



**BULLI SEAM OPERATIONS**

**ATTACHMENT 1**  
**DIRECTOR-GENERAL'S ENVIRONMENTAL**  
**ASSESSMENT REQUIREMENTS**

# Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

<b>Application Number</b>	08_0150
<b>Project</b>	<p>The Bulli Seam Project, which includes:</p> <ul style="list-style-type: none"> <li>• augmenting, upgrading and using the existing infrastructure at the Appin and West Cliff coal mines;</li> <li>• extracting up to 10.5 million tonnes of run-of-mine coal a year from the Bulli coal seam for a period of 30 years using longwall mining methods;</li> <li>• processing run-of-mine coal at both the West Cliff and Dendrobium washeries;</li> <li>• transporting product and run-of-mine coal from the site by road;</li> <li>• disposing of coal rejects on site; and</li> <li>• rehabilitating the site.</li> </ul>
<b>Location</b>	Approximately 25 kilometres northwest of Wollongong
<b>Proponent</b>	BHP Billiton Illawarra Coal Holdings Pty Ltd
<b>Date of Issue</b>	19 August 2008
<b>General Requirements</b>	<p>The Environmental Assessment of the project must include:</p> <ul style="list-style-type: none"> <li>• an executive summary;</li> <li>• a detailed description of the following within the Appin and West Cliff coal mine's holdings and any associated reject disposal areas: <ul style="list-style-type: none"> <li>- historical mining operations;</li> <li>- existing and approved mining operations/facilities, including any statutory approvals that apply to these operations and facilities; and</li> <li>- the existing environmental management and monitoring regime;</li> </ul> </li> <li>• a detailed description of the project, including the: <ul style="list-style-type: none"> <li>- need for the project;</li> <li>- alternatives considered, including a justification for the proposed mine plan/s and coal rejects disposal strategy on economic, social and environmental grounds;</li> <li>- likely staging of the project; and</li> <li>- plans of any proposed building works;</li> </ul> </li> <li>• a risk assessment of the potential environmental impacts of the project, identifying the key issues for further assessment;</li> <li>• a detailed assessment of the key issues specified below, and any other significant issues identified in the risk assessment (see above), which includes: <ul style="list-style-type: none"> <li>- a description of the existing environment, using sufficient baseline data;</li> <li>- an assessment of the potential impacts of all stages of the project, including any cumulative impacts, taking into consideration any relevant guidelines, policies, plans and statutory provisions (see below), and the findings and recommendations of the Southern Coalfield inquiry;</li> <li>- a description of the measures that would be implemented to avoid, minimise, mitigate, rehabilitate/remediate, monitor and/or offset the potential impacts of the project, including detailed contingency plans for managing any potentially significant risks to the environment;</li> </ul> </li> <li>• a statement of commitments, outlining all the proposed environmental management and monitoring measures;</li> <li>• a conclusion justifying the project on economic, social and environmental grounds, taking into consideration whether the project is consistent with the objects of the <i>Environmental Planning &amp; Assessment Act 1979</i>;</li> <li>• a signed statement from the author of the Environmental Assessment, certifying that the information contained within the document is neither false nor misleading.</li> </ul>

<p><b>Key Issues</b></p>	<ul style="list-style-type: none"> <li>• <b>Subsidence</b> – including: <ul style="list-style-type: none"> <li>- accurate predictions of the potential subsidence effects of the proposed mine plan/s, and a sensitivity analysis of these predictions; and</li> <li>- a detailed assessment of the potential impacts of these subsidence effects on both the natural and built environment, paying particular attention to significant features of this environment and the potential land use conflicts between mining and the future expansion of the Sydney metropolitan area;</li> </ul> </li> <li>• <b>Soil &amp; Water</b> – including: <ul style="list-style-type: none"> <li>- a detailed assessment of the potential impacts of the project on the quantity, quality and long-term integrity of the surface and ground water resources in the project area, paying particular attention to all significant watercourses;</li> <li>- site water balance, a detailed description of the measures that would be implemented on site to minimise the water use of the project;</li> </ul> </li> <li>• <b>Biodiversity</b> – including: <ul style="list-style-type: none"> <li>- accurate estimates of any vegetation clearing associated with the project;</li> <li>- a detailed assessment of the potential impacts of the project on any terrestrial and aquatic threatened species, populations, ecological communities or their habitats; and</li> <li>- a detailed description of the measures that would be implemented to maintain or improve the biodiversity values of the surrounding region in the medium to long term;</li> </ul> </li> <li>• <b>Heritage</b> – including the potential Aboriginal and non-Aboriginal heritage impacts of the project;</li> <li>• <b>Noise</b> – including the potential construction, operational and off-site road noise impacts;</li> <li>• <b>Air Quality</b>;</li> <li>• <b>Greenhouse Gas</b> – including: <ul style="list-style-type: none"> <li>- a quantitative assessment of the potential scope 1, 2 and 3 greenhouse gas emissions of the project, and qualitative assessment of the potential impacts of these emissions on the environment; and</li> <li>- a detailed description of the measures that would be implemented on site to ensure that the project is energy efficient;</li> </ul> </li> <li>• <b>Transport</b> - including a detailed assessment of the potential impacts of the project on the safety and performance of the road network;</li> <li>• <b>Waste</b> – including: <ul style="list-style-type: none"> <li>- robust estimates of the quantity and nature of the potential waste streams of the project;</li> <li>- a detailed description of the measures that would be implemented to minimise, reuse, recycle and dispose of any waste produced on site, including the proposed coal reject disposal strategy;</li> </ul> </li> <li>• <b>Hazards</b> – paying particular attention to public safety;</li> <li>• <b>Rehabilitation</b> – including a detailed description of the proposed rehabilitation strategy for the project, taking into consideration any relevant strategic land use planning or resource management plans or policies;</li> <li>• <b>Social &amp; Economic.</b></li> </ul>
<p><b>References</b></p>	<p>While not exhaustive, the following attachment contains a list of the guidelines, policies, and plans that may be relevant to the project.</p>
<p><b>Consultation</b></p>	<p>During the preparation of the Environmental Assessment, you should consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups or affected landowners.</p> <p>In particular you must consult with the:</p> <ul style="list-style-type: none"> <li>• Department of Environment and Climate Change;</li> <li>• Department of Primary Industries;</li> <li>• Department of Water and Energy;</li> <li>• Sydney Catchment Authority;</li> <li>• Dam Safety Committee;</li> <li>• Mine Subsidence Board;</li> </ul>

	<ul style="list-style-type: none"><li>• Roads and Traffic Authority;</li><li>• Department of Lands; and</li><li>• Wollongong, Wollondilly, Camden and Campbelltown Councils.</li></ul> <p>The consultation process, and the issues raised during this process, must be described in the Environmental Assessment.</p>
<b>Deemed refusal period</b>	120 days

## Policies, Guidelines & Plans

Aspect	Policy / Methodology
<b>Risk</b>	AS/NZS 4360:2004 Risk Management (Standards Australia)
	HB 203: 203:2006 Environmental Risk Management – Principles & Process (Standards Australia)
	Risk Management Handbook for the Mining Industry (DPI)
	Risk Management Policy Framework for Dam Safety (Dam Safety Committee)
<b>Subsidence</b>	Guideline for Application for Subsidence Management Approvals (DMR)
<b>Soil and Water</b>	Rural Land Capability Mapping (DLWC)
<b>Soil</b>	Agricultural Land Classification (DPI)
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC & NHMRC)
	National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC)
	Draft Guidelines for the Assessment & Management of Groundwater Contamination (DECC)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land (DOP)
	National Water Quality Management Strategy: Water quality management - an outline of the policies (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Policies and principles - a reference document (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Implementation guidelines (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)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC)
	State Water Management Outcomes Plan
	NSW Government Water Quality and River Flow Environmental Objectives (DECC)
<b>Surface Water</b>	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC)
Drinking Water Catchments Regional Environmental Plan No. 1	
Managing Urban Stormwater: Soils & Construction (Landcom)	
Managing Urban Stormwater: Treatment Techniques (DECC)	
Managing Urban Stormwater: Source Control (DECC)	
Floodplain Management Manual (DNR)	
Floodplain Risk Management Guideline (DECC)	
A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)	
Technical Guidelines: Bunding & Spill Management (DECC)	
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)	
Environmental Guidelines: Use of Effluent by Irrigation	

Groundwater	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	NSW State Groundwater Policy Framework Document (DLWC)
	NSW State Groundwater Quality Protection Policy (DLWC)
	NSW State Groundwater Quantity Management Policy (DLWC) Draft
	Murray-Darling Basin Groundwater Quality. Sampling Guidelines. Technical Report No 3 (MDBC)
	Murray-Darling Basin Commission. Groundwater Flow Modelling Guideline (Aquaterra Consulting Pty Ltd)
<b>Flora and Fauna</b>	
	Draft Guidelines for Threatened Species Assessment under Part 3A of the <i>Environmental Planning and Assessment Act 1979</i> (DEC)
	NSW Groundwater Dependent Ecosystem Policy (DLWC)
	Policy & Guidelines - Aquatic Habitat Management and Fish Conservation (NSW Fisheries)
	Policy & Guidelines - Fish Friendly Waterway Crossings (NSW Fisheries)
	State Environmental Planning Policy No. 44 – Koala Habitat Protection
<b>Heritage</b>	
Aboriginal	Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC)
	NSW Heritage Manual (NSW Heritage Office & DUAP)
Non- Aboriginal	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
<b>Noise</b>	
	NSW Industrial Noise Policy (DECC)
	Environmental Criteria for Road Traffic Noise (NSW EPA)
	Environmental Noise Control Manual (DECC)
<b>Air Quality</b>	
	Protection of the Environment Operations (Clean Air) Regulation 2002
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC)
<b>Greenhouse Gas</b>	
	AGO Factors and Methods Workbook (AGO)
	Guidelines for Energy Savings Action Plans (DEUS, 2005)
<b>Transport</b>	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RTA)
<b>Waste</b>	
	Waste Avoidance and Resource Recovery Strategy 2007 (DECC)
	Environmental Guidelines: Solid Waste Landfills (EPA)
	Environmental Guidelines: Assessment, Classification, and Management of Non-Liquid and Liquid Waste (EPA)
<b>Hazards</b>	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DUAP)
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis

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**Rehabilitation**

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

Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth of Australia)

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**Social & Economic**

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Draft Economic Evaluation in Environmental Impact Assessment (DOP)

Techniques for Effective Social Impact Assessment: A Practical Guide (Office of Social Policy, NSW Government Social Policy Directorate)

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**Strategic Plans**

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Metropolitan Strategy (DOP)

Illawarra Regional Strategy (DOP)

Illawarra Regional Environmental Plan No. 1

Special Areas Strategic Plan of Management 2007 (SCA & DEC)

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