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 10426
Proposal	Broken Hill Cobalt Project, which includes: • developing an open cut mine and associated infrastructure, including ore processing, stockpiling, tailings management and on-site water management facilities; • extracting and processing up to 100 million tonnes of ore for up to 20 years; • construction and operation of a rail siding and associated infrastructure adjacent to the Broken Hill rail line; • developing power and water supply infrastructure adjacent to the railway line between the site and Broken Hill; • transporting processed ore from the mine via rail to Port Adelaide for export or domestic use; and • progressively rehabilitating the site.
Location	Approximately 25 kilometres south west of Broken Hill, within the Unincorporated Area of NSW and City of Broken Hill local government area
Applicant	Broken Hill Cobalt Project Pty Ltd
Date of Issue	25 January 2022
General Requirements	The Environmental Impact Statement (EIS) for the development must comply with the requirements in Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (the Regulation) and must have regard to the *State Significant Development Guidelines*. Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. In particular, the EIS must include, but not necessarily be limited to, the following: • a stand-alone executive summary; • a full description of the development, including: - regional geology including a supporting map, the resource to be extracted, demonstrating efficient resource recovery within environmental constraints; - details of ore and waste mineralogy, including mineralogy and deleterious elements and evidence of geological and grade (or quality) continuity of mineralisation 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 development 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); 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 development components;

- existing infrastructure, land use, and environmental features in the vicinity of the development (including any other existing, approved or proposed infrastructure in the region); and
- key environmental constraints that have been considered in the design of the development;

- 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 development that is the subject of a separate approval process;
- a strategic justification for the development;
- details of the approvals that must be obtained before the development may commence;
- the 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 consideration of the potential cumulative impacts due to other developments in the vicinity (completed, underway or proposed), 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, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment, 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 development; and
  - the biophysical, economic and social costs and benefits of the development; and
- 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 surveyor providing a detailed calculation of the capital investment value (CIV) of the proposal (as defined in clause 3 of the Regulation and detailed in Planning circular PS 21-020 dated 2 December 2021), including details of all assumptions and components from which the CIV calculation is derived. The report must be prepared on company letterhead and indicate applicable GST component of the CIV and include certification that the information provided is accurate at the date of preparation; and • an estimate of jobs that will be created during the construction and operational phases of the proposed infrastructure; and
Specific Issues	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 development location and the surrounding environment and having regard to applicable NSW Government policies and guidelines. • **Land and Soil**– including an assessment of: - 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; - the likely agricultural impacts of the development, including biosecurity risks, rangeland environment and consideration of the impact on pastoral holdings; - 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 *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007,* paying particular attention to the agricultural land use in the region; and - consideration of potential land contamination consistent with the requirements of State Environmental Planning Policy 55 – Remediation of Land; • **Air Quality and Human Health** – including: - an assessment of the likely air quality impacts of the development, including cumulative impacts from nearby developments, in accordance with the *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* 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*; - an assessment of the likely greenhouse gas impacts of the development; - a review of available best practice greenhouse gas emissions reduction measures available to the development for Scope 1 and Scope 2 emissions; - details of proposed greenhouse gas emissions avoidance, mitigation and/or offset measures for Scope 1 and Scope 2 emissions; - 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; and - a Human Health Risk Assessment, addressing how the development's environmental impacts in relation to air quality (including cobalt dust) may impact on public health, including monitoring and management measure to avoid/reduce the public health impacts;

- **Water** – including:
  - an assessment of the likely impacts of the development on the quantity and quality of the region's surface and groundwater resources, having regard to the *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, basic landholder rights and other water users;
  - a detailed site water balance, including a description of site water demands, water disposal methods (including the location, volume and frequency of any water discharges and management of discharge water quality), water supply and transfer infrastructure and water storage structures, including an assessment of the reliability of water supply, including consideration of a range of climatic conditions and climate change projections;
  - identification of an adequate and secure authorised water supply for the life of the project and any licensing requirements or other approvals under the *Water Act 1912* and/or *Water Management Act 2000*, including a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant water sharing plan or water source embargo, or any alternative mechanisms agreed following consultation with relevant NSW government agencies/ statutory authorities;
  - a detailed description of the proposed water management system (including sewage), water diversions, water monitoring program and measures to mitigate surface and groundwater impacts;
  - a description of construction erosion and sediment controls, how the impacts of the development on areas of erosion, salinity and/or acid-sulphate risk, steep gradient land or erodible soils types would be managed and any contingency requirements to address residual impacts; and
  - an assessment of the potential flooding impacts of the development;
- **Noise, Vibration and Blasting** – including an assessment of:
  - the likely construction, operational and off-site noise impacts of the development, and cumulative noise impacts (considering other mining developments in the locality), in accordance with the *Interim Construction Noise Guideline (*or as updated subject to transitional arrangements), *NSW Noise Policy for Industry*, *NSW Road Noise Policy and Rail Infrastructure Noise Guideline* (as applicable), and the *Voluntary Land Acquisition and Mitigation Policy*; and
  - the likely blasting impacts of the development on people, animals, buildings and infrastructure, and significant natural features, having regard to the relevant ANZECC guidelines;
- **Biodiversity** – including:
  - an assessment of the biodiversity values and the likely biodiversity impacts of the development throughout its life, and cumulative biodiversity impacts, in accordance with the *Biodiversity Conservation Act 2016 (NSW)*, and the *Biodiversity Assessment Method* (BAM 2020), and documented in a Biodiversity Development Assessment Report (BDAR);
  - the BDAR must document the application of the avoid, minimise, offset and reporting framework including assessing all direct, indirect and prescribed impacts of the development over time in accordance with the BAM; and
  - a strategy to offset any residual impacts of the development in accordance with the *Biodiversity Conservation Act 2016* (NSW);
- **Heritage** – including:
  - an assessment of the likely Aboriginal (cultural and archaeological)

impacts of the development, including adequate consultation with the local Aboriginal community 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;
- 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;
- 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 environmental/historic heritage in accordance with the NSW Heritage Manual, including heritage conservation areas and Commonwealth, State and local heritage items within and near the site, and detailed mitigation measures to manage potential impacts on heritage values;

- **Traffic and Transport** – including:
  - details of traffic types and volumes likely to be generated by the development;
  - an assessment of the likely traffic and transport impacts of the development on the capacity, condition, safety and efficiency of the road network (including Barrier Highway), and cumulative impacts (considering other mining developments in the locality); and
  - a description of the measures that would be implemented to mitigate and/or manage any impacts, including any proposed road and rail upgrades, road and rail maintenance contributions, and other traffic control measures developed in consultation with the relevant road and rail authorities;
- **Waste**– including:
  - estimates of the quantity and nature of the waste streams that would be generated by the development during construction and operation (including tailings and waste rock), 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;
  - any measures that would be implemented to minimise, manage or dispose of the waste streams;
  - a tailings risk assessment, detailing life of mine tailings management strategy and 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 leaching into groundwater and discharges into nearby drainage lines (e.g. Felspar and Pine Creeks) and downstream, non-production wastes, reagent materials and potentially acid forming (PAF) waste; and
  - description of the measures to be implemented to store, manage, reuse, recycle and safely dispose of these materials in accordance with the *Protection of the Environment Operations (Waste) Regulation 2014*, 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;
- **Hazards** - including a Preliminary Hazard Analysis (PHA), covering an assessment of the likely risks to public safety, paying particular attention to potential geochemical risks, and the handling, transport and use of any dangerous goods, and in accordance with *State Environmental Planning*

	Policy No. 33 – Hazardous and Offensive Development; • **Visual** – including an assessment of the likely visual impacts of the development on private landowners in the vicinity of the development and key vantage points in the public domain, paying particular attention to any temporary and permanent modification of the landscape (overburden dumps, bunds, etc.), cumulative impacts (considering other mining developments in the locality), and minimising the lighting impacts of the development; • **Closure, Rehabilitation and Final Landform** – including: - a detailed overview of the final land-use for the development, including the mine site and ancillary infrastructure; - a description of final landform for the development, including the conceptual final landform design, having regard to achieving a natural landform that is safe, stable, non-polluting, fit for the nominated post-mining lands use and sympathetic with surrounding landforms; - a strategy to minimise the size of the final void (and its catchment); - a strategy for an integrated waste landform for managing waste rock and tailings; and - the proposed rehabilitation and mine closure strategies for the site having regard to the key principles in the Strategic Framework for Mine Closure, including rehabilitation objectives and closure criteria, methodology, monitoring programs, performance standards and proposed completion criteria; and • **Socio-Economic** – including: - an assessment of the social impacts of the development, prepared in accordance with the *Social Impact Assessment Guideline (2021)*, including impacts of the development on the local community, cumulative impacts (considering other mining developments in the locality), and consideration of workforce accommodation; and - an assessment of the likely economic impacts of the development, paying particular attention to: o the significance of the resource; o the costs and benefits of the development; identifying whether the development as a whole would result in a net benefit to NSW and region, including consideration of fluctuation in commodity markets and exchange rates; o the demand for the provision of local infrastructure and services; and o the need for a Voluntary Planning Agreement in relation to the demand for the provision of local infrastructure and services.
Plans and Documents	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. In addition, the EIS must include high quality files of maps and figures of the subject site and proposal.

Engagement	During the preparation of the EIS, you should consult with relevant local, State or Commonwealth Government authorities, infrastructure and service providers, community groups, Registered Aboriginal Parties (RAPs), affected landowners, and holders of existing mining and exploration authorities. 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. The EIS must detail the engagement undertaken and demonstrate how it was consistent with the Undertaking Engagement Guide: Guidance for State Significant Projects. The EIS must detail how issues raised and feedback provided have been considered and responded to in the development.
Expiry Date	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.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, **Attachment 1** contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this proposal. In the event of any guidelines being updated, the latest version must be applied, subject to any transitional arrangements and subject to timing of lodgement of the EIS.

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	
	Primefact 1063: Infrastructure proposals on rural land (DPI)
	Australian Soil and Land Survey Handbook (CSIRO)
	Australian Soil and Land Survey Handbook (CSIRO)
	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)
	Guidelines for Surveying Soil and Land Resources (CSIRO)
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
	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 (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)
Surface Water	NSW State Rivers and Estuary Policy (DPI)
	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)
	ANZECC Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	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 – 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 Volumes 2A to 2E (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 on Waterfront Land (NRAR)
Flooding	Floodplain Development Manual (OEH)
	Floodplain Risk Management Guideline (OEH)
Biodiversity	
	Biodiversity Conservation Act 2016
	Biodiversity Assessment Method (DPIE)
	Biosecurity Act 2015
	NSW State Groundwater Dependent Ecosystem Policy (NOW)
	Risk Assessment Guidelines for Groundwater Dependent Ecosystems (DPI)
	Policy and Guidelines for Fish Habitat Conservation and Management (DPI)
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 (OEH)
	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 (NSW Government 2018)
	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)
	Rail Infrastructure Noise Guideline (EPA)
	Environmental Noise Management – Assessing Vibration: a technical guide (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 (NSW Government 2018)
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC)
	National Greenhouse Accounts Factors (Commonwealth)
	NSW Climate Change Policy Framework
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
Socio-Economic	
	Social Impact Assessment Guideline (DPIE 2021)
Hazards	
	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)
Waste	
	Waste Classification Guidelines (EPA)
	Protection of the Environment Operations (Waste) Regulation 2014
	Environmental Guidelines: Solid Waste Landfills (EPA 2016)
	Tailings Management – Leading Practice Sustainable Development Program for the Mining Industry (Australian Government 2016)
Resource	
	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC)
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)
	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 (Primary Production and Rural Development) 2019
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	State Environmental Planning Policy No. 55 – Remediation of Land
	Broken Hill Local Environmental Plan 2013