

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*

Schedule 2 of the Environmental Planning and Assessment Regulation 2000

Application Number	SSD-24319456
Project Name	<p>Federation Project involving:</p> <ul style="list-style-type: none">underground mining of the Federation gold-lead-zinc-copper-silver 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; andsurrender of the Hera Mine development consent (MP10_0191) for consolidation with the Federation Project.
Location	Burthong Road, Nymagee, within the Cobar Shire local government area
Applicant	Hera Resources Pty Limited
Date of Issue	17/08/2021
General requirements	<p>The environmental impact statement (EIS) must be prepared in accordance with, and meet the minimum requirements of, clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000 (the Regulation)</i>.</p> <p>In particular, the EIS must include, but not necessarily be limited to, the following:</p> <ul style="list-style-type: none">a stand-alone executive summary;a full description of the development, including:<ul style="list-style-type: none">regional geology including a supporting map, the resource to be extracted, demonstrating efficient resource recovery within environmental constraints;details of the ore and waste rock, including mineralogy and deleterious elements and evidence of geological and grade (or quality) continuity of

mineralization in the deposit;

- the mine layout and scheduling;
- minerals processing and average and maximum annual production rates;
- details of construction, operation and decommissioning, including any proposed staging of the project or refurbishing of infrastructure over time;
- all components, infrastructure, materials, plant and equipment and activities (including any infrastructure that would be required for the development, but the subject of a separate approvals process);
- the likely interactions between the project and the existing Hera mine; and
- the likely interactions between the development and any other existing, approved or proposed developments in the vicinity of the site;

- site plans and maps at an adequate scale showing:
 - the location of project components;
 - existing infrastructure, land use, and environmental features in the vicinity of the project (including any other existing, approved or proposed infrastructure in the region); and
 - key environmental constraints that have been considered in the design of the project;
- a waste (overburden, tailings, etc.) management strategy;
- a water management strategy;
- a mine closure and rehabilitation strategy, including details of the progressive rehabilitation of the site;
- a general description of any infrastructure that would be required for, or linked to, the project that is the subject of a separate approval process;
- a strategic justification for the project;
- details of the approvals that must be obtained before the development may commence;
- the potential terms of any proposed voluntary planning agreement with the relevant local council;
- an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including:
 - a description of the existing environment likely to be affected by the development, using sufficient baseline data;

- an assessment of the likely impacts of all stages of the development, including any cumulative impacts, taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice;
- a description of the measures that would be implemented to avoid, mitigate and/or offset residual impacts of the development, including incident management procedures, and the likely effectiveness of these measures, and an assessment of:
 - whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation measures that could be implemented;
 - the likely effectiveness of these measures, including performance measures where relevant; and
 - whether contingency plans would be necessary to manage any residual risks; and
- a description of the measures that would be implemented to monitor and report on the environmental performance of the development if it is approved;
- a consolidated summary of the proposed environmental management and monitoring measures;
- consideration of the development against all relevant environmental planning instruments (including Part 3 of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*);
- an evaluation of the development as a whole, having regard to:
 - the requirements in Section 4.15 of the Environmental Planning and Assessment Act 1979, including ecologically sustainable development;
 - the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses and significant mineral resources;
 - the strategic need and justification for the development, having regard to the relevant NSW and national policies and guidelines;
 - feasible alternatives to the development (and its key components), including the consequences of not carrying out the project; and
 - the biophysical, economic and social costs and benefits of the development;
- a signed statement from the author of the EIS, certifying that the information contained within the document is neither false nor misleading.

The EIS must also be accompanied by a report from a qualified quantity

	<p>surveyor providing:</p> <ul style="list-style-type: none"> - a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived. The report shall be prepared on company letterhead and indicate applicable GST component of the CIV; - an estimate of jobs that will be created during the construction and operational phases of the proposed development; and - certification that the information provided is accurate at the date of preparation.
Key issues	<p>The EIS must address the following specific issues with the level of assessment of likely impacts proportionate to the significance of, or degree, of impact on, the issue, within the context of the project location and the surrounding environment and having regard to applicable NSW Government policies and guidelines.</p> <ul style="list-style-type: none"> ● Land and Soils – including an assessment of: <ul style="list-style-type: none"> - the likely impacts of the development on the soils and land capability of the site and surrounds, and a description of the mitigation and management measures to prevent, control or minimise impacts of the development; - whether the soils in the area of the project are potentially contaminated or are acid forming (i.e. acid sulphate soils) and if so, identification of best practice mitigation measures and strategies or remedial and/or disposal actions that will be required/undertaken if applicable in accordance with relevant guidance/standards; - the likely agricultural impacts of the development, including biosecurity risks; - the likely impact of the development on landforms (topography), including the long-term geotechnical stability of any new landforms on site; and - the compatibility of the development with other land uses in the vicinity of the development in accordance with the requirements of Clause 12 of <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>, paying particular attention to the agricultural land use in the region; ● Subsidence – including an assessment of the likely subsidence effects, and the potential consequences of these effects and impacts on the natural and built environment, paying particular attention to features that are considered to have significant economic, social, cultural or environmental value, and taking into consideration: <ul style="list-style-type: none"> - recorded regional and historic subsidence levels, impacts and environmental consequences; - geotechnical assessment that supports mining methods and mine design; - the potential extent of fracturing of the strata above the underground mine; and - the implementation of a comprehensive subsidence monitoring program, if required, which is capable of detecting vertical, horizontal and far-field subsidence movements;

- **Water** – including:
 - an assessment of the likely impacts of the development on the quantity and quality of surface, and groundwater resources, having regard to the *NSW Aquifer Interference Policy*;
 - an assessment of the hydrological characteristics of the site and downstream;
 - an assessment of the likely impacts of the development on aquifers, watercourses, riparian land, water-related infrastructure and systems and other water users, including impacts to water supply from dams, and riparian and licensed water users;
 - a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply and transfer infrastructure and water storage structures, and measures to minimise water use;
 - demonstration that water for the construction and operation of the development, for the life of the project, can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant *Water Sharing Plan* (WSP), and include an assessment of the current market depth where water entitlement is required to be purchased;
 - a description of the measures proposed, including monitoring activities and methodologies, to ensure the development can operate in accordance with the requirements of any relevant WSP or water source embargo;
 - a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts;
 - an assessment of the potential flooding impacts of the project;
- **Noise, Vibration and Blasting** – including:
 - Identification of representative noise monitoring locations for determining compliance with applicable noise goals and where relevant noise goals would be set as representative limits.
 - an assessment of the likely construction and operational noise impacts of the development in accordance with the *Noise Policy for Industry NSW*, and the *Voluntary Land Acquisition and Mitigation Policy*;
 - if a claim is made for specific construction noise criteria for certain activities, then this claim must be justified and accompanied by an assessment of the likely construction noise impacts of these activities in accordance with the *Interim Construction Noise Guideline* ;
 - an assessment of the likely road noise impacts of the development in accordance with the *NSW Road Noise Policy*; and
 - an assessment of the likely blasting impacts of the development on people, animals, buildings and infrastructure, and significant natural features, having regard to the relevant ANZECC guidelines;
- **Air Quality** – including:
 - an assessment of the likely air quality impacts of the development, including cumulative impacts from nearby developments, in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2016), and having regard to the NSW Government's *Voluntary Land Acquisition and Mitigation Policy*;
 - demonstrated 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*;
- identification of strategies to minimise point and/or fugitive and/or odour emissions/impacts (with proposed timing), including monitoring, in line with relevant guidance/standards
- an assessment of the likely greenhouse gas impacts of the development; and
- a description of the feasibility of measures that would be implemented to monitor and report on the emissions (including fugitive dust and greenhouse gases) of the development;
- **Biodiversity** – including:
 - an assessment of the biodiversity values and the likely biodiversity impacts of the development throughout its life, and impacts on biodiversity values in the region, in accordance with Section 7.9 of the *Biodiversity Conservation Act 2016* (NSW), the *Biodiversity Assessment Method* (BAM 2020) and documented in a Biodiversity Development Assessment Report (BDAR); and
 - 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 BAM;
- **Heritage** – including:
 - an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including adequate consultation with Aboriginal stakeholders having regard to the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010), and documented in an Aboriginal Cultural Heritage Assessment Report (ACHAR) including the significance of cultural heritage values for Aboriginal people who have a cultural association with the land;
 - include results of a surface survey (and test excavations, if required) undertaken by a qualified archaeologist to inform the need for targeted test excavation to better assess the integrity, extent, distribution, nature and overall significance of the archaeological record; and
 - demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes, including mitigation measures and procedures for accidental finds at any stage of the project; and
 - an assessment of the impact on historic heritage, including heritage conservation areas and State and local heritage items within and near the site;
- **Traffic and Transport** – including an assessment of:
 - the likely traffic and transport impacts of the development on the capacity, condition, safety and efficiency of the road and rail network and any cumulative impacts of other developments in the locality, documented in an Transport Assessment prepared in accordance with relevant guidelines and including a description of:
 - the site access routes and site access points in accordance with the *Roads Act 1993*; and
 - of measures, including upgrade works, that would be implemented to mitigate and / or manage potential traffic impacts developed in consultation with the relevant road authority;
- **Hazards and Risks** – including:
 - 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*;

- **Visual** – including an assessment of:
 - the likely visual and landscape impacts of the development on private land in the vicinity of the development, paying particular attention to any temporary and permanent modification of the landscape (e.g. overburden dumps, bunds, tailings facilities);
- **Waste Management** – including:
 - identification of all waste types that will be generated during construction and operation, their classification and the ways in which they can be legally handled, stored, transported, reused, recycled or disposed of, including sampling/monitoring, record keeping, waste tracking, contingency measures and any other verification practice, in accordance with relevant guidelines/standards;
 - assessment of how the project would comply with the EPA's *Sodium Cyanide Policy – Limits for gold mine tailings storage facilities* (EPA, 2012)
 - identify strategies for waste minimisation during construction and operation;
 - a tailings risk assessment based on the tailings composition and identification, quantification and classification of the potential waste streams likely to be generated during construction and operation, including and not limited to non-production wastes, reagent materials and cyanide compounds
 - description of onsite sewerage system construction/upgrade, implementation, performance and management measures including a supporting comment on how the system would service all sewage generated during the construction and operational periods; and
 - description of the measures to be implemented to store, manage, reuse, recycle and safely dispose of these materials including and not limited to operational water by-products, adequate spill detection and clean up systems, suitable locations for disposal or reuse of spoil generated during construction;
- **Closure, Rehabilitation and Final Landform** – including a Rehabilitation Strategy providing:
 - a detailed overview of the final land-use and final landform, rehabilitation objectives and closure criteria for the development, including the conceptual final landform design; and
 - identification and discussion of opportunities to improve rehabilitation and environmental outcomes for existing disturbed areas within the project site, and barriers or limitations to effective rehabilitation; and
- **Socio-Economic** – including an assessment of:
 - an assessment of the social impacts of the project, prepared in accordance with the Department's *Social Impact Assessment Guideline For State Significant Developments* (July 2021) (subject to transitional arrangements), including the likely impacts of the development on the local community, cumulative impacts (considering other mining

	<p>developments in the locality), and consideration of construction and operational workforce accommodation;</p> <ul style="list-style-type: none"> - an assessment of the likely economic impacts of the development, paying particular attention to: <ul style="list-style-type: none"> o the significance of the resource; o economic benefits of the project for the State and region; o the demand for the provision of local infrastructure and services; and <p>a Voluntary Planning Agreement in relation to the demand for the provision of local infrastructure and services.</p>
Plans and Documents	<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents.</p> <p>In addition, the EIS must include high quality files of maps and figures of the subject site and proposal.</p>
Consultation	<p>During the preparation of the EIS, you should consult with relevant local, State and Commonwealth Government authorities including infrastructure and service providers, the Hera Mine Community Consultative Committee, community groups, Registered Aboriginal Parties (RAPs), affected landowners, and holders of existing mining and exploration authorities.</p> <p>The EIS must describe the consultation process and the issues raised and identify where the design of the infrastructure has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>
Expiry Date	<p>If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, your SEARs will expire. If an extension to these SEARs will be required, please consult with the Planning Secretary 3 months prior to the expiry date.</p>
References	<p>The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this proposal.</p>

Attachment 1

Environmental Planning Instruments, Policies, Guidelines & Plans

Please also refer to the Department's Policies and Guidelines including strategic plans and guidelines at:

<https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines>

Land and Contamination

Australian Soil and Land Survey Handbook (CSIRO)

Guidelines for Surveying Soil and Land Resources (CSIRO)

Managing Urban Stormwater: Soils & Construction (Landcom)

Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW, 2010)

Contaminated Sites Sampling Design Guidelines 1995 (EPA)

Soil and Landscape Issues in Environmental Impact Assessment (DPI)

Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)

National Environment Protection (Assessment of Site Contamination) Measure 1999 (with amendment April 2013)

The land and soil capability assessment scheme: second approximation (OEH)

Water

Water Sharing
Plans

Relevant Water Sharing Plans

Groundwater

NSW State Groundwater Policy Framework Document and component policies (DPI)

NSW State Groundwater Quality Protection Policy (DPI)

NSW State Groundwater Quantity Management Policy (DPI)

NSW Aquifer Interference Policy 2012 (DPI)

Australian Groundwater Modelling Guidelines 2012 (Commonwealth)

National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)

Guidelines for the Assessment & Management of Groundwater Contamination

(EPA)

NSW State Rivers and Estuary Policy (DPI Water)

NSW Government Water Quality and River Flow Objectives at
<http://www.environment.nsw.gov.au/ieo/>

Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC, 2006)

National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)

National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)

National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC)

Surface Water

National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC)

Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA)

Managing Urban Stormwater: Soils & Construction (Landcom) and associated Volume 2E: Mines and Quarries (DECC)

Managing Urban Stormwater: Treatment Techniques (EPA)

Managing Urban Stormwater: Source Control (EPA)

Technical Guidelines: Bunding & Spill Management (EPA)

A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)

NSW Guidelines for Controlled Activities (NOW)

Flooding

Floodplain Development Manual (OEH)

Floodplain Risk Management Guideline (OEH)

Biodiversity

Biodiversity Assessment Method (OEH)

Threatened Species Assessment Survey and Guidelines (various - OEH)

Biosecurity Act 2015

Policy and Guidelines for Fish Habitat Conservation and Management (DPI)

NSW State Groundwater Dependent Ecosystem Policy (DPI Water)

Risk Assessment Guidelines for Groundwater Dependent Ecosystems (DPI Water)

NSW Biodiversity Offsets Policy for Major Projects, Fact Sheet: Aquatic

Biodiversity

Heritage

The Burra Charter (The Australia ICOMOS charter for places of cultural significance)

Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW)

Code of Practice for Archaeological Investigations of Objects in NSW (DECCW)

Guide to investigating, assessing and reporting on aboriginal cultural heritage in NSW (OEH)

Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (DECCW)

Assessing Heritage Significance (NSW Heritage Office, 2001)

Statements of Heritage Impact (Heritage Office and Department of Urban Affairs and Planning, 2002)

NSW Heritage Manual (OEH)

Noise, Vibration and Blasting

Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments (DPE)

NSW Noise Policy for Industry (EPA)

Interim Construction Noise Guideline (EPA) or Construction Noise Guideline (EPA) – currently draft only – application subject to any transitional arrangements

NSW Road Noise Policy (EPA)

Environmental Noise Management – Assessing Vibration: a Technical Guideline (DEC)

Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (ANZECC)

Air Quality

Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments (DPE)

Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016)

Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC)

National Greenhouse Accounts Factors (Commonwealth)

Lighting and Visual

AS4282-1997 Control of the obtrusive effects of outdoor lighting

Dark Sky Planning Guideline: Protecting the observing conditions at Siding Spring (DPE)

Transport

Guide to Traffic Generating Developments (RTA)

Road Design Guide (RMS) & relevant Austroads Standards

Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development and RMS Supplements to Austroads

Hazards and Risks

Australian Dangerous Goods Code

Australian Standard 4452 Storage and Handling of Toxic Substances

Hazardous and Offensive Development Application Guidelines – Applying SEPP 33

Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis

Multi-level Risk Assessment (DPI, 2011)

Socio-Economic

Social Impact Assessment Guideline: For State Significant Mining, Petroleum Production and Extractive Industry Development (DPE) or SIA new guidelines issued by the Department of Planning, Industry and Environment and applied subject to transitional arrangements.

Resource

Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC)

Waste

Waste Classification Guidelines (EPA)

Protection of the Environment Operations (Waste) Regulation 2014

Environmental Guidelines: Solid Waste Landfills (EPA)

Tailings Management – Leading Practice Sustainable Development Program for the Mining Industry (Australian Government)

Rehabilitation

Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)

Mine Closure and Completion – Leading Practice Sustainable Development

Program for the Mining Industry (Commonwealth)

Strategic Framework for Mine Closure (ANZMEC-MCA)

Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)

Integrated Mine Closure: Good Practice Guide (ICMM, 2019)

Guidelines on Tailings Dams – Planning, Design, Construction, Operation and Closure – Revision 1 (ANCOLD, July 2019)

Environmental Planning Instruments

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

State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Rural Lands) 2008

State Environmental Planning Policy No. 44 – Koala Habitat Protection

State Environmental Planning Policy No. 55 – Remediation of Land

State Environmental Planning Policy No 33 – Hazardous and Offensive Development

Cobar Local Environmental Plan 2012
