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1 INTRODUCTION

This document is an Environmental Assessment (EA) for the Metropolitan Coal Project (the Project). The Project comprises continuation, upgrade and extension of underground coal mining operations and surface facilities at the existing Metropolitan Colliery.

The Metropolitan Colliery is located approximately 30 kilometres (km) north of Wollongong in New South Wales (NSW) (Figure 1-1) and the existing Metropolitan Colliery Major Surface Facilities Area is located in the town of Helensburgh (Figure 1-2).

The Metropolitan Colliery is owned and operated by Helensburgh Coal Pty Ltd (HCPL), a wholly owned subsidiary of Peabody Pacific Pty Limited (Peabody Pacific). Peabody Pacific is the Australasian subsidiary of Peabody Energy, the world's largest private sector coal company.

1.1 PROJECT OVERVIEW

1.1.1 Purpose of this Report

This EA has been prepared to accompany a Project Application made for the Project, in accordance with Part 3A of the *Environmental Planning and Assessment Act*, 1979 (the EP&A Act).

The Project was determined to be a "Major Project" to which Part 3A of the EP&A Act applies in accordance with the *State Environmental Planning Policy (Major Projects) 2005* (Major Projects SEPP) on 8 October 2007 by the Director-General of the NSW Department of Planning (DoP), as delegate of the NSW Minister for Planning.

This EA considers the potential environmental impacts of the Project in accordance with the Director-General's Environmental Assessment Requirements (EARs) issued by the DoP on 30 July 2008 (Attachment 1). The EARs were issued in accordance with the requirements of Part 3A of the EP&A Act and Part 1A of the Environmental Planning and Assessment Regulation, 2000 (EP&A Regulation). Further detail on the EARs is provided in Section 1.2.

1.1.2 Background

The Metropolitan Colliery is one of the earliest established and longest running coal mining operations in Australia, with history dating back to the 1880s.

Completed Underground Mining Areas are shown on Figure 1-2. Longwall mining of the Bulli Seam (the upper seam of the Illawarra Coal Measures in the NSW Southern Coalfield) commenced in 1995. HCPL is currently mining Longwalls 14 to 19A (Figure 1-2).

The underground mining operations are supported by the Metropolitan Colliery's surface facilities. The existing Metropolitan Colliery Major Surface Facilities Area is situated off Parkes Street in Helensburgh (Figure 1-3). The surface facilities include administration buildings, workshop, bath house and ablution facilities, haul roads, access road, fuel and consumables storage facilities, hardstand areas, a Coal Handling and Preparation Plant (CHPP), stockpiles (including run-of-mine [ROM] coal, product coal and coal reject stockpiles) and associated coal handling infrastructure (e.g. conveyors, transfer points and buffer bins). Existing water management infrastructure includes dams, sediment ponds, water diversions and a water treatment plant. Other existing surface facilities include ventilation facilities (Ventilation Shaft No. 3 – Figure 1-2) and supporting electrical

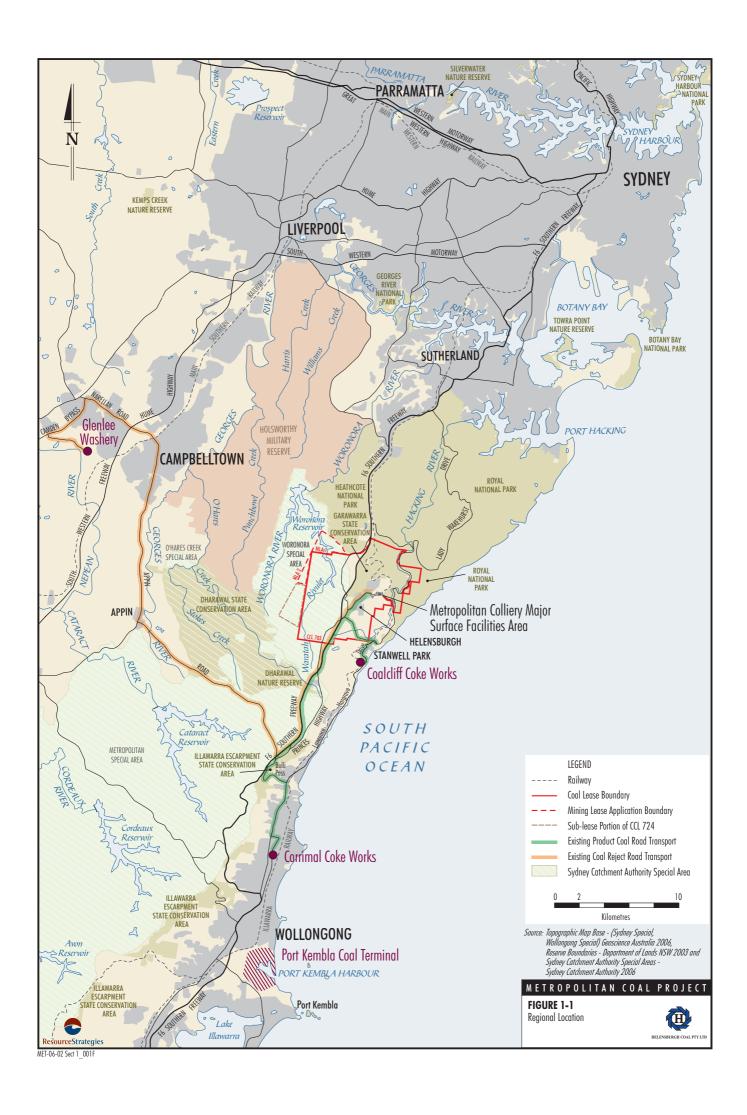
Coal extracted from the underground mining operations is transferred by conveyor to the ROM coal stockpile at the existing Metropolitan Colliery Major Surface Facilities Area. ROM coal is reclaimed, crushed, screened and washed at the CHPP. The Metropolitan Colliery currently produces up to approximately 1.5 million tonnes per annum (Mtpa) of hard coking and semi-hard coking product coal. The majority of product coal is transported by train to the Port Kembla Coal Terminal to domestic and overseas customers (Figure 1-1). A small proportion of the product coal is also transported by truck to the Corrimal and Coalcliff Coke Works for domestic use (Figure 1-1).

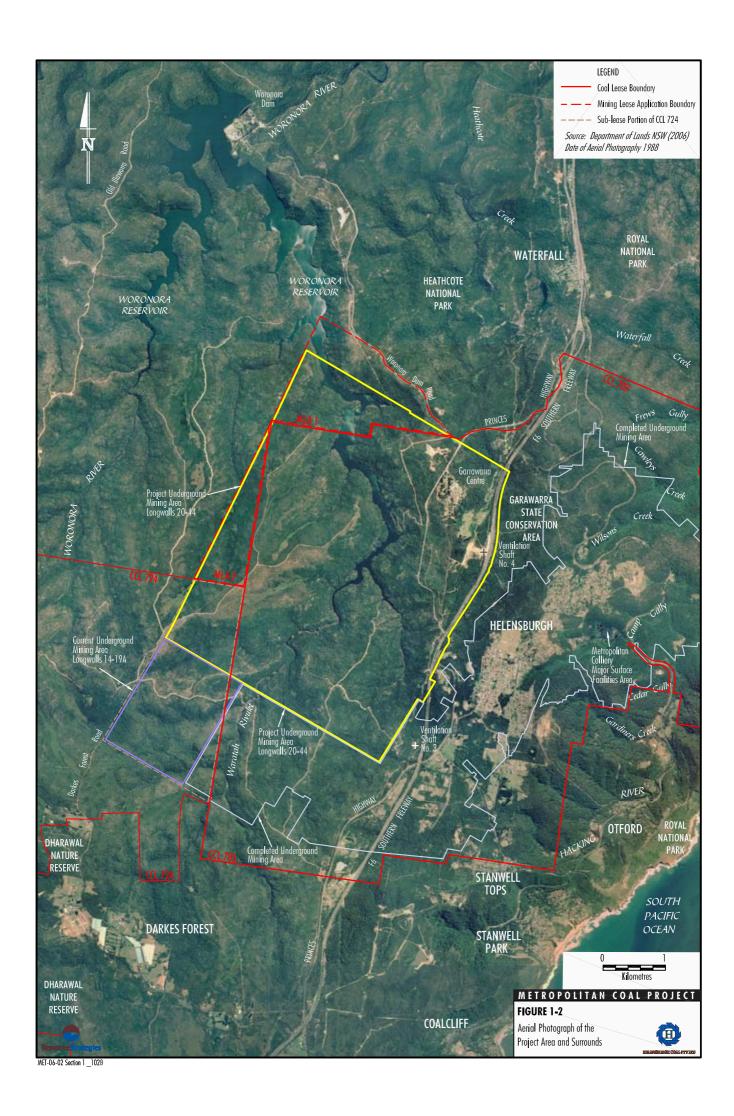
CHPP coal reject material is transported by truck to the Glenlee Washery which is owned and operated by SADA Services Pty Limited (SADA) (Figure 1-1).

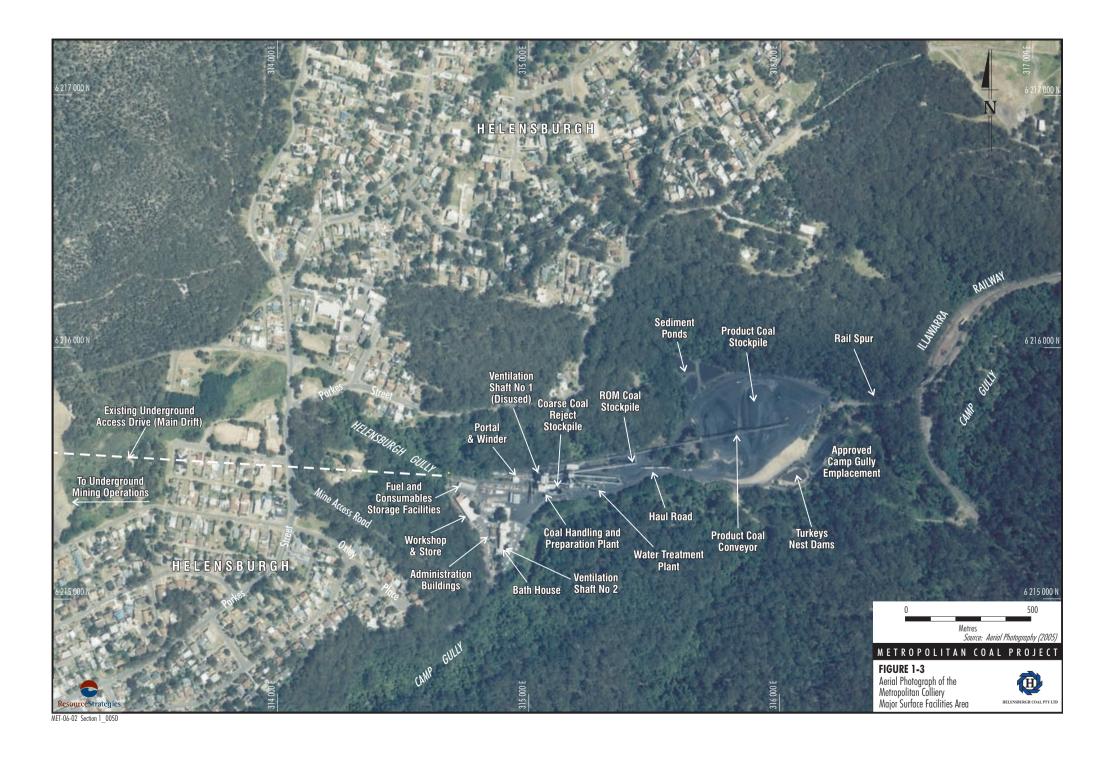
1.1.3 Project Summary

The Project would involve the continuation of underground mining operations at the Metropolitan Colliery. The Project would extend the underground mining area to the north of the Completed Underground Mining Area and the Current Underground Mining Area (into the Project Underground Mining Area shown on Figure 1-2).









The main activities associated with development of the Project would include:

- ongoing surface and underground exploration activities in the Project Underground Mining Area and Current Underground Mining Area;
- continued development of underground mining operations within the existing HCPL coal lease (Consolidated Coal Lease [CCL] 703) and associated sub-lease (a portion of CCL 724) and two new Mining Lease Application (MLA) areas (MLA 1 and MLA 2) (Figure 1-2);
- upgrades of the existing mining and materials handling systems (e.g. longwall machinery and conveyors) to facilitate an increased ROM coal production rate (up to approximately 3.2 Mtpa);
- continued use of the existing Metropolitan
 Colliery Major Surface Facilities Area and the existing supporting infrastructure;
- production of approximately 2.8 Mtpa of hard coking and semi-hard coking coal (including minor quantities of thermal coal) for export and domestic markets:
- upgrades of the CHPP to facilitate increased production of washed coal, including the addition of a beneficiation circuit;
- coal reject would continue to be produced, with quantities to increase in line with increased ROM coal production;
- continued transport of coal reject to the Glenlee Washery (Figure 1-1) which is owned and operated by SADA (with annual road movements capped at the existing maximum rate);
- continued transport of product coal by road to Coalcliff and Corrimal Coke Works (Figure 1-1);
- construction of a coal reject paste plant and associated coal reject stockpile, pumping, pipeline and underground delivery systems to facilitate the underground backfilling of the mine void using coal reject materials as an integrated component of the longwall mining operation:
- train loading and train movements associated with the transport of product coal to Port Kembla Coal Terminal (Figure 1-1) 24 hours per day, seven days per week;

- surface access and associated works within the Woronora Special Area (Figure 1-1) and surrounds that is required for environmental monitoring, management and remediation of mine subsidence;
- upgrades and/or extension of the existing supporting infrastructure systems (e.g. underground access, water management system, yard area, conveyor transfers and drives, ventilation, gas management and electrical systems) as required;
- extension of the life of the Metropolitan Colliery by approximately 23 years; and
- other associated minor infrastructure, plant, equipment and activities.

Upgrades of electricity transmission infrastructure to supply the future requirements of the Project (and/or the future requirements of Helensburgh) undertaken by the electricity supplier are not included as part of the Project or assessed in this EA.

1.1.4 Site Location and Tenure

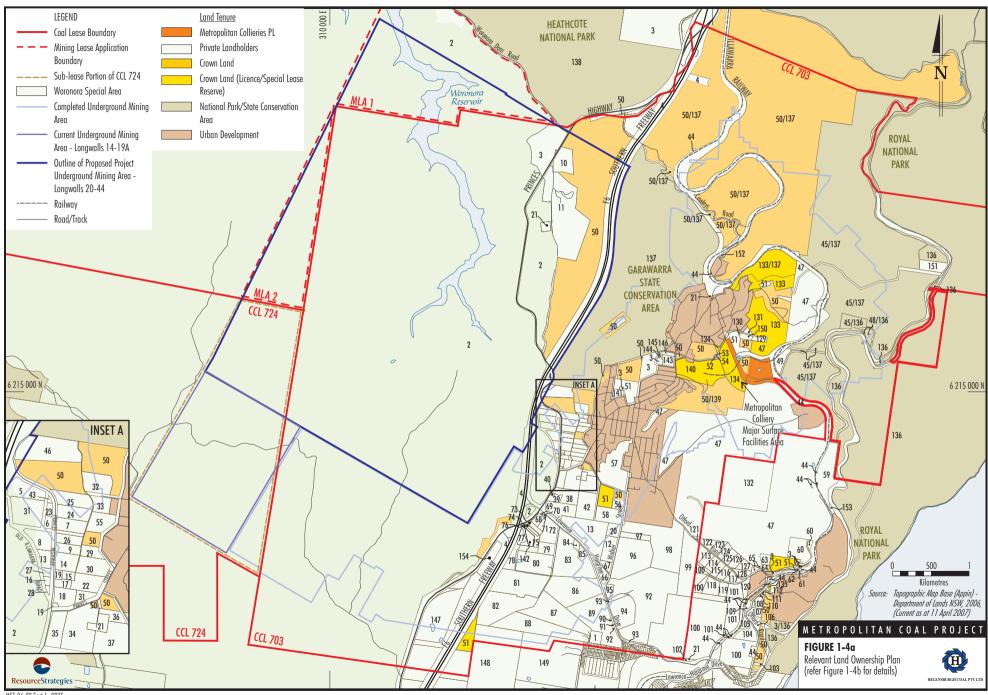
The Metropolitan Colliery is located within CCL 703 and a portion of CCL 724 (Figure 1-2) which is sub-leased from BHP Billiton Endeavour Coal Pty Ltd.

The Project would extend into two proposed MLA areas (MLA 1 and MLA 2) which adjoin CCL 703 to the west and north-west (Figure 1-2). The Project would also involve the transfer of the sub-leased portion of CCL 724 from BHP Billiton Endeavour Coal Pty Ltd to HCPL (Figure 1-2).

The Project underground mining operations within the sub-surface tenements described above would be supported by the Metropolitan Colliery's surface facilities. The existing Metropolitan Colliery Major Surface Facilities Area is situated off Parkes Street in Helensburgh (Figure 1-3). Other existing surface facilities include ventilation facilities (Ventilation Shaft No. 3 – Figure 1-2) and supporting electrical yard.

Relevant land ownership information for major parcels of land located outside of the residential areas of Helensburgh is shown on Figures 1-4a and 1-4b.





1	Wollongong City Council	54	CC & NC Brydon	105	C & DR Rook
2	Sydney Catchment Authority	55	Vozzo	106	GJ & KE Temple
3	NSW State Government	56	ND Giovanni	107	MMA King
4	NSW Roads and Traffic Authority	57	NSW Land & Housing Corporation	108	M Newbery
5	Debra Ann Bernbrock Avis	58	NW & LM Stibbard	109	BJ & MA McGregor
6	R & J Lord	59	RA & M Hedley	110	DP & PL Bannister
7	Raymond Kenneth Binner	60	International Society for Krishna Consciousness	111	MA & PM Jackman
8	GJ & CJ Brice		Incorporated	112	RA Hatt & TK Jackson
9	A O'Toole & E Lyons	61	CJ Crowe	113	D & H Stoffels
10	Macedonian Orthodox Church	62	PA Hutt	114	JH Orr PL
11	Health & Administration Corporation	63	BF & CA Redmond	115	BJ & D & PM Davie
12	BM & FB Smith	64	J Herklots	116	NG & BA Clissold & KC & BJ Eastment
13	FC Lumb	65	SL & C Brennan	117	WO Whitham-Taudien
14	G & D Edwards Developments PL	66	Sri Venkateswara Temple Association Incorporated	118	CA Huigen
15	N Daoud & Co PL	67	MA Luck	119	P & HJ Rogers
16	G Zipevski	68	Binner	120	CR McDougall & KA Pearce
17	MJ Callahan	69	Hunter	121	Endeavor Coal PL
18	J & RA Collins	70	Aldred	122	L Lennox
19	JS Carlson	71	Allen	123	RE & PB Shoveller
20	GA & BG Petty	72	Radnidge	124	AP & RE Maffi
21	Metropolitan Water Sewerage and Drainage Board	73	McDonald	125	CA Eyre
22	RR Clark	74	GW Laws	126	Tamino PL
23	FG & SRF Phillips	75	Gellybean Pty Ltd	127	J Mood (Nominees) PL
24	Graham Dalgleish	76	AS & JM Trimboli	128	RHW Winch
25	MN & JG Ehrlich	77	AJ Harris	129	Kenworthy
26	BA & SP Sircelj	78	Williams	130	Szewcow
27	BJ Davie	79	Baines Transport PL	131	GA & SJ Mercer
28	Pollard & Partners Electrics PL	80	SV Williams	132	FJ Thompson
29	Rupert Richard Parker	81	W & J McWilliam	133	Crown Land (Reserve for Classification 22-4-1917)
30	RA Bezic & DL Bezic	82	AJ Mullane	134	Crown Land (Reserve Public Purpose)
31	K & BA Burton	83	Binner PL	135	Crown Land (Reserve R14658 for Public)
32	U & AM Blackwell	84	KJ & CA Drake	136	Royal National Park
33	DA Garside	85	GE Warwick	137	Garawarra State Conservation Area
34	Port Securities PL	86	SJ Junee	138	Heathcote National Park
35	Durrabul PL	87	DL & DM & WL Gilmore	139	Reserve R79561 for Public Recreation and
36	ML Edgerton	88	RC & JV Venn		Preservation of Native Flora Notified 3-5-1957
37	Hanalam PL	89	N & J Severino	140	Reserve for Classification Gazetted 6-12-1920
38	Layton & Dawson	90	TD & LJ Gardner	141	Helensburgh Workmens Club Ltd
39	AG & RT Bell	91	PA & ET & GA & FA Antonuccio	142	BM Harris
40	DR & PJ & PA Coles	92	Minister administrating <i>National Parks & Wildlife Act 1974</i>	143	The Trustees of the Roman Catholic Church for the
41	NJ & LG Bussa	93	Minister administering the <i>Environmental Planning</i>	144	Diocese of Wollongong GT & AM Wood
42	D Brettschneider	70	and Assessment Act 1979	144	CJ Treland & MA Chipperfield
43	Takosu P/L	94	GB Pybus	145	''
44	Rail Corporation NSW	95	H & GV Gardner	140	Illawarra Local Aboriginal Land Council (RAB560219) Castlepeake Pty Ltd
45	NSW Planning & Environment Commission	96	TF & DB & EV Lloyd	148	
46	R & C Stewart	97	AT & NJ & HA Blackwell	149	Sada Services Pty Limited The Churches of Christ Property Trust
47	Ensile PL	98	AT Blackwell	150	MD Fawcett & S Prugovecki
48	JC & VJ Pollaers	99	CJ & GA Davies	150	PJ Johnson
49	R Campbell & SL Pick	100	EV Lloyd	151	AK & CP Reilly
50	Crown Land	101	TF Lloyd	152	AK & CP Kelliy MD Morgan
51	State Land Services	102	Sydney Water Corporation Limited	154	IID Durko
52	MJ & J Sear	103	EJV Rossum	134	JJP BUTKE Source: HCPL and Department of Lands (Current as at 11 April 2007)
53	CD & DA Warn	104	R Page		METROPOLITAN COAL PROJECT
					FIGURE 1-4b



FIGURE 1-4b Relevant Land Ownership List



The Metropolitan Coal Project - Project Application Area includes those lands listed in the real property descriptions included as an annexure to the Metropolitan Coal Project Major Project Application (HCPL, 25 July 2008) and is shown in Attachment 2. The surface (defined as lands to a depth of 50 metres [m] from the surface) of the Garawarra State Conservation Area, Royal National Park and the majority of surface lands to the east of the F6 Southern Freeway are excluded from the Project Application Area.

Exclusion of the surface of these lands from the Project Application Area does not preclude these areas below 50 m from the surface being used for underground exploration, access, materials transport, coal reject emplacement and other permitted underground activities in accordance with CCL 703 conditions, where relevant to the Project. It also does not preclude the Project use of existing roads, where required.

A description of the land zoning which applies to the Project is provided in Section 3.2.4.

1.1.5 Project Snapshot

Table 1-1 provides a summary snapshot of the Project components including upgrades and extensions as compared with a summary of the existing Metropolitan Colliery operations.

1.1.6 Proponent

The Project is being developed by HCPL, a wholly owned subsidiary of Peabody Pacific. HCPL is based at the Metropolitan Colliery:

Helensburgh Coal Pty Ltd Metropolitan Colliery PO Box 402 HELENSBURGH NSW 2508 Telephone: (02) 4294 7201

The principal office for Peabody Pacific is:

Peabody Pacific Pty Limited Level 27, AMP Place 10 Eagle Street BRISBANE QLD 4000 Telephone: (07) 3225 5500

1.2 ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The EARs for the Project were issued by the Director-General of the DoP on 30 July 2008 (Attachment 1).

A summary of the EARs is provided in Table 1-2. Table 1-2 also provides the relevant section of the EA where each requirement in the EARs is addressed.

1.3 DOCUMENT STRUCTURE

This EA comprises a main text component and supporting studies, which include Appendices A through O. An overview of the main text is presented below:

Section 1 Provides an introduction to the Project and the EA.

Section 2 Describes the various components of the Project, including the upgrade and extension of the existing Metropolitan Colliery operations and infrastructure.

Section 3

Outlines the statutory provisions relevant to the Project, describes the consultation undertaken, and summarises the outcomes of the Environmental Risk Analysis.

Describes the alternatives considered and provides a Project justification.

Section 4 Details the environmental assessment for the Project including a description of the existing environment, assessment of potential impacts and a description of measures that would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor the impacts of the Project.

Section 5 Describes rehabilitation and proposed remediation works for the Project, including measures to be undertaken at the closure of the Metropolitan Colliery.

Section 6 Provides HCPL's Draft Statement of Commitments outlining environmental management, mitigation and monitoring measures for the Project.

Section 7 Lists documents referenced in Sections 1 to 6 of the EA.

Section 8 Defines abbreviations, acronyms and terms used in Sections 1 to 6 of the FA.





Table 1-1 Project Snapshot

Project Component	Summary of Existing Metropolitan Colliery Operations	Summary of Metropolitan Coal Project
Underground Mining and ROM Coal Production	Production of approximately 1.8 Mtpa of ROM coal.	Production of up to approximately 3.2 Mtpa of ROM coal.
CHPP	The CHPP has a washing capacity of approximately 400 tonnes per hour (tph).	The CHPP and associated material handling systems would be upgraded to increase CHPP throughput up to approximately 600 tph.
		Installation of a beneficiation circuit in the CHPP.
Product Coal	 Production of approximately 1.5 Mtpa of hard coking and semi-hard coking coal for export and domestic markets. Product coal is transported by train to the 	Production of approximately 2.8 Mtpa of hard coking and semi-hard coking coal (including minor quantities of thermal coal) for export and domestic markets.
	Port Kembla Coal Terminal and by truck to the Corrimal and Coalcliff Coke Works.	Continued product coal transport by train to the Port Kembla Coal Terminal with increased rail movements in line with increased coal production.
		Trucking of product coal to the Corrimal and Coalcliff Coke Works would continue at the existing maximum rate of annual road movements.
Coal Reject Management	Coal reject is produced at the CHPP, stockpiled temporarily and then transported by truck to the Glenlee Washery.	Coal reject would continue to be produced, with production to increase in line with increased ROM coal production.
	No coal reject emplacement is currently undertaken at the existing Metropolitan Colliery Major Surface Facilities Area. ¹	Trucking of coal reject to Glenlee Washery would continue at the existing maximum rate of annual road movements.
		Construction of a coal reject paste plant and associated infrastructure to facilitate underground backfilling of the mine void by goaf injection.
		In the event that the quantity of coal reject is greater than anticipated or commissioning of the underground goaf injection technique is delayed, emplacement may take place into the old underground workings via Ventilation Shaft No. 1.
General Surface Facilities and Supporting Infrastructure	 Existing general surface facilities include administration buildings, coal handling infrastructure, bath house, workshops, equipment service facilities, car park, 	The existing surface facilities would be utilised, however, the Project would include the upgrade of some infrastructure and construction of additional components as required.
	 washdown and fuel storage facilities. Extensive supporting infrastructure including systems associated with: 	Supporting infrastructure systems would be extended and upgraded as required.
	- underground drift access and conveyors;	
	 electricity supply, reticulation and control; and 	
	 ventilation and gas management. 	
Water Management	 A network of water storages is utilised to manage surface water that accumulates on-site. 	Continued use and (where required) upgrade and augmentation of existing water management infrastructure, including upgrade of underground
	 Make-up water demand is met by sourcing stored water in historical workings, surface water runoff recovered from the existing Metropolitan Colliery Major Surface Facilities Area and purchase from Sydney Water as required. 	water management systems. Installation of an additional water tank.
	Water treatment, reuse and off-site release in accordance with Environment Protection Licence (EPL) No. 767.	
Life of Mine	Longwalls 14 to 19A are currently scheduled for completion in 2010.	An additional mine life of approximately 23 years.



Table 1-1 (Continued) Project Snapshot

Project Component	Summary of Existing Metropolitan Colliery Operations	Summary of Metropolitan Coal Project
Employment	HCPL currently has an operational workforce (staff and on-site contractors) of approximately 320 people.	The operational workforce is expected to remain at approximately 320 people. It is anticipated that a peak construction workforce of up to 50 employees would be required.

HCPL currently retains a Wollongong City Council (WCC) approval for development of a coal reject emplacement in Camp Gully (Section 2.8.5 and Figure 1-3).

Table 1-2
Director-General's Environmental Assessment Requirements – Reference Summary*

The Environmental Assessment (EA) must include: Executive Summary. Description of the Metropolitan Colliery including historical and existing mining operations, facilities, environmental management and monitoring. Project justification and alternatives considered. Risk assessment of the potential environmental impacts of the Project. Description of the existing environment. Description of the existing environmental impacts of the Project. Assessment of the potential environmental impacts of all stages of the Project, including cumulative impacts. Description of the measures to avoid, minimise, mitigate, rehabilitate/remediate, monitor and/or offset the potential impacts of the Project. Statement of Commitments. A conclusion justifying the Project on economic, social and environmental grounds, taking into consideration whether the project is consistent with the objects of the EP&A Act. Certification by the author of the EA. Key Issues Subsidence. Subsidence. Section 4.2 and A Sections 2.9, 4.1, 4.3 Appendices B Biodiversity. Sections 3.4, 3.9.3, 4 and Appendices D Sections 4.8 and Appendices B Noise.	and 4
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	Appendix J
Air Quality. Section 4.11 and A	ppendix K
Greenhouse Gas. Sections 3.8 and 4.11 a	and Appendix K
• Transport. Section 4.12 and A	Appendix L
• Waste. Sections 2.8, 2.10.	3 and 4.1.3
Hazards. Section 4.15 and A	ppendix N
Rehabilitation. Section 9	5
Social and Economic. Sections 4.13 and Appendix	
Consultation Requirements	
Describe consultation with relevant local, State or Commonwealth Government authorities, service providers, community groups or affected landowners. Section 3	
The consultation process, and the issues raised during this process, must be described in the EA. Section 3	.5

The complete version of the EARs is presented in Attachment 1.



Attachments to the main text are also provided as follows:

Attachment 1 Director-General's Environmental

Assessment Requirements

Attachment 2 Project Application Area

Attachment 3 Peer Review Letters

Appendices A to O contain supporting documentation, including a number of independent specialist reports:

Appendix A	Subsidence Assessment
Appendix B	Groundwater Assessment
Appendix C	Surface Water Assessment
Appendix D	Aquatic Ecology Assessment
Appendix E	Baseline Flora Survey
Appendix F	Terrestrial Vertebrate Fauna Survey
Appendix G	Terrestrial Flora and Fauna Impact Assessment
Appendix H	Aboriginal Cultural Heritage Assessment
Appendix I	Non-Aboriginal Heritage Assessment
Appendix J	Noise Impact Assessment
Appendix K	Air Quality Impact Assessment
Appendix L	Traffic Assessment
Appendix M	Socio-Economic Assessment
Appendix N	Preliminary Hazard Analysis
Appendix O	Environmental Risk Analysis

1.4 PROJECT CONSULTANTS

This EA was prepared by Resource Strategies Pty Ltd with specialist input provided by the following organisations and individuals:

- HCPL project team (project design, alternatives and justification, preliminary hazard analysis, environmental risk analysis, background data, resource economics, remediation and Statement of Commitments);
- Mine Subsidence Engineering Consultants (MSEC) (subsidence assessment);
- Heritage Computing (groundwater assessment);

- Gilbert and Associates Pty Ltd (surface water assessment);
- Bio-Analysis Pty Ltd (aquatic ecology assessment):
- Bangalay Botanical Surveys (baseline flora survey);
- Biosphere Environmental Consultants Pty Ltd (terrestrial vertebrate fauna survey);
- Western Research Institute (terrestrial fauna survey and assessment);
- FloraSearch (terrestrial flora assessment);
- Kayandel Archaeological Services (Aboriginal cultural heritage assessment);
- Heritage Management Consultants Pty Ltd (non-Aboriginal heritage assessment);
- Heggies Pty Ltd (noise impact assessment);
- Holmes Air Sciences (air quality impact assessment);
- Masson Wilson Twiney (traffic assessment);
- Gillespie Economics (socio-economic assessment);
- SP Solutions (environmental risk analysis);
- Allan Watson Associates (coal reject management);
- Blake Dawson (legal review); and
- Dr Barry Noller (water quality analysis).

In addition to the above, Peer Review was undertaken by the following specialists:

- Dr Walter Boughton (surface water assessment - catchment hydrology);
- Dr David Goldney (flora and aquatic ecology assessments); and
- Mr Robert (Ben) Gunn (Aboriginal cultural heritage assessment).

