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-5537
Project	The Hawsons Iron Ore Project, which includes: · developing an open cut magnetite mine and associated infrastructure to support the mine, including a slurry pipeline, electricity transmission line and substation, water supply borefield and pipeline, access roads, ore processing plant, tailings storage facility, rail siding (and associated filter and pellet plant), solar farm (optional) and on-site water management infrastructure; · extracting and processing up to 85 million tonnes (Mt) of ore a year to produce up to 12 Mt of magnetite concentrate a year for up to 20 years; · transporting concentrate to the Broken Hill Railway Line (south-west of Broken Hill) via a slurry pipeline for further processing, and then to ports in South Australia via rail; and · progressively rehabilitating the site.
Location	· Mine site - approximately 60 km south-west of Broken Hill, within the Unincorporated Far West Region. · Ancillary infrastructure within the Unincorporated Far West Region, with the rail siding and associated filter and pellet plant located in Broken Hill. · Borefield site – approximately 80-115 km south-south-east of the mine site, predominantly within the Wentworth Shire local government area.
Applicant	Carpenteria Resources Ltd
Date of Issue	07/02/2020
General Requirements	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 *Environmental Planning and Assessment Regulation 2000* (the Regulation). The EIS must include: · a stand-alone executive summary; · a full description of the development, including: - the geological setting and resource to be extracted (size and quality), demonstrating efficient resource recovery within environmental constraints; - the mine and processing site layout and scheduling; - minerals processing and transport arrangements; - surface infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process); - workforce requirements during all phases of the development (on a full-time equivalent basis); - surface disturbance footprint; - a waste (overburden, tailings, etc.) management strategy; - a water management strategy; - a rehabilitation strategy; and - the likely interactions between the development and any other existing, approved or proposed mining related development in the vicinity of the site, including any required upgrade to the existing 220 kV transmission line; · a strategic justification of the development focusing on site selection and the suitability of the proposed site;

	· a list of any approvals that must be obtained before the development may commence; · an environmental risk assessment to identify the potential environmental impacts associated with the development, including: - a description of the existing environment likely to be affected by the development, using adequate baseline data; - an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration 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, mitigate and/or offset the impacts of the development, and an assessment of: o whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation measures that could be implemented; o the likely effectiveness of these measures; and o whether contingency plans would be necessary to manage any significant risks to the environment; and - a description of the measures that would be implemented to monitor and report on the environmental performance of the development; · a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; · consideration of the development against all relevant environmental planning instruments (including Part 3 of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007)*; · a conclusion evaluating the merits of the development as a whole, having regard to the requirements in Section 4.15 of the *Environmental Planning and Assessment Act 1979*; and · a signed statement from the author of the EIS, certifying that the information contained within the document is neither false nor misleading. In addition to the matters set out in Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*, the development application must be accompanied by a signed report from a suitably qualified and independent person that includes an accurate estimate of the capital investment value of the development (as defined in Clause 3 of the *Environmental Planning and Assessment Regulation 2000*), including details of all the assumptions and components from which the capital investment value calculation is derived.
Key issues	The EIS must address the following specific matters: · **Land Resources** – including an assessment of: - the likely impacts of the development on the soils and land capability of the site and surrounds; - 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 *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*; · **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 likely impacts of the development on aquifers, watercourses, riparian land, water-related infrastructure, 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 arrangements (including pipelines and water storage structures) for construction and operations, including:
  - an assessment of the reliability of water supply, including consideration of climate change; and
  - demonstration that water can be obtained from an appropriately authorised supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP);
- identification of 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 WSP or water source embargo;
- a detailed description of the proposed water management system (including sewerage), water monitoring program and other measures to mitigate surface and groundwater impacts (including spill/leak management);
- a description of construction erosion and sediment controls, how the impacts of the development on areas of erosion, salinity 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 project;

· **Biodiversity** – including:
- an assessment of the likely biodiversity impacts of the development in accordance with the *Biodiversity Assessment Method* (BAM) and documented in a Biodiversity Development Assessment Report (BDAR);
- a strategy to offset any residual impacts in accordance with the *Biodiversity Conservation Act 2016*; and
- an assessment of the likely impacts of the development on aquatic ecology, including aquatic biodiversity and key fish habitats.

· **Heritage** – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including consultation with Aboriginal stakeholders in accordance with *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (OEH 2010);

· **Air Quality** – including an assessment of:
- the likely air quality impacts of the development 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*; and
- the likely greenhouse gas impacts of the development;

· **Noise, Vibration and Blasting** – including an assessment of:
- the likely construction, operational and off-site noise impacts of the development in accordance with the *Interim Construction Noise Guideline, NSW Noise Policy for Industry*, *NSW Road Noise Policy* and *Rail Infrastructure Noise Guideline* (as applicable), and having regard to the *Voluntary Land Acquisition and Mitigation Policy*; and
- the likely blasting and vibration impacts of the development on people, animals, buildings and infrastructure, and significant natural features, having regard to the relevant ANZECC guidelines;

· **Transport** – including:
- an assessment of the likely transport impacts of the development on the

	capacity, condition, safety and efficiency of road and rail networks; - an assessment of the site access routes and access points in accordance with the *Roads Act 1993;* and - a description of the measures that would be implemented to mitigate any impacts, including any proposed upgrades developed in consultation with the relevant road and rail authorities (if required). · **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 design objectives, 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), the tailings storage facility, and the waste rock emplacement area, such as opportunities for integrated management of 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, methodology, monitoring programs, performance standards and proposed completion criteria; · **Hazards** – including an assessment of the likely risks to public safety, paying particular attention to potential bushfire risks, geochemical risks, tailings storage facility dam safety risks, and the handling, transport and use of any dangerous goods, in accordance with *State Environmental Planning Policy No. 33 - Hazardous and Offensive Development* and requirements under the *Dams Safety Act 2015*. · **Waste** – including estimates of the quantity and nature of the waste streams that would be generated by the development (including tailings, brine and waste rock) and any measures that would be implemented to minimise, manage or dispose of the waste streams; · **Visual** – including an assessment of: - the likely visual impacts of the development (before, during and post-mining) 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 (tailings storage facilities, overburden dumps, bunds, etc.); and - the lighting impacts of the development; · **Social and economic** – including: - an assessment of the anticipated social impacts of the project, prepared in accordance with the *Social Impact Assessment Guidelines for State Significant Mining, Petroleum Production and Extractive Industry Development (2017*), including the likely 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 costs and benefits of the development; identifying whether the development as a whole would result in a net benefit to NSW, including consideration of fluctuation in commodity markets and exchange rates; and o the demand on local infrastructure and services.
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities including Broken Hill City and Wentworth Shire councils, infrastructure and service providers, community groups and affected landowners.

	The EIS must describe the consultation process that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.
Further consultation after 2 years	If you do not lodge a development application and EIS for the development within 2 years of the issue date of these Environmental Assessment Requirements, you must consult further with the Planning Secretary in relation to the preparation of the EIS.
References	The assessment of the key issues listed above must take into account relevant planning instruments, 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.

ATTACHMENT 1

Technical and Policy Guidelines

The following guidelines may assist in the preparation of the environmental impact statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:

- http://www.planning.nsw.gov.au
- http://www.shop.nsw.gov.au/index.jsp
- http://www.australia.gov.au/publications
- http://www.epa.nsw.gov.au/
- http://www.environment.nsw.gov.au/
- http://www.dpi.nsw.gov.au/

Environmental Planning Instruments, Policies, Guidelines & Plans

Land	
	Strategic Regional Land Use Policy: Guideline for Agricultural Impact Statements 2012 (DP&I)
	Agfact AC25: Agricultural Land Classification (NSW Agriculture)
	Primefact 1063: Infrastructure proposals on rural land (DPI)
	Soil and Landscape Issues in Environmental Impact Assessment (NOW)
	Australian Soil and Land Survey Handbook (CSIRO)
	Guidelines for Surveying Soil and Land Resources (CSIRO)
	The land and soil capability assessment scheme: second approximation (OEH)
	Interim Protocol for Site Verification & Mapping of Biophysical Strategic Land (OEH)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
	Land Use Conflict Risk Assessment Guide (DPI)
Water	
Water Sharing Plans	NSW Murray Darling Basin Porous Rock Groundwater Sources 2012
	Lower Murray Darling Unregulated and Alluvial Water Sources 2012
Groundwater	NSW State Groundwater Policy Framework Document (NOW)
	NSW State Groundwater Quality Protection Policy (NOW)
	NSW State Groundwater Quantity Management Policy (NOW)
	NSW Aquifer Interference Policy 2012 (NOW)
	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)

	Murray-Darling Basin Groundwater Quality. Sampling Guidelines. Technical Report No 3 (MDBC)
	Murray-Darling Basin Commission. Groundwater Flow Modelling Guideline (Aquaterra Consulting Pty Ltd)
Surface Water	NSW State Rivers and Estuary Policy (NOW)
	NSW Government Water Quality and River Flow Objectives (EPA)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (EPA)
	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC)
	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)
	Environmental Guidelines: Use of Effluent by Irrigation (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)
	Fisheries NSW policies and guidelines
	Guidance to assist a decision-maker to determine a serious and irreversible impact (OEH)
	NSW State Groundwater Dependent Ecosystem Policy (NOW)
	Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW)
	Policy and Guidelines for Fish Habitat Conservation and Management (DPI Fisheries)
Heritage	
	Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH)
	Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH)
	Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH).
	NSW Heritage Manual (OEH)
	Assessing Significance for Historical Archaeological Sites and Relics 2009 (OEH)
	Statements of Heritage Impact (OEH)
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
	Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (DECCW)

Air Quality	
	Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments (DPE)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA)
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	National Greenhouse Accounts Factors (Commonwealth)
Noise, Vibration & 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)
	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)
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
	Future Transport Strategy 2056 and supporting plans
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
	Planning for Bush Fire Protection 2006 (RFS)
Social and economic	
	Guidelines for the economic assessment of mining and coal seam gas proposals 2015 (NSW Government)
	Social impact assessment guideline for State significant mining, petroleum production and extractive industry development 2017 (DP&E)
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)
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)
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 (Koala Habitat Protection) 2019
	State Environmental Planning Policy No. 55 – Remediation of Land
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Broken Hill Local Environment Plan 2013
	Wentworth Shire Local Environment Plan 2011