **List of approvals and licences**

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Based on the Proponents Scoping Report, the EPA understands that the Proposal will operate as a consolidated project incorporating both the Hera and Federation Mines and relevant associated infrastructure. While not necessarily a SEARs requirement, the EPA would like the Proponent to clearly articulate whether the intention is for the Proposal to operate under environment protection licence 20179 or whether a new environment protection licence will be applied for, should approval be granted.

## **The environmental issues**

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Please include the following requirements when assessing the environmental issues:

### **Noise**

- Propose representative noise monitoring locations for determining compliance with applicable noise goals and where relevant noise goals would be set as representative limits.

### **Air**

- Identify strategies to minimise point and/or fugitive and/or odour emissions/impacts (with proposed timing), including monitoring, in line with relevant guidance/standards.

### **Land**

- Identify if the soils in the area of the Proposal are contaminated or are acid forming (i.e. acid sulphate soils) and if so, identify best practice mitigation measures (pollution control) and strategies or remedial and/or disposal actions that will be required/undertaken if applicable in accordance with relevant guidance/standards.

### **Waste**

- Discussion on how the Proposal will comply with the EPA's Sodium Cyanide Policy – Limits for gold mine tailings storage facilities (EPA, 2012), and
- Identify onsite sewerage system construction/upgrade, implementation, performance and management measures including a supporting comment on how the system will service all sewage generated during the construction and operational periods.

## ATTACHMENT B – EPA's Guidance Material (not exhaustive)

<u>Legislation</u>	
<i>Environmental Planning and Assessment Act 1979</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1979-203">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1979-203</a>
Environmental Planning and Assessment Regulation 2000	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/sl-2000-0557">https://www.legislation.nsw.gov.au/view/html/inforce/current/sl-2000-0557</a>
<i>Protection of the Environment Operations Act 1997</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1997-156">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1997-156</a>
Protection of the Environment Operations (Noise Control) Regulation 2017	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/sl-2017-0449">https://www.legislation.nsw.gov.au/view/html/inforce/current/sl-2017-0449</a>
Protection of the Environment Operations (Clean Air) Regulation 2010	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/sl-2010-0428">https://www.legislation.nsw.gov.au/view/html/inforce/current/sl-2010-0428</a>
Protection of the Environment Operations (Waste) Regulation 2014	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/sl-2014-0666">https://www.legislation.nsw.gov.au/view/html/inforce/current/sl-2014-0666</a>
<i>Waste Avoidance and Resource Recovery Act 2001</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-2001-058">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-2001-058</a>
<i>Contaminated Land Management Act 1997</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1997-140">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1997-140</a>
<u>Licensing</u>	
Licensing Requirements	<a href="https://www.epa.nsw.gov.au/licensing-and-regulation/licensing">https://www.epa.nsw.gov.au/licensing-and-regulation/licensing</a>
<u>Noise/Vibration</u>	
Interim Construction Noise Guideline (DECC, 2009)	<a href="https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/construction-noise">https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/construction-noise</a>
Assessing Vibration: a technical guideline (DEC, 2006)	<a href="https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/assessing-vibration">https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/assessing-vibration</a>
Noise Policy for Industry (2017) and Implementation and Transitional arrangements for the Noise Policy for Industry (2017)	<a href="https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)">https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)</a>
NSW Road Noise Policy (DECCW, 2011)	<a href="https://www.epa.nsw.gov.au/your-environment/noise/transport-noise">https://www.epa.nsw.gov.au/your-environment/noise/transport-noise</a>
<u>Air/Odour</u>	
Approved methods for the Modelling and Assessment of Air Pollutants in NSW (2016)	<a href="https://www.epa.nsw.gov.au/your-environment/air/industrial-emissions/modelling-assessing-air-emissions">https://www.epa.nsw.gov.au/your-environment/air/industrial-emissions/modelling-assessing-air-emissions</a>
Approved methods for the Sampling and Analysis of Air Pollutants in NSW (2007)	<a href="https://www.epa.nsw.gov.au/your-environment/air/industrial-emissions/modelling-assessing-air-emissions/approved-methods-modelling-assessing-air-pollutants">https://www.epa.nsw.gov.au/your-environment/air/industrial-emissions/modelling-assessing-air-emissions/approved-methods-modelling-assessing-air-pollutants</a>
National Environment Protection (Ambient Air Quality) Measure	<a href="http://www.nepc.gov.au/nepms/ambient-air-quality">http://www.nepc.gov.au/nepms/ambient-air-quality</a>
No EPA specific guidance material exists for the control of dust from construction sites. Consideration should be given to the POEO Act and the Local Government Air Quality Toolkit (DECC, 2007)	<a href="http://www.epa.nsw.gov.au/air/lqaqt.htm">http://www.epa.nsw.gov.au/air/lqaqt.htm</a>

Technical Framework - Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006) and Technical Notes - Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006)	<a href="https://www.epa.nsw.gov.au/your-environment/air/industrial-emissions/managing-odour/technical-framework-odour">https://www.epa.nsw.gov.au/your-environment/air/industrial-emissions/managing-odour/technical-framework-odour</a>
<b><u>Water/Soils</u></b>	
ANZECC Guidelines for Fresh and Marine Water Quality (2018)	<a href="https://www.waterquality.gov.au/guidelines/anz-fresh-marine">https://www.waterquality.gov.au/guidelines/anz-fresh-marine</a>
NSW Water Quality and River Flow Objectives	<a href="http://www.environment.nsw.gov.au/ieo/index.htm">http://www.environment.nsw.gov.au/ieo/index.htm</a>
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	<a href="http://deccnet/water/resources/AWQGuidance7.pdf">http://deccnet/water/resources/AWQGuidance7.pdf</a>
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	<a href="https://www.epa.nsw.gov.au/your-environment/water/polices-guidelines-and-programs">https://www.epa.nsw.gov.au/your-environment/water/polices-guidelines-and-programs</a>
Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)	No longer online
Managing urban stormwater: soils and construction, vol. 1 (Landcom, 2004) and Addendum Publications (Various)	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/managing-urban-stormwater-soils-and-construction-volume-1-4th-edition">https://www.environment.nsw.gov.au/research-and-publications/publications-search/managing-urban-stormwater-soils-and-construction-volume-1-4th-edition</a>
Landslide Risk Management (2007)	<a href="http://www.australiangeomechanics.org/resources/downloads/">http://www.australiangeomechanics.org/resources/downloads/</a>
Site Investigations for Urban Salinity (DLWC, 2002)	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/site-investigations-for-urban-salinity">https://www.environment.nsw.gov.au/research-and-publications/publications-search/site-investigations-for-urban-salinity</a>
Dryland Salinity Resources (Various)	<a href="https://www.environment.nsw.gov.au/topics/land-and-soil/soil-degradation/salinity">https://www.environment.nsw.gov.au/topics/land-and-soil/soil-degradation/salinity</a>
<b><u>Contaminated Sites Assessment and Remediation</u></b>	
Contaminated Land – EPA website	<a href="https://www.epa.nsw.gov.au/your-environment/contaminated-land">https://www.epa.nsw.gov.au/your-environment/contaminated-land</a>
Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	<a href="http://www.epa.nsw.gov.au/clm/planning.htm">http://www.epa.nsw.gov.au/clm/planning.htm</a>
Guidelines for the NSW Site Auditor Scheme – 3rd Edition (EPA, 2017)	<a href="https://www.epa.nsw.gov.au/publications/contaminatedland/17p0269-guidelines-for-the-nsw-site-auditor-scheme-third-edition">https://www.epa.nsw.gov.au/publications/contaminatedland/17p0269-guidelines-for-the-nsw-site-auditor-scheme-third-edition</a>
Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)	<a href="https://www.epa.nsw.gov.au/your-environment/contaminated-land/site-auditor-scheme">https://www.epa.nsw.gov.au/your-environment/contaminated-land/site-auditor-scheme</a>
Sampling Design Guidelines (EPA, 1995)	<a href="https://www.epa.nsw.gov.au/your-environment/contaminated-land/statutory-guidelines">https://www.epa.nsw.gov.au/your-environment/contaminated-land/statutory-guidelines</a>
National Environment Protection (Assessment of Site Contamination) Measure	<a href="http://www.nepc.gov.au/nepms/assessment-site-contamination">http://www.nepc.gov.au/nepms/assessment-site-contamination</a>
<b><u>Waste</u></b>	
NSW Waste Avoidance and Resource Recovery Strategy 2014-2021	<a href="http://www.epa.nsw.gov.au/wastestrategy/warr.htm">http://www.epa.nsw.gov.au/wastestrategy/warr.htm</a>
Waste Classification Guidelines – 4 Parts (EPA, 2014)	<a href="http://www.epa.nsw.gov.au/wasteregulation/classify-waste.htm">http://www.epa.nsw.gov.au/wasteregulation/classify-waste.htm</a>

**Chemical and Fuel Storage**

Storage and Handling of Dangerous Goods – Code of Practice (WorkCover, 2005)

[http://www.safework.nsw.gov.au/\\_data/assets/pdf\\_file/0005/50729/storage-handling-dangerous-goods-1354.pdf](http://www.safework.nsw.gov.au/_data/assets/pdf_file/0005/50729/storage-handling-dangerous-goods-1354.pdf)



## MINING, EXPLORATION & GEOSCIENCE ADVICE RESPONSE

Jack Turner  
Senior Environmental Assessment Officer  
Energy, Industry & Compliance Division  
Department of Planning, Industry and Environment  
Locked Bag 5022  
PARRAMATTA NSW 2150

[Jack.Turner@planning.nsw.gov.au](mailto:Jack.Turner@planning.nsw.gov.au)

Dear Jack

**Project: Federation Project**

**Stage: Advice on SEARs**

**Development Application: SSD-24319456**

I refer to your correspondence dated 26 July 2021 inviting the Department of Regional NSW – Mining, Exploration & Geoscience (MEG) to provide comments on the Federation Project submitted by Aurelia Metals Limited (the Proponent).

MEG has reviewed the information supplied in relation to the abovementioned Project and requires that the Project's Environmental Impact Statement (EIS) refers to and includes all requirements set out in MEG's Secretary's Environmental Assessment Requirements provided in Attachment 1 (DOC21/625521).

For further enquiries, please contact Adam Banister, Senior Advisor – Industry Development on 02 4063 6972 or [assessment.coordination@planning.nsw.gov.au](mailto:assessment.coordination@planning.nsw.gov.au).

Yours sincerely

Scott Anson  
**Manager Assessment Coordination**  
**Department of Regional NSW – Mining, Exploration & Geoscience**  
9 August 2021

for  
Stephen Wills  
**Executive Director Assessment and Systems**  
**Department of Regional NSW – Mining, Exploration & Geoscience**

Agency update

Please note Mining, Exploration & Geoscience recently incorporated the Resources Regulator to form a larger agency. Advice will continue to be provided separately reflecting functional responsibilities. The Assessment and Systems Branch provides information and advice on mineral resource and mine development and mining title requirements. Matters relating to subsidence, subsidence management, mine operator, safety, rehabilitation and environmental impacts of final landform design should be referred to the Resources Regulator.

# Mining, Exploration & 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

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<b>Project</b>	Federation Project
<b>Reference Number:</b>	DOC21/625521
<b>Issue date of SEARs:</b>	9 August 2021
<b>Type of Approval:</b>	Mining operation - underground
<b>Proponent:</b>	Aurelia Metals Limited
<b>DA Number:</b>	SSD-24319456
<b>LGA:</b>	Shire of Cobar
<b>Mineral:</b>	Lead, Zinc & Gold

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***In preparing the environmental assessment requirements concerning an application for Significant State 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 approval under the *Mining Act 1992* to be issued by the Department of Regional NSW – Mining, Exploration & Geoscience (MEG). The proponent must apply to MEG 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.

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## **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:

- location map showing the project area, mining titles, nearest town/s, major roads etc
- status of all existing titles (including mining and exploration), and development consents in place and/or a timeline to obtain necessary approvals
- any relationships between the resource and existing mines or other infrastructure
- nature of the operation (for example, underground block caving) 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 description of the local and regional geology including supporting maps and diagrams

- 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)
- 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
- details of the ore and waste rock, including mineralogy and deleterious elements
- evidence of geological and grade (or quality) continuity of mineralisation in the deposit such as
  - contaminants and/or ore specifications
  - model grade domains
  - an 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.

- 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). It is preferred that a significant amount of the resources are estimated to at least indicated or equivalent high-level of confidence.

MEG 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 recovery and mine design

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

- a summary of resources that may be sterilised or excluded, with justification. Where the proposed mining/production scheme excludes resources that would normally be regarded as potentially economic by current industry standards, MEG requires appropriate economic and/or technical justification for the proposed mining/production scheme
- a description of how the proposed mine plan and extraction method maximises resource recovery and is achievable and consistent with current industry best practice.
- specify why the mine design has been chosen (noting resource, design, commercial/economic constraints) and why this is the best outcome; detailing the options considered in arriving at the final landform design
- a summary of the processing and recovery methods including equipment and mining loss and dilution
- all economic, environmental, geological, geotechnical and other constraints to the recovery of the resource/reserve impacting the project.

## 5. 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:

- details of run-of-mine and product ore (tonnes/ounces), 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, show the proposed extent and sequence of the development
- life of mine schedule should include estimates of non-acid forming (NAF) and potentially acid forming (PAF) material in waste/tailings. projections of handling and placement should be provided, including maps and diagrams. Tonnages of limestone, lime and any other material required for acid neutralisation should be included.

## 6. Geotechnical assessment

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

- consideration of local geological structure and its influence on stability and ground control/coal mine strata control. General and relevant site conditions including; depths of cover, geological, hydrogeological, hydrological, geotechnical, topographic and climatic conditions
- a geotechnical assessment of slope stability concerning proposed high walls, low walls and overburden emplacement to achieve long-term operational and rehabilitation outcomes; or confirmation that this will be undertaken before development application/submission of an EIS or MRT.

### *Underground metallics (additional requirements)*

- an analysis of ground behaviour and ground management strategies
- description of ground support system design for static and dynamic conditions that includes performance monitoring methods
- evaluation of stress management and quality control and support elements during mining operations
- identification and general characteristics of surface and subsurface features that may be affected by subsidence caused by the proposed mining.

## 7. Project economics, royalty and target market

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

- price forecasts by product type used by the proponent. MEG requires these forecasts to analyse the proponent's calculations of royalty value and export value
- CAPEX & OPEX necessary for the project broken down into the various sub-categories and equipment types. Include any changes that the project will have on existing mine infrastructure and broader mine infrastructure - rail, processing plant etc
- estimates of employment generation broken down into direct & indirect, ongoing & construction and operator & contract workers as full-time equivalent (FTE) roles
- total royalty generated annually and over the life of the project
- relationship and interaction with other mines and detail the project impacts on the existing mine and surrounding mines
- year-by-year production schedule and why this is the optimum schedule

- project funding source and assurance of ongoing project and operations funding from the proponent or parent. MEG is seeking the proponent's commitment to advancing the project.
- transport types and routes from site to market.

## 8. Rehabilitation and final landform

The proponent must supply an analysis of the proposed rehabilitation and final landform including:

- rehabilitation methodology, objectives and outcomes, including life-of-mine tailings management strategy
- conceptual final landform design (including any voids) accounting for mine design, engineering feasibility, economic feasibility and balance of environmental and social outcomes
- post-mining land use and barriers or limitations to effective rehabilitation.

It should be noted that rehabilitation is assessed by the Resources Regulator. The Regulator does not provide any endorsement of the proposed rehabilitation methodologies presented in the EIS or MRT. Under the conditions of a mining authority granted under the *Mining Act 1992* and conditions of the Mining Amendment (Standard Conditions of Mining Leases—Rehabilitation) Regulation 2021, the Resources Regulator requires an authority holder to adopt a risk-based approach to achieving the required rehabilitation outcomes.

A detailed rehabilitation strategy is to be presented to the Rehabilitation & Securities Panel (RASP). See the section below for further information on RASP.

For further information on mine rehabilitation follow this [link](#).

## 9. Spatial Data

The Proponent is to supply the following shapefile(s) and/or coordinates to enable MEG's internal mapping and assessment of the project:

- The project/development application area(s).
- Discreet features within the project area, for example mine extraction area/pit, ventilation shafts, underground entry portal/box cut, mine infrastructure area, rail loop, ancillary water storage dam(s), tailings dam(s).

Discreet project features must be in separate files and labelled clearly to demarcate from the main project area. Data must be supplied in GDA 1994 MGA coordinate system, UTM projection and shape files in ESRI shape file format.

Spatial data is to be sent to [assessment.coordination@planning.nsw.gov.au](mailto:assessment.coordination@planning.nsw.gov.au) on submission of the EIS or MRT.

***All 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 MEG with full resource documentation via MEG's Resource and Economic Assessment process.***

## Additional matters for attention

### Resource and Economic Assessment

Before any determination by the relevant consent authority, MEG is responsible for ensuring the efficient and optimised development of the resource.

This is assessed by undertaking a Resource & Economic Assessment (REA), as part of MEG's review process at the Environmental Impact Statement or Modification Report stage. The REA allows detailed assessment of the resource/reserve estimates and social and economic benefits to NSW as stated in the project and supporting material.

MEG's analysis concentrates on geological, mining and economic aspects of the project and will confirm if the production schedule and economics are considered feasible.

The REA should take place approximately six weeks before submission of the EIS or Modification Report.

The REA can be arranged by contacting the Mine Assessment Coordination Unit on 02 4063 6534 or via email at [assessment.coordination@planning.nsw.gov.au](mailto:assessment.coordination@planning.nsw.gov.au).

## Biodiversity offsets

MEG 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.

MEG 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

MEG notes that this Project, as it currently stands, is located within the existing title area of Exploration Licence 6162 (Act 1992) (EL 6162) (Group 1 minerals).

As Lead, Gold and Zinc are prescribed mineral(s) under the *Mining Act 1992*, the Proponent must obtain the appropriate mining title(s), such as a mining lease, from MEG allowing for mineral extraction (Lead, Gold and Zinc) over the project area within EL 6162.

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*.

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.

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.

For ancillary mining activities a proponent holding a mining lease granted in respect of mineral/s may, in accordance with the lease conditions, carry out any ancillary mining activity on that land (see definition of ancillary mining activity in clause 7 of the *Mining Regulations 2016*).

There is a subset of ancillary mining activity that the legislation defines as 'designated ancillary mining activity' (defined in section 6(6) of the *Mining Act 1992*).

A proponent seeking to undertake designated ancillary mining activity on land inside the mining area must ensure that the mining lease granted in respect of mineral/s contains a condition allowing undertaking of this designated ancillary mining activity (Section 6(1) of the *Mining Act 1992*).

A proponent seeking to undertake a designated ancillary mining activity outside a mining area, but in the immediate vicinity of and that directly facilitates the mining lease in respect of mineral(s), must apply for one of the following:

1. A separate mining lease for the designated ancillary mining activity which authorises the carrying out of the activity. (This provides the holder with the right to access the mining area to undertake the ancillary mining activity, however does not provide the holder with the right to mine).
2. A condition on an existing mining lease that regulates the carrying out of the designated ancillary mining activity in an off-title area. (See section 6(2) of the *Mining Act 1992*). The ancillary mining activity condition will include the survey plan of the designated ancillary mining activity area on which the designated ancillary mining activity is (or is proposed to be) located.

## Approvals

Position	Approval	Date
Endorsing Officer: Adam W. Banister Senior Advisor Assessment Coordination Industry Development (02) 4063 6534		4 August 2021
Approving Officer: Scott Anson Manager Assessment Coordination Industry Development (02) 4063 6972		9 August 2021



Our ref: DOC21/659905

Jack Turner  
Senior Environmental Assessment Officer  
Energy Resource Assessment  
Department of Planning, Industry and Environment  
[jack.turner@planning.nsw.gov.au](mailto:jack.turner@planning.nsw.gov.au)

Dear Jack

**Federation Gold Project SSD 24319456 - SEARs**

I refer to your email dated 26 July 2021 seeking input into the Department of Planning, Industry and Environment Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for the proposed Federation Gold Project (SSD 24319456).

The Biodiversity, Conservation and Science Directorate (BCS) has considered your request and provides SEARs for the proposed development in **Attachments A and B**.

BCS recommends the EIS needs to appropriately address the following:

1. Biodiversity and offsetting
2. Water and soils
3. Flooding

**Please note the following;**

1. The Biodiversity Assessment Method 2020 came into effect on 22 October 2020. There are transitional arrangements in place to minimise the impacts that amendments to the BAM may have on proponents and landholders. **Attachment A** provides details of the transitional arrangements.

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](mailto:michelle.howarth@environment.nsw.gov.au) or (02) 6883 5339.

Yours sincerely,

**Renee Shepherd**  
Acting Senior Team Leader Planning North West  
Biodiversity, Conservation and Science Directorate

4 August 2021

Attachment A - Environmental Assessment Requirements

Attachment B - Guidance Material

## Standard Environmental Assessment Requirements

BCS	Biodiversity, Conservation and Science Directorate of the NSW Department of Planning, Industry and Environment, formerly OEH
The Department	NSW Department of Planning, Industry and Environment
NPWS	National Parks and Wildlife Service

Transitional arrangements for the <i>Biodiversity Assessment Method 2020</i>
<p>Clause 6.31 of the <i>Biodiversity Conservation Regulation 2017</i> provides that when the BAM is amended, a BAR may be prepared based on the prior version of the BAM for the following designated periods;</p> <ul style="list-style-type: none"> <li>• 12 months for a BDAR in respect of SSD/SSI or standard biocertification,</li> <li>• 12 months or longer if approved by the Minister for a BDAR in respect of strategic biocertification,</li> <li>• 6 months for BARs in respect of all other development or stewardship applications</li> </ul> <p>A BAR prepared under these arrangements must state that it has been prepared based on the prior version.</p> <p>This means that from 22 October 2020 until the end of the relevant designated transition period a BAR may be prepared using <b>either</b> the BAM 2017 <b>or</b> the BAM 2020, but not a combination of both.</p> <p>If an Accredited Assessor has commenced preparing a BAR in accordance with the BAM 2017, it is recommended that they discuss the transition options with the proponent/landholder. If opting to continue using the BAM 2017, the BAR must be prepared within the relevant designated period and must include a statement that it has been prepared based on the BAM 2017. In addition, because BOAMs has been updated to reflect the BAM 2020 settings, an assessor continuing to prepare a BAR under the BAM 2017 should consult the <a href="#">Release Notes</a> to ensure the correct BAM-C settings are applied.</p> <p>Where an assessor proposes to apply BAM 2017 to a scattered tree (formerly paddock tree) or small area streamlined assessment, the assessor must contact BAM Support for guidance on how to use the BAM Calculator to apply the transitional arrangements. However, if the applicant or assessor proposes to apply BAM 2017 to a BSSAR, the applicant or assessor must contact the Biodiversity Conservation Trust to discuss use of this option.</p> <p>A guidance document which lists the revisions made from BAM 2017 to BAM 2020 can be found <a href="#">here</a>.</p>

Category 1 – exempt land
<p>Clearing of native vegetation on land that meets the definition of Category 1 - exempt land (as defined under the <i>Local Land Services Act 2013</i> (LLS Act)) does not require assessment or offsetting under the <i>Biodiversity Conservation Act 2016</i>. Prescribed impacts as outlined in chapter 6 of the Biodiversity Assessment Method (2020) must still be considered on Category 1 - exempt land. In addition, potential impacts to Matters of National</p>

Environmental Significance under the *Environment Protection and Biodiversity Conservation Act 1999* on Category 1 – exempt land must be considered.

Where an assessor identifies land as Category 1 – exempt land it must be adequately demonstrated that the identified land meets the criteria as set out in section 60H of the LLS Act. Multiple pieces of evidence should be used to demonstrate a Category 1 – exempt land designation. This might include:

- Publicly available data sets on the SEED data portal, such as:
  - Land use mapping – used to identify and map existing and historical agricultural land use in NSW – see the [2017 landuse map](#)
  - Woody vegetation extent – used to identify and map native vegetation extent – see [2008 Woody extent 2011 woody extent](#)
  - State-wide Landcover and Tree Survey (SLATS) woody clearing for NSW – used to identify detectable clearing events since January 1990 – [available here](#)
- Published information on the Native Vegetation Regulatory Map, including Category 2-sensitive regulated, Category 2-vulnerable regulated, and excluded land - [available here](#)
- Site-based information and records, including:
  - Current and historical high-resolution aerial photography
  - current and historical photographs of the subject land
  - historical land management records maintained by the landowner
  - vegetation survey data collected on the subject land
  - documentation demonstrating history of authorised clearing and/or development

The published [Native Vegetation regulatory map: method statement](#) should be reviewed to determine how the datasets can be best interrogated to support any identification of Category 1 – exempt land.

Where datasets/information provide contradictory information, a precautionary approach should be applied and the land should be categorised as Category 2 – regulated land.

Where Category 1 – exempt land is likely to be present on a development site, early engagement with BCS is encouraged. Prior to the Biodiversity Development Assessment Report being submitted to the consent authority, the accredited assessor should submit a proposed land categorisation method to the BCS North West Planning team at [rog.nw@environment.nsw.gov.au](mailto:rog.nw@environment.nsw.gov.au) for endorsement.

## Biodiversity

1. Biodiversity impacts related to the proposed development are to be assessed in accordance with [Section 7.9 of the Biodiversity Conservation Act 2016](#) 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 the Department determines 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:

- a. The total number and classes of biodiversity credits required to be retired for the development/project;
- b. The number and classes of like-for-like biodiversity credits proposed to be retired;
- c. The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules;
- d. Any proposal to fund a *biodiversity conservation action*;
- e. Any proposal to conduct ecological rehabilitation (if a mining project);
- f. 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*.

## Water and soils

6. 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.
7. 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*) 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*.
8. 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.
9. 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

- 10. The EIS must map the following features relevant to flooding as described in the *Floodplain Development Manual 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.
- 11. 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.
- 12. 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.
- 13. Modelling in the EIS must consider and document:
  - a. Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies;
  - b. 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;
  - c. 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;
  - d. Relevant provisions of the NSW *Floodplain Development Manual 2005*.
- 14. 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 affection 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 riverbanks 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 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 NSW SES;
- k. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

## Guidance Material

Title	Web address
<b><u>Relevant Legislation</u></b>	
<i>Biodiversity Conservation Act 2016</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-2016-063">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-2016-063</a>
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	<a href="https://www.legislation.gov.au/Details/C2014C00140/Download">https://www.legislation.gov.au/Details/C2014C00140/Download</a>
<i>Environmental Planning and Assessment Act 1979</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1979-203">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1979-203</a>
<i>Fisheries Management Act 1994</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1994-038">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1994-038</a>
<i>National Parks and Wildlife Act 1974</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1974-080">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1974-080</a>
<i>Protection of the Environment Operations Act 1997</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1997-156">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1997-156</a>
<i>Water Management Act 2000</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-2000-092">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-2000-092</a>
<i>Wilderness Act 1987</i>	<a href="https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1987-196">https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1987-196</a>
<b><u>Biodiversity</u></b>	
<i>Biodiversity Assessment Method (OEH, 2020)</i>	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-2020">https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-2020</a>
<i>Changes to the Biodiversity Assessment Method from 2017 to 2020</i>	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/changes-to-the-biodiversity-assessment-method-from-2017-to-2020">https://www.environment.nsw.gov.au/research-and-publications/publications-search/changes-to-the-biodiversity-assessment-method-from-2017-to-2020</a>
<i>BAM 2020 Operational Manual Stage 1</i>	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-manual-2020-operational-manual-stage-1">https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-manual-2020-operational-manual-stage-1</a>
<i>BAM Operational Manual Stage 2</i>	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-operational-manual-stage-2">https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-operational-manual-stage-2</a>
<i>BAM 2020 Operational Manual Stage 3</i>	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-operational-manual-stage-3">https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-operational-manual-stage-3</a>
<i>BAM Calculator User Guide</i>	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-user-guide">https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-user-guide</a>
<i>Serious and irreversible impacts of development on biodiversity</i>	<a href="https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/biodiversity-offsets-scheme/serious-and-irreversible-impacts">https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/biodiversity-offsets-scheme/serious-and-irreversible-impacts</a>
<i>Practice Note - Guidance for assessors and decision makers in applying modified benchmarks to assessments of vegetation integrity: Biodiversity Assessment Method</i>	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/guidance-assessors-decision-makers-applying-modified-benchmarks-to-assessments-vegetation-integrity">https://www.environment.nsw.gov.au/research-and-publications/publications-search/guidance-assessors-decision-makers-applying-modified-benchmarks-to-assessments-vegetation-integrity</a>

Title	Web address
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	<a href="https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf">https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf</a>
Accreditation Scheme for Application of the Biodiversity Assessment Method Order 2017	<a href="https://www.legislation.nsw.gov.au/view/pdf/asmade/sl-2017-471">https://www.legislation.nsw.gov.au/view/pdf/asmade/sl-2017-471</a>
Ancillary rules: Biodiversity conservation actions	<a href="https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/ancillary-rules-biodiversity-conservation-actions-170496.pdf">https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/ancillary-rules-biodiversity-conservation-actions-170496.pdf</a>
Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules	<a href="https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/ancillary-rules-reasonable-steps-like-for-like-biodiversity-credits-170498.pdf">https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/ancillary-rules-reasonable-steps-like-for-like-biodiversity-credits-170498.pdf</a>
Ancillary rules: Impacts on threatened species and ecological communities excluded from application of variation rules	<a href="https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/ancillary-rules-impacts-on-threatened-entities-excluded-from-variation-170497.pdf?la=en&amp;hash=C38840BFF49F012433532DF72E3D90C741E4DAC1">https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/ancillary-rules-impacts-on-threatened-entities-excluded-from-variation-170497.pdf?la=en&amp;hash=C38840BFF49F012433532DF72E3D90C741E4DAC1</a>
The Department's Threatened Species Website	<a href="https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species">https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species</a>
NSW BioNet (Atlas of NSW Wildlife)	<a href="http://www.bionet.nsw.gov.au/">www.bionet.nsw.gov.au/</a>
Surveying Threatened Plants and their Habitats - NSW Survey Guide For The Biodiversity Assessment Method (DPIE 2020).	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/surveying-threatened-plants-and-their-habitats-survey-guide-for-the-biodiversity-assessment-method">https://www.environment.nsw.gov.au/research-and-publications/publications-search/surveying-threatened-plants-and-their-habitats-survey-guide-for-the-biodiversity-assessment-method</a>
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - November 2004	<a href="https://www.environment.nsw.gov.au/surveys/BiodiversitySurveyGuidelinesDraft.htm">https://www.environment.nsw.gov.au/surveys/BiodiversitySurveyGuidelinesDraft.htm</a>
Threatened species survey and assessment guidelines: field survey methods for fauna – amphibians	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/threatened-species-field-survey-methods-for-fauna-amphibians">https://www.environment.nsw.gov.au/research-and-publications/publications-search/threatened-species-field-survey-methods-for-fauna-amphibians</a>
NSW Survey Guide for Threatened Frogs	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/nsw-survey-guide-for-threatened-frogs">https://www.environment.nsw.gov.au/research-and-publications/publications-search/nsw-survey-guide-for-threatened-frogs</a>
Surveying 'species credit' threatened bats and their habitats – NSW survey guide for the Biodiversity Assessment Method	<a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/species-credit-threatened-bats-nsw-survey-guide-for-biodiversity-assessment-method">https://www.environment.nsw.gov.au/research-and-publications/publications-search/species-credit-threatened-bats-nsw-survey-guide-for-biodiversity-assessment-method</a>
Bat calls of NSW - region-based guide to the echolocation calls of Microchiropteran bats	<a href="https://www.environment.nsw.gov.au/surveys/Batcalls.htm">https://www.environment.nsw.gov.au/surveys/Batcalls.htm</a>
Community Biodiversity Survey Manual	<a href="https://www.environment.nsw.gov.au/surveys/CommunityBiodiversitySurveyManual.htm">https://www.environment.nsw.gov.au/surveys/CommunityBiodiversitySurveyManual.htm</a>
BioNet Vegetation Classification - NSW Plant Community Type (PCT) database	<a href="http://www.environment.nsw.gov.au/research/Vegetationinformationsystem.htm">www.environment.nsw.gov.au/research/Vegetationinformationsystem.htm</a>

Title	Web address
The Departments Data Portal (access to online spatial data)	<a href="http://data.environment.nsw.gov.au/">http://data.environment.nsw.gov.au/</a>
Fisheries NSW policies and guidelines	<a href="https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation">https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation</a>
List of national parks	<a href="https://www.nationalparks.nsw.gov.au/conservation-and-heritage/national-parks">https://www.nationalparks.nsw.gov.au/conservation-and-heritage/national-parks</a>
Revocation, recategorisation and road adjustment policy (OEH, 2012)	<a href="https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/revocation-recategorisation-and-road-adjustment">https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/revocation-recategorisation-and-road-adjustment</a>
Guidelines for consent and planning authorities for Developments adjacent to National Parks and Wildlife Service Land (NPWS, 2020)	<a href="https://www.environment.nsw.gov.au-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Development-guidelines/developments-adjacent-npws-lands-200362.pdf">https://www.environment.nsw.gov.au-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Development-guidelines/developments-adjacent-npws-lands-200362.pdf</a>
<b><u>Water and Soils</u></b>	
<b>Acid sulphate soils</b>	
Acid Sulfate Soils Planning Maps via Data.NSW	<a href="https://data.nsw.gov.au/data/dataset/acid-sulphate-soils-ass-planning-maps">https://data.nsw.gov.au/data/dataset/acid-sulphate-soils-ass-planning-maps</a>
Acid Sulfate Soils Manual (Stone et al. 1998)	<a href="https://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf">https://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf</a>
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	<a href="http://www.environment.nsw.gov.au/resources/soils/acid-sulfate-soils-laboratory-methods-guidelines.pdf">http://www.environment.nsw.gov.au/resources/soils/acid-sulfate-soils-laboratory-methods-guidelines.pdf</a> This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
<b>Flooding</b>	
Floodplain development manual	<a href="https://www.environment.nsw.gov.au/topics/water/floodplains/floodplain-manual">https://www.environment.nsw.gov.au/topics/water/floodplains/floodplain-manual</a>
Floodplain Risk Management Guidelines	<a href="http://www.environment.nsw.gov.au/topics/water/coasts-and-floodplains/floodplains/floodplain-guidelines">http://www.environment.nsw.gov.au/topics/water/coasts-and-floodplains/floodplains/floodplain-guidelines</a>
NSW Climate Impact Profile	<a href="http://climatechange.environment.nsw.gov.au/">http://climatechange.environment.nsw.gov.au/</a>
Climate Change Impacts and Risk Management	<a href="https://www.environment.gov.au/climate-change/adaptation/publications/climate-change-impact-risk-management">https://www.environment.gov.au/climate-change/adaptation/publications/climate-change-impact-risk-management</a>
<b>Water</b>	
Water Quality Objectives	<a href="http://www.environment.nsw.gov.au/ieo/index.htm">http://www.environment.nsw.gov.au/ieo/index.htm</a>
ANZECC & ARMCANZ (2000) Water Quality Guidelines	<a href="https://www.waterquality.gov.au/anz-guidelines/resources/previous-guidelines/anzecc-armcanz-2000">https://www.waterquality.gov.au/anz-guidelines/resources/previous-guidelines/anzecc-armcanz-2000</a>
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	<a href="http://deccnet/water/resources/AWQGuidance7.pdf">http://deccnet/water/resources/AWQGuidance7.pdf</a>
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	<a href="http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf">http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf</a>



9 August 2021

SF2011/002339; WST11/00046/20

The Manager  
Industry Assessments  
Department of Planning, Industry and Environment  
PO Box 39  
Sydney NSW 2001

**Attn: Jack Turner**

Dear Mr Turner

**SSD-24319456: Lot 664 DP 761702 and others; 353 Burthong Road, Nymagee  
Federation Project: 750ktpa underground gold and metalliferous mine  
Request for Secretary's Environmental Assessment Requirements (SEARs)**

Thank you for the referral requesting input to the Secretary's Environmental Assessment Requirements (SEARS) for the abovementioned development proposal received via the NSW Major Projects Planning Portal on 26 July 2021.

TfNSW understands based on the Scoping Report proposed development will involve:

- The proposal is for establishment and operation of underground gold and metalliferous mining activities at the proposed Federation site (Lot 3586 DP 769242 and others), with supporting surface infrastructure, mining approximately 6.95 million tonnes (Mt) of ore over a period of 12 to 14 years.
- Operations would utilise existing personnel and plant based at Hera Mine (Lot 664 DP 761702) as extraction operations at Hera conclude by 2024. Due to higher annual production at Federation compared to Hera Mine (up to 750 thousand tonnes per annum [ktpa] compared to 505ktpa), the Federation workforce numbers, and equipment requirements would be higher than for the Hera Mine.
- Ore from the Federation Deposit would primarily be transported along Burthong Road for processing at Hera Mine. Up to 200ktpa of Federation ore would be transported for processing at the Peak Mine at Cobar along Burthong Rd, Priory Tank Rd (classified Regional road MR461) and Kidman Way (classified State road MR410). Ore would be transported in trucks with an approximate 50t payload.
- Concentrate from Hera Mine would be trucked via Nymagee-Hermidale Road (classified Regional MR228) to the Hermidale rail siding off the Barrier Highway (State HW8) for transport by rail, and concentrate from Peak Mine would be transported to Hermidale or Dubbo rail sidings, both as per the current concentrate transport methods and truck sizing.

- The applicant proposes to incorporate the existing operations at Hera Mine into this SSD application for the Federation Project, and upon approval, it is intended the current Hera Mine approval (MP10\_0191) would be surrendered.

TfNSW has reviewed the submitted documentation and identified the following key points to be addressed in the Environmental Impact Statement being prepared in support of the project:

- The SSD application is to include details of any incremental and cumulative changes to existing approved haulage arrangements on all classified roads, for example in terms of truck capacity, annual and peak hourly volumes. It is noted haulage of ore between Hera and Peak Mines under MP10\_0191 MOD 6 is currently limited to 100ktpa (one-way) and is proposed to increase to 200ktpa. Peak hourly truck limits also apply under MP10\_0191 conditions 37A and 37B.
- Upgrade works for Burthong Rd / Priory Tank Rd intersection, Kidman Wy / Priory Tank Rd intersection and the Kidman Wy / Peak Mine access road intersection also apply under MP10\_0191 MOD 6 (condition 35C). The timing of these works in relation to the current proposal (e.g. prior to commencement of haulage) is to be outlined.

TfNSW requests that the Environmental Impact Statement be supported by a Traffic Impact Assessment prepared by a suitably qualified person in accordance with the Austroads Guide to Traffic Management Part 12, Roads and Maritime's Supplements to Austroads and the RTA Guide to Traffic Generating Developments. The TIA is to address the following.

- Project schedule:
  - Hours and days of work, number of shifts and start and end times,
  - Transport considerations at each phase and stage of the project, including construction, operation and decommissioning,
- Traffic volumes:
  - Existing background traffic,
  - Project-related traffic for each phase or stage of the project,
  - Projected cumulative traffic at commencement of operation, and a 10-year horizon post-commencement,
- Traffic characteristics:
  - Number and ratio of heavy vehicles to light vehicles,
  - Peak times for existing traffic,
  - Peak times for project-related traffic including commuter periods,
  - Proposed hours for transportation and haulage,
  - Interactions between existing and project-related traffic,
- A description of all over size and over mass vehicles and the materials to be transported
- The origins, destinations and routes for:
  - Commuter (employee and contractor) light vehicles and pool vehicles,
  - Heavy (haulage) Vehicles,
  - Over size and over mass vehicles,

- Road safety assessment of key haulage route/s,
- The impact of traffic and transport generation on the public road and rail network and measures employed to ensure traffic efficiency and road safety during construction, operation and decommissioning of the project,
- The need for improvements to the road network, and the improvements proposed such as road widening and intersection treatments, to cater for and mitigate the impact of project related traffic,
- Proposed road facilities, access and intersection treatments are to be identified and be in accordance with Austroads Guide to Road Design including provision of Safe Intersection Sight Distance (SISD),
- Local climate conditions that may affect road safety during the life of the project (e.g. fog, wet and dry weather, icy road conditions),
- Identification and assessment of potential impacts of the project, such as lighting, visual, noise, dust and drainage on the function and integrity of all affected public roads,
- Propose a Traffic Management Plan (TMP) to be developed following approval of the EIS, in consultation with relevant Councils and TfNSW. The TMP would need to identify strategies to manage the impacts of project related traffic, including any community consultation measures for peak haulage periods.
- Propose a Driver Code of Conduct for haulage operations which could include, but not be limited to:
  - Safety initiatives for haulage through residential areas and/or school zones.
  - An induction process for vehicle operators and regular toolbox meetings.
  - A public complaint resolution and disciplinary procedure.

TfNSW appreciates the opportunity to contribute to the SEARs and requests that a copy be forwarded to TfNSW at the same time it is sent to the applicant. If you wish to discuss this matter further, please contact Bevan Crofts, Case Officer on (02) 6861 1530.

Yours faithfully



Howard Orr  
Team Leader, Development Services - West  
Regional and Outer Metropolitan

**From:** [Nicholas Hon](#)  
**To:** [Jack Turner](#)  
**Cc:** [Doris Yau](#)  
**Subject:** RE: Federation Gold Project - SEARs request  
**Date:** Tuesday, 10 August 2021 9:38:41 AM  
**Attachments:** [image003.jpg](#)  
[image004.jpg](#)  
[image005.jpg](#)  
[image006.jpg](#)  
[image007.jpg](#)

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Hi Jack,

Thanks for referring this to us.

Having reviewed the scoping report, the following Hazards SEAR is recommended:

- **Hazards** – The EIS must include a preliminary risk screening in accordance with *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* and the Department's *Applying SEPP 33* with clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. If the preliminary risk screening indicate that the development is 'potentially hazardous', a Preliminary Hazard Analysis (PHA) must be prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'* and *Multi-Level Risk Assessment*.

Regards,

**Nicholas Hon**  
Technical Specialist (Hazards)  
Industry Assessments  
4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150  
T 02 9274 6344



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**From:** Jack Turner <[Jack.Turner@planning.nsw.gov.au](mailto:Jack.Turner@planning.nsw.gov.au)>  
**Sent:** Monday, 26 July 2021 3:46 PM  
**To:** Doris Yau <[doris.yau@planning.nsw.gov.au](mailto:doris.yau@planning.nsw.gov.au)>  
**Subject:** Federation Gold Project - SEARs request

Hi Doris

The Department has received a request for Secretary's Environmental Assessment Requirements for the Federation Gold Project. The Scoping Report is available at:  
<https://www.planningportal.nsw.gov.au/major-projects/project/42396>

Please see attached draft SEARs for your review. If you have any input on the draft SEARs please let me know by **9 August 2021**.

Hazards wording below for your convenience,

*Hazards and Risks – including:*

- a Preliminary Hazard Analysis (PHA), covering an assessment of the likely risks to public safety, paying particular attention to potential geochemical and bushfire risks, and storage, handling,

*transport and use of any dangerous goods associated with the development;*

Kind regards,

Jack

**Jack Turner**

Senior Environmental Assessment Officer  
Energy, Resources and Industry | Planning and Assessment  
6 Stewart Avenue | Newcastle NSW 2300  
**T: 02 9995 5387 E: [Jack.Turner@planning.nsw.gov.au](mailto:Jack.Turner@planning.nsw.gov.au)**



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*I wish to acknowledge the Traditional Custodians of the land and pay respect to all Elders past and present.*



OUT21/10060

Jack Turner  
Planning and Assessment Group  
NSW Department of Planning, Industry and Environment

[jack.turner@planning.nsw.gov.au](mailto:jack.turner@planning.nsw.gov.au)

Dear Mr Turner

**Federation Gold Project (SSD-24319456)  
Comment on the Secretary's Environmental Assessment Requirements (SEARs)**

I refer to your email of 26 July 2021 to the Department of Planning, Industry and Environment (DPIE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

The following recommendations are provided by 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 Water and NRAR can be sent by email to [landuse.enquiries@dpie.nsw.gov.au](mailto:landuse.enquiries@dpie.nsw.gov.au) or to the following coordinating officer within DPIE Water:

Alistair Drew, Project Officer- email: [alistair.drew@dpie.nsw.gov.au](mailto:alistair.drew@dpie.nsw.gov.au)

Yours sincerely

Alistair Drew  
Project Officer, Assessments  
**Water – Knowledge Office**  
28 July 2021



[Planning Number: SSD-24319456](#)

### **Federation Gold Project**

The Department of Planning, Industry and Environment – Crown Lands has reviewed this proposal.

Crown Lands notes that the proposal has identified low ongoing management and maintenance for Crown land involved in the project area, and the consequences if mismanaged, however long-term management and maintenance strategies were not specified for when the Crown land is no longer required for the proposal. Can this please be addressed by the proponent.

It is also noted that there may be possible clearing and development of a quarry on the hill, for storage of non-acid producing rock for road developments. Are additional environmental offsets being considered for this proposed clearing, under the *Biodiversity Conservation Act 2016*? Information regarding biodiversity offsets can be found at the following link:-  
<https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity-offsets-scheme/about-the-biodiversity-offsets-scheme>.

Thank you

Kirstyn Goulding  
**Administration Customer Liaison Officer**  
T 02 4920 5058 | E [lands.ministerials@dpie.nsw.gov.au](mailto:lands.ministerials@dpie.nsw.gov.au)

5/08/2021