

Environmental Assessment Requirements

State Significant Development

Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*

Application Number	SSD 6509
Proposal	<p>The Spur Hill Underground Coal Project, which includes:</p> <ul style="list-style-type: none">• developing a new underground coal mine to extract up to 8 million tonnes of run-of-mine coal a year for up to 25 years;• developing a range of associated infrastructure to support the mining operations;• exporting coal from the site by rail; and• progressively rehabilitating the site.
Location	Approximately 20 kilometres southwest of Muswellbrook
Applicant	Spur Hill Management Pty Ltd
Date of Issue	21 December 2016
General Requirements	<p>The Environmental Impact Statement (EIS) for the development must comply with the requirements in:</p> <ul style="list-style-type: none">• Clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>; and• The NSW Mining & Petroleum Gateway Panel's Conditional Gateway Certificate. <p>In particular, the EIS must include:</p> <ul style="list-style-type: none">• an executive summary;• a full description of the development, including:<ul style="list-style-type: none">– the resource to be extracted, demonstrating efficient resource recovery within environmental constraints;– the mine layout and scheduling;– minerals processing;– surface infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process);– a waste (overburden, rejects, tailings, etc.) management strategy having regard to the EPA's requirements (see Attachment 2);– a water management strategy, having regard to the EPA's, DPI Water's and the Commonwealth Department of the Environment's requirements (see Attachment 2); the NSW Mining & Petroleum Gateway Panel's Conditional Gateway Certificate (see Attachment 3); and the Independent Expert Scientific Committee's advice (see Attachment 4);– a rehabilitation strategy, having regard to DRE's requirements (see Attachment 2); and– the likely interactions between the development and any other existing, approved or proposed mining development in the vicinity of the site;• a list of any approvals that must be obtained before the development may commence;• an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including:<ul style="list-style-type: none">– 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 worst case scenarios and consideration of any cumulative impacts, taking into consideration any relevant laws, environmental

	<p>planning instruments, guidelines, policies, plans and industry codes of practice;</p> <ul style="list-style-type: none"> – a description of the measures that would be implemented to avoid, minimise, mitigate and/or offset the likely impacts of the development, and an assessment of: <ul style="list-style-type: none"> ○ 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 measures (including Trigger Action Response Plans) would be necessary to manage any residual risks; – a description of the measures that would be implemented to monitor and report on the environmental performance of the development if it is approved; <ul style="list-style-type: none"> • 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 <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>); • the reasons why the development should be approved, taking into consideration: <ul style="list-style-type: none"> – alternatives (including why the proposed development is preferred over other alternatives, such as alternative locations for the surface infrastructure or different layouts of the longwall panels); – the suitability of the site; – the economic, social and environmental impacts of the development as a whole; and – whether the development is consistent with the objects of the <i>Environmental Planning and Assessment Act 1979</i>; and. • a signed statement from the author of the EIS, certifying that the information contained within the document is neither false nor misleading. <p>While not exhaustive, Attachment 1 contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of this development.</p> <p>In addition to the matters set out in Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>, the development application must be accompanied by a signed report from a suitably qualified and experienced person that includes an accurate estimate of the:</p> <ul style="list-style-type: none"> • capital investment value (as defined in Clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the development, including details of all the assumptions and components from which the capital investment value calculation is derived; and • jobs that would be created during each stage of the development.
<p>Specific Issues</p>	<p>The EIS must address the following specific issues:</p> <ul style="list-style-type: none"> • Subsidence – including an assessment of the likely conventional and non-conventional subsidence effects and impacts of the development, and the potential consequences of these effects and impacts on the natural and built environment, paying particular attention to those features that are considered to have significant economic, social, cultural or environmental value, and having regard to the DRE's and RMS's requirements (see Attachment 2); the NSW Mining & Petroleum Gateway Panel's Conditional Gateway Certificate (see Attachment 3); and the Independent Expert Scientific Committee's advice (see Attachment 4); • Land – including:

- an assessment of the likely impacts of the development on the soils and land capability of the site and surrounds, paying particular attention to any Biophysical Strategic Agricultural Land (BSAL), and having regard to the EPA's, DRE's and DPI's requirements (see Attachment 2) and the NSW Mining & Petroleum Gateway Panel's Conditional Gateway Certificate (see Attachment 3);
- an assessment of the likely impacts of the development on any nearby Upper Hunter Equine or Viticulture Critical Industry Cluster land uses, having regard to DPI's requirements (see Attachment 2) and the NSW Mining & Petroleum Gateway Panel's Conditional Gateway Certificate (see Attachment 3);
- an assessment of the likely agricultural impacts of the development, including any long term changes to the agricultural productivity of land post-mining;
- an assessment of the likely impact of the development on landforms (topography), including:
 - o the potential subsidence impacts on cliffs, rock formations and steep slopes; and
 - o the long term geotechnical stability of any new landforms;
- an assessment of 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, viticultural and equine industry land uses in the region;
- **Water** – including:
 - an assessment of the likely impacts of the development on the quantity and quality of the region's surface and groundwater resources (including post mining), having regard to the EPA's, DPI Water's, and Commonwealth Department of the Environment's requirements (see Attachment 2); the NSW Mining & Petroleum Gateway Panel's Conditional Gateway Certificate (see Attachment 3); and the Independent Expert Scientific Committee's advice (see Attachment 4);
 - an assessment of the likely impacts of the development on aquifers, watercourses, riparian land, water-related infrastructure, and other water users, having regard to the requirements of DPI Water (see Attachment 2); and
 - an assessment of the likely flooding impacts of the development;
 - identification of any licensing requirements or other approvals under the *Water Act 1912* and/or *Water Management Act 2000*;
 - a strategy to avoid, mitigate, manage and monitor water quality impacts of the development (including during construction, operation and post mining);
 - a detailed description of the proposed water management system (including sewerage), water balance, water monitoring program and measures to mitigate surface and groundwater impacts; and
 - a description of how the development would be operated to meet the requirements of any relevant WSP or water source embargo;
- **Biodiversity** – including:
 - an assessment of the likely biodiversity impacts of the development, in accordance with either the *Upper Hunter Strategic Assessment* or the *Framework for Biodiversity Assessment*, and having regard to the OEHS and Commonwealth Department of the Environment's requirements (see Attachment 2);
 - a description of the measures that would be implemented to avoid, minimise, manage and/or mitigate impacts to biodiversity; and
 - a strategy to offset any residual biodiversity impacts of the development;
- **Heritage** – including:
 - an assessment of the likely impacts of the development on Aboriginal heritage (cultural and archaeological), including consideration of the significance of these objects or declared places to Aboriginal people

and having regard to the OEH's requirements (see Attachment 2); and

- an assessment of the likely impacts of the development on non-Aboriginal heritage, paying particular attention to the area's settlement by Europeans and pastoral history, and having regard to the Heritage Council's requirements (see Attachment 2);
- **Noise** – including:
 - an assessment of the likely operational noise impacts of the development under the *NSW Industrial Noise Policy*, and having regard to the NSW Government's *Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments* and the EPA's requirements (see Attachment 2);
 - justification for any specific construction noise criteria for certain activities and an accompanying assessment of the likely construction noise impacts of these activities under the *Interim Construction Noise Guideline*;
 - an assessment of the likely road noise impacts of the development under the *NSW Road Noise Policy*; and
 - an assessment of the likely rail noise impacts of the development under the *Rail Infrastructure Noise Guideline*;
- **Air** – 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: For State Significant Mining, Petroleum and Extractive Industry Developments* and the EPA's requirements (see Attachment 2); and
 - an assessment of the likely greenhouse gas impacts of the development, having regard to the EPA's requirements (see Attachment 2);
- **Transport** – including:
 - a detailed investigation of the potential options for securing access to the NSW rail network, including the potential to share infrastructure with other mines in the region, and the relative costs and benefits of each of these options; and
 - an assessment of the likely transport impacts of the development on the capacity, condition, safety and efficiency of the local and State road and rail network, having regard to Transport NSW's, the RMS's and Muswellbrook Shire Council's requirements (see Attachment 2);
- **Rehabilitation and Final Landform** – including
 - an assessment of the likely impacts of the development on existing landforms and topography, including justification of the final landform design and its long term geotechnical stability;
 - a detailed description of the progressive rehabilitation measures that would be implemented for the development and how this rehabilitation would integrate with the final landform of the mine;
 - a detailed description of the proposed rehabilitation and mine closure strategies for the development, including rehabilitation objectives, performance standards and completion criteria;
 - decommissioning and management of surface infrastructure; and
 - nominated final land uses, having regard to any relevant strategic land use planning or resource management plans or policies.
- **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 the creation of any new landforms and the minimisation of dust and lighting impacts;
- **Waste** – including estimates of the quantity and nature of the waste streams that would be generated by the development (including tailings and coarse rejects) and any measures that would be implemented to minimise, manage or dispose of these waste streams;

	<ul style="list-style-type: none"> • Public Safety – including an assessment of the likely risks to public safety, paying particular attention to potential subsidence risks, bushfire risks, and the handling and use of any dangerous goods; and • Social & Economic – including: <ul style="list-style-type: none"> - an assessment of the likely social impacts of the development, paying particular attention to any impacts on the Upper Hunter Equine and Viticulture Critical Industry Clusters and associated tourism industry; and - an assessment of the likely economic impacts of the development, paying particular attention to: <ul style="list-style-type: none"> ○ the significance of the resource; ○ the costs and benefits of the development, including whether the development as a whole would provide net economic benefits for the State and region; and ○ the demand for the provision of local infrastructure and services, having regard to Muswellbrook Shire Council's requirements (see Attachment 2).
Consultation	<p>During the preparation of the EIS, you must consult with relevant local, State or Commonwealth Government authorities, infrastructure and service providers, community groups and affected landowners.</p> <p>The EIS must describe the consultation that was carried out, identify the issues raised during this consultation, and explain how these issues have been addressed in the EIS.</p>

ATTACHMENT 1

Environmental Planning Instruments, Policies, Guidelines & Plans

Land	
	Upper Hunter Strategic Regional Land Use Plan (DP&E)
	Guideline for Agricultural Impact Statements (DP&E)
	Agricultural Impact Statement: Technical Notes (DPI)
	Agfact AC25: Agricultural Land Classification (NSW Agriculture)
	Interim Protocol for Site Verification & Mapping of Biophysical Strategic Land (OEH)
	Soil and Landscape Issues in Environmental Impact Assessment (NOW)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
Water	
Water Sharing Plans	Hunter Unregulated and Alluvial Water Sources 2009
	Hunter Regulated River Water Source 2003
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)
	Groundwater Monitoring and Modelling Plans – Information for prospective mining and petroleum exploration activities (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)
Surface Water	Hunter River Salinity Trading Scheme (EPA)
	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)
	NSW Water Conservation Strategy (2000)
	State Water Management Outcomes Plan
	NSW State Rivers and Estuary Policy (1993)
	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	
	Framework for Biodiversity Assessment (OEH)
	NSW Biodiversity Offset Policy for Major Projects (OEH)
	Biodiversity Certification Assessment Methodology (OEH)
	Upper Hunter Strategic Assessment – Interim Policy (DP&E)
	Guidelines for Threatened Species Assessment (DP&E)
	Environmental Offsets Policy (Commonwealth DoE)
	NSW State Groundwater Dependent Ecosystem Policy (NOW)
	Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW)
	State Environmental Planning Policy No. 44 – Koala Habitat Protection
Heritage	
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
	Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DP&E)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (OEH)
	Code of Practice for Archaeological Investigations of Objects in NSW (OEH)
	Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (OEH)
	NSW Heritage Manual (OEH)
	Statements of Heritage Impact (OEH)
	Hunter Regional Environmental Plan 1989 (Heritage)
Noise and Blasting	
	NSW Industrial Noise Policy (EPA)
	Interim Construction Noise Guideline (EPA)
	NSW Road Noise Policy (EPA)
	Rail Infrastructure Noise Guideline (EPA)
	Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC)
	Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E)
Air	
	Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA)
	Coal Mine Particulate Matter Control Best Practice – Site Specific Determination Guideline (EPA)
	Generic Guidance and Optimum Model Settings for the CALPUFF Modelling System for Inclusion in the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	National Greenhouse Accounts Factors (Commonwealth)
	Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E)
Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RMS) & relevant Austroads Standards
Public Safety	

	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Hazardous and Offensive Development Application Guidelines – Applying SEPP 33
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
Resource	
	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC)
Waste	
	Waste Classification Guidelines (DECC)
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 - General	
	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
	Muswellbrook Local Environment Plan 2009

ATTACHMENT 2

AGENCIES' CORRESPONDENCE

ATTACHMENT 3

**MINING & PETROLEUM GATEWAY PANEL'S CONDITIONAL GATEWAY CERTIFICATE
AND REPORT**

ATTACHMENT 4

INDEPENDENT EXPERT SCIENTIFIC COMMITTEE'S ADVICE