



Section 1

South East Open Cut Project
&
Modification to the
Existing ACP Consent

SECTION 1

Contents

1	INTRODUCTION	S1-3
1.1	THE PROJECT	1-3
1.1.1	Project Need	1-3
1.1.2	Objectives	1-3
1.2	THE PROPONENT	1-5
1.3	PROJECT BACKGROUND	1-5
1.4	LOCATION AND LAND DESCRIPTION	1-6
1.5	ENVIRONMENTAL ASSESSMENT.....	1-6
1.5.1	Project Alternatives	1-6
1.5.2	Risk Assessment	1-6
1.5.3	Environmental Assessment Requirements	1-6
1.6	STRUCTURE OF ENVIRONMENTAL ASSESSMENT REPORT	1-12
1.7	STUDY TEAM.....	1-13
1.8	ACKNOWLEDGEMENTS.....	1-14

Tables

Table 1.1:	Environmental assessment requirements for the SEOC project.....	1-9
Table 1.2:	Specialist consultants involved in the preparation of the environmental assessment report.	1-13

Figures

Figure 1.1:	Location of the SEOC project.....	1-4
Figure 1.2:	Landownership of the SEOC area.....	1-7
Figure 1.3:	Landownership of Camberwell village	1-8

THIS PAGE LEFT BLANK

1 INTRODUCTION

Ashton Coal Operations Limited (ACOL) has commissioned Wells Environmental Services (WES) to prepare an Environmental Assessment (EA) report for the South East Open Cut (SEOC) Project and modifications to the existing development consent for the Ashton Coal Project (ACP) located near Camberwell in the Singleton local government area of New South Wales. The location of the project is shown by **Figure 1.1**.

1.1 The Project

The SEOC Project comprises an open cut coal mine, offices, workshop, access road, run of mine (ROM) coal facility, out of pit emplacement and integration with the existing ACP. The proposed SEOC will produce approximately 3.6 Million tonnes per annum (Mtpa) of ROM coal at peak production over a period of 7 years. ROM coal will be processed by the existing ACP processing plant and transported to market by train. The mining tenements that comprise the SEOC project include Exploration Licences (EL) 4918 and EL 5860 and Authorisation 81 held by Navidale Pty Limited.

ACOL are also seeking modifications to the existing Development Consent (DA 309-11-2001-i) to allow integration of the SEOC project with the existing ACP operations, increase the peak production rate to 5Mtpa from the existing underground mine, and an increase of the throughput at the existing CHPP to 8.6Mtpa of ROM coal.

Two applications have been made:

- An application for Project Approval for the construction and operation of the SEOC pursuant to Section 75E, Part 3A of the *Environmental Planning and Assessment (EP&A) Act 1979* (as amended).
- An application to modify the existing ACP development consent pursuant to Section 75W of the EP & A Act 1979.

1.1.1 Project Need

Open cut operations within the existing ACP are due to close in October 2010. The SEOC will replace the existing open cut operations, extracting 3.6Mtpa of ROM coal, create 100 jobs during construction and maintain employment for 160 employees currently working within the existing open cut.

The project will result in the investment of \$83 million in order to extract and process approximately 20.6Mt of ROM coal for both the export and domestic markets. Benefits from mining the resource include the creation of direct and indirect employment opportunities during the project's construction and operational phases, as well as royalties and taxes paid to the various tiers of government.

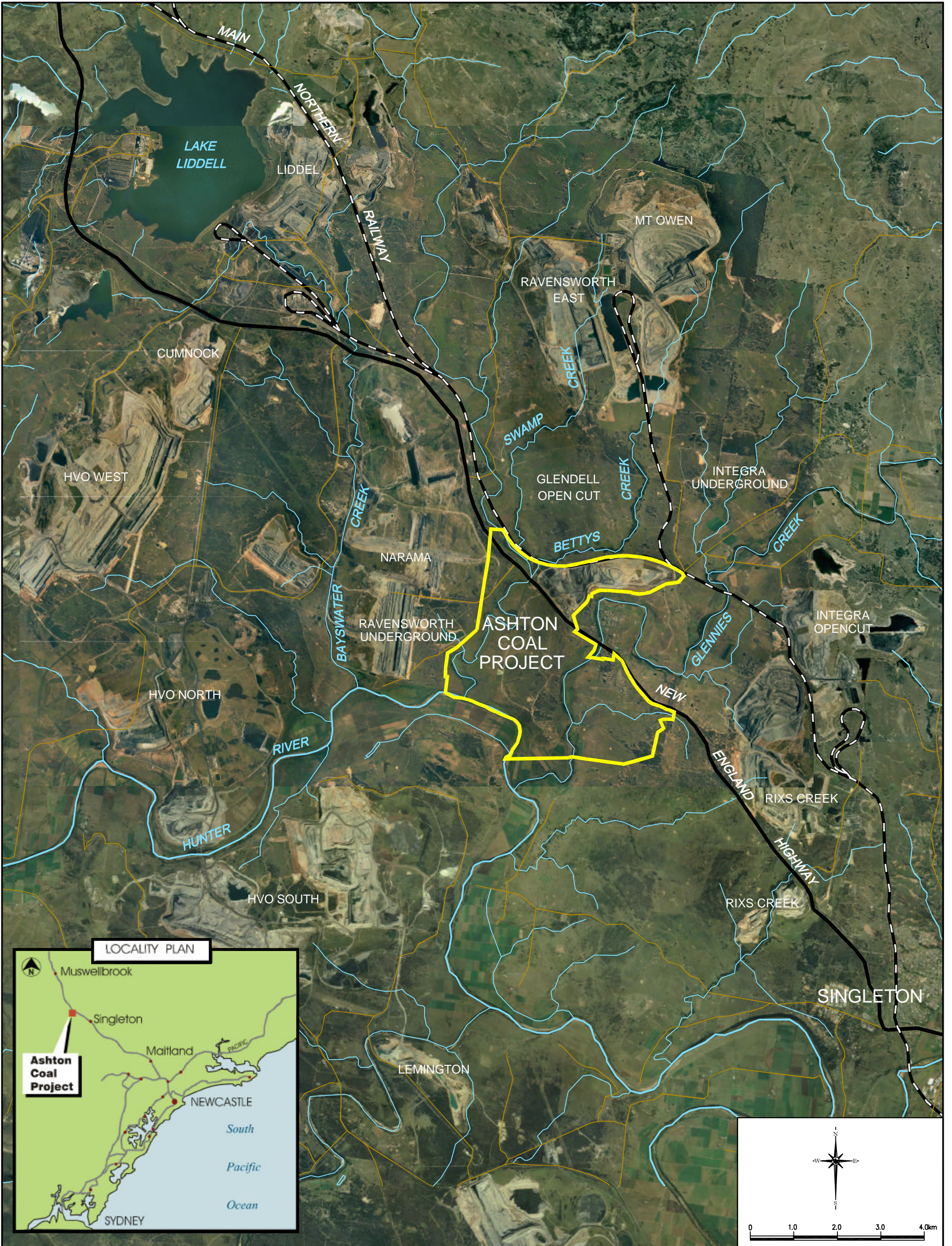
The modification to the existing ACP development consent is required to both allow full utilisation of existing infrastructure by the SEOC and to maximise potential operational efficiencies within the underground mine.

The royalties and taxes received by government are reinvested in the broader community to maintain or enhance our standard of living.

1.1.2 Objectives

The principal objectives of this project are to:

- Maintain employment of 160 people currently employed at the ACP open cut operations.



- Ensure that the selected mining methods and mine design safe and efficient.
- Minimise adverse social, environmental and amenity impacts.
- Maximise the recovery of the mineable resources within the area.
- Maintain a cost effective business, with low capital and operating costs.
- Utilise existing infrastructure where possible.
- Minimise capital expenditure requirements.

1.2 The Proponent

The proponent for the project is ACOL, a wholly owned subsidiary of Felix Resources Limited (FRL), a publicly listed company on the Australian Stock Exchange and the operator of the ACP. The ACP is owned by the Ashton Joint Venture.

The Ashton Joint Venture is currently comprised of the following participants:

- Felix Resources Limited (60%).
- International Marine Corporation Group (30%).
- ICRA Ashton (10%).

FRL is an Australian resources company developing, operating and investing in resource-related projects with a primary focus on coal. FRL's key assets are the ACP and Moolarben coal mining project in New South Wales and the Yarrabee and Minerva coal mines and Athena and Harrybrandt exploration projects in Queensland. The Ultra-Clean Coal (UCC) technology and associated patents are also owned by FRL.

FRL has grown strongly since 2003 through expansion, new developments and acquisitions, based on coal sales from its existing and proposed mining operations, whilst being conscious of its environmental responsibilities.

FRL contributes to the Coal 21 Fund, a voluntary fund established by the coal industry to invest in various clean coal demonstrations.

1.3 Project Background

Initial investigations within the area began in late 1969 as part of a larger exploration program that was serviced and managed by the Joint Coal Board (JCB) for Durham Holdings Ltd, a related body corporate of consolidated Gold Fields Australia Ltd and Dalgety Australia Ltd.

In September 1999, the Minister for the Department of Mineral Resources transferred to White Mining Limited (WML) all rights, title and interests in EL 4918 – the Ashton area. In 2000, 2001, WML undertook further exploration. In 2001 EL 5860 located east of and adjacent to EL 4918 was granted to WML.

In November 2001, WML lodged a Development Application No. 309-11-2001 for the ACP with the Department of Planning. The ACP was granted development consent under Part 4 of the EP&A Act 1979 by the Minister for Planning on 11 October 2002. The ACP comprises an open cut coal mine, an underground coal mine, coal preparation plant and associated surface facilities. The ACP 2002 development consent was modified in February 2007 to allow for the disposal of tailings to the unused Ravensworth Void No. 4.

In April 2005 FRL acquired White Mining Limited, and therefore became a major shareholder of the ACP.

The 2002 ACP development consent 309-11-2001-i, as modified (refer to *Section 2*) is hereinafter referred to as the “*existing ACP consent*”.

1.4 Location and Land Description

The SEOC project is located 14 km north west of Singleton in the Hunter Valley of NSW within the Hunter Coalfields of the Sydney Basin and includes coal resources and reserves that occur within the Foybrook formation.

The village of Camberwell is located to the north of the proposed SEOC. The project application area and ownership details are shown by **Figure 1.2** and **Figure 1.3**.

The proposed SEOC project is bounded to the north by the New England Highway, to the west by Glennies Creek and the south by mining tenement boundaries. Conveyors and pipelines will extend from the SEOC project to the existing ACP surface facilities located to the north and west. The existing ACP open cut operations are located to the north west of the village of Camberwell and the New England Highway, with the underground operations located to the west of Glennies Creek and south of the New England Highway.

Neighbouring open cut mines include the Glendell open cut to the north, Camberwell, Rix's Creek and Integra open cuts to the east, Hunter Valley Operations (HVO) South to the south and Ravensworth operations mine complex to the west. Neighbouring underground mines include the Integra underground mine to the north and Ravensworth underground mine to the west. The Liddell and Bayswater Power Stations are located north-west of the project area. Refer to *Section 5.3* for a more detailed review of land uses located in the vicinity of the SEOC project.

1.5 Environmental Assessment

The assessment of environmental impacts associated with the SEOC project and modifications to the existing ACP development consent will be undertaken by the New South Wales Department of Planning (DoP) in accordance with the requirements of the EP&A Act 1979 and the *Environmental Planning and Assessment Regulations, 2000* (EP&AR).

1.5.1 Project Alternatives

A number of alternatives to mining sequencing, mining method, emplacement, set back, design, infrastructure and facilities, both in respect of the SEOC and the modification, were considered as well as the no development option. The proposed mine layout, mining method, infrastructure and facilities comprise the best economic, operational, community and safety outcomes with least environmental impacts. Further detailed review of the alternatives is contained within *Section 7.3*.

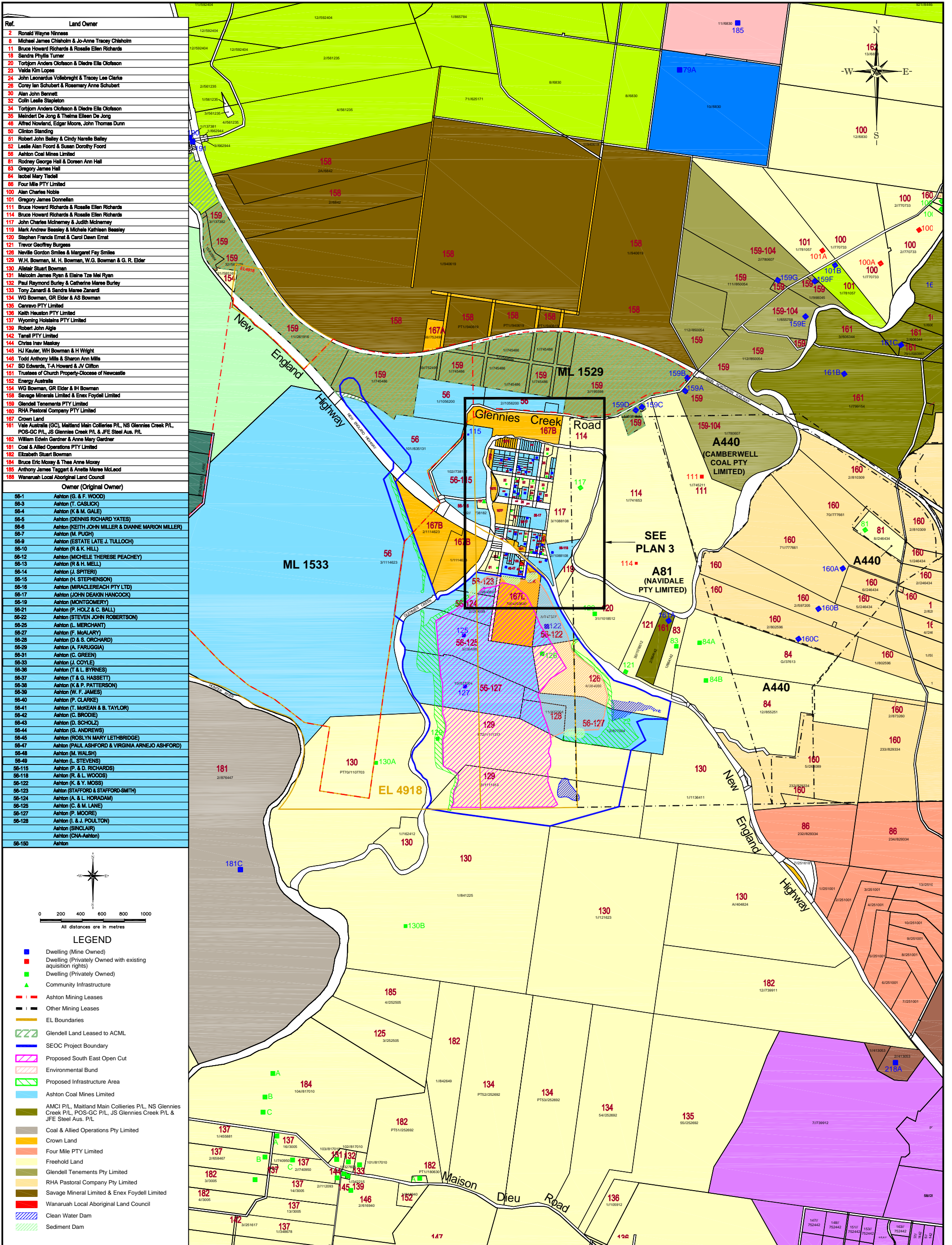
1.5.2 Risk Assessment

As required in the DGR's a risk assessment of the potential environmental impacts of the project identifying the key issues for further assessment was undertaken (see *Section 3.9* of the EA).

1.5.3 Environmental Assessment Requirements

Applications in respect of the SEOC project and modification were lodged (08-0182 and 309-11-2001 Mod 5 on 11 March, 2009). These application documents (incorporating preliminary environmental assessments) include a description of ACP as proposed to be modified as well as the SEOC project (Applications).

Following lodgement of the Applications the public was notified of the Applications (in accordance with clause 8F(3)(b) of the Environmental Planning and Assessment Regulation 2000 by publishing notices within the Newcastle Herald and the Singleton Argus Newspapers on 24 March, 2009.

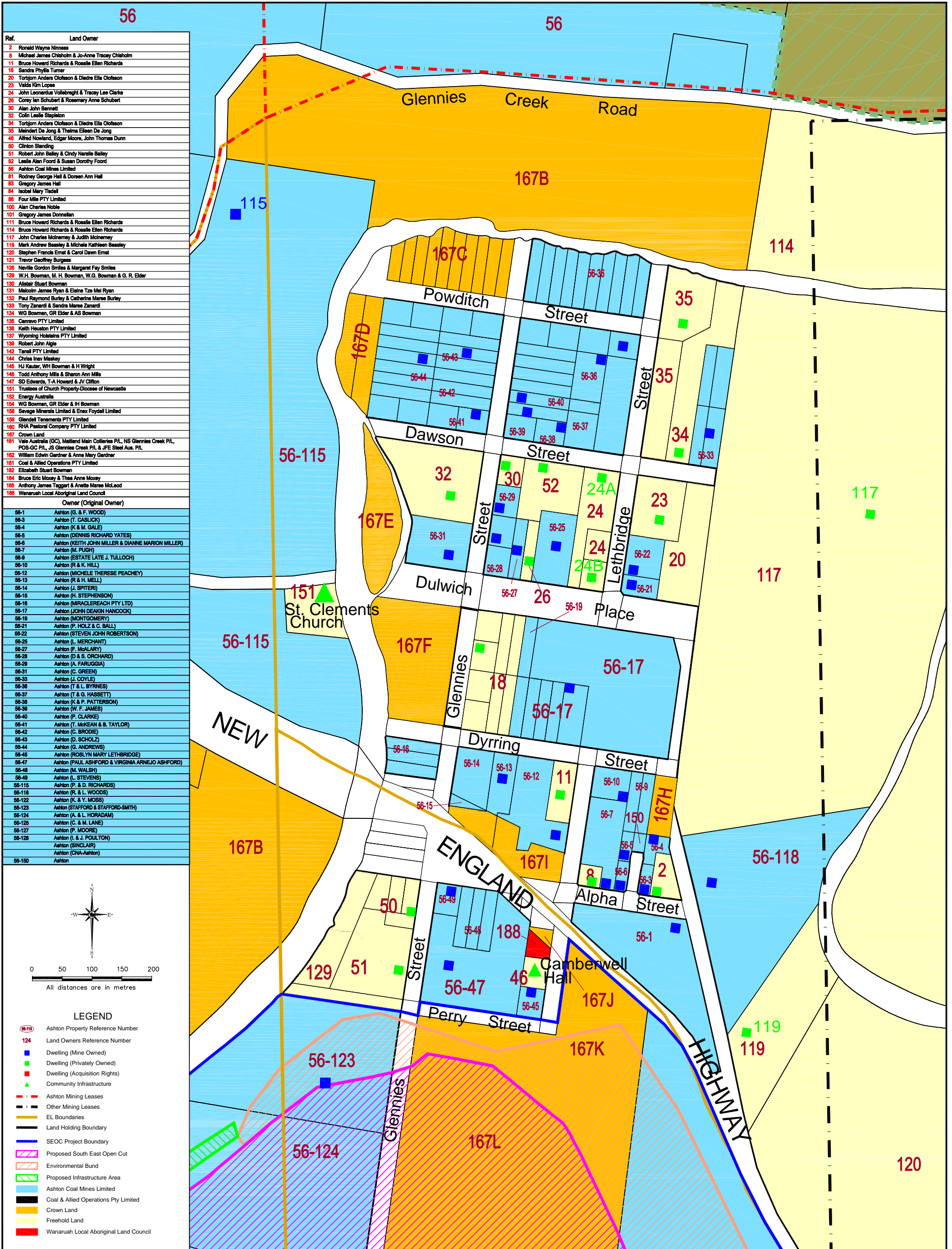


Ref.	Land Owner
2	Ronald Wayne Ninnes
8	Michael James Chisholm & Jo-Anne Tracey Chisholm
11	Bruce Howard Richards & Rosalie Ellen Richards
18	Sandra Phyllis Turner
20	Torbjorn Anders Olofsson & Diedre Ella Olofsson
23	Valda Kim Lopes
24	John Leonardus Vollebreght & Tracey Lee Clarke
26	Conry Ian Schubert & Rosemary Anne Schubert
30	Alan John Bennett
32	Colin Leslie Stapleton
34	Torbjorn Anders Olofsson & Diedre Ella Olofsson
35	Meindert De Jong & Thelma Eileen De Jong
46	Alfred Nowland, Edgar Moore, John Thomas Dunn
50	Clinton Standing
51	Robert John Bailey & Cindy Narelle Bailey
52	Leslie Alan Foord & Susan Dorothy Foord
56	Ashton Coal Mines Limited
81	Rodney George Hall & Doreen Ann Hall
83	Gregory James Hall
84	Isobel Mary Tiedel
86	Four Mile PTY Limited
100	Alan Charles Noble
101	Gregory James Donnellan
111	Bruce Howard Richards & Rosalie Ellen Richards
114	Bruce Howard Richards & Rosalie Ellen Richards
117	John Charles McNamey & Judith McNamey
119	Mark Andrew Beasley & Michele Kathleen Beasley
120	Stephan Francis Ernst & Carol Dawn Ernst
121	Trevor Geoffrey Burgess
126	Neville Gordon Smiles & Margaret Fay Smiles
129	W.H. Bowman, M. H. Bowman, W.G. Bowman & G. R. Elder
130	Alister Stuart Bowman
131	Malcolm James Ryan & Elaine Tze Mei Ryan
132	Paul Raymond Burley & Catherine Maree Burley
133	Tony Zanardi & Sandra Maree Zanardi
134	WG Bowman, GR Elder & AS Bowman
135	Canrevo PTY Limited
136	Keith Heuston PTY Limited
137	Wyoming Holsteins PTY Limited
139	Robert John Algie
142	Tanah PTY Limited
144	Chris Iner Maskey
145	HJ Kauter, WH Bowman & H Wright
146	Todd Anthony Mills & Sharon Ann Mills
147	SD Edwards, T-A Howard & JV Clifton
151	Trustees of Church Property-Diocese of Newcastle
152	Energy Australia
154	WG Bowman, GR Elder & H Bowman
155	Savage Minerals Limited & Enex Foydell Limited
159	Glendell Tenements PTY Limited
160	RHA Pastoral Company PTY Limited
161	Crown Land
161	Valis Australia (GC), Maitland Main Collieries P/L, NS Glennies Creek P/L, POS-GC P/L, JS Glennies Creek P/L & JFE Steel Aus. P/L
162	William Edwin Gardner & Anne Mary Gardner
161	Coal & Allied Operations PTY Limited
162	Elizabeth Stuart Bowman
164	Bruce Eric Moxey & Thea Anne Moxey
165	Anthony James Taggart & Anette Maree McLeod
168	Wanaruah Local Aboriginal Land Council
Owner (Original Owner)	
56-1	Ashton (G. & F. WOOD)
56-3	Ashton (T. CASLUCK)
56-4	Ashton (K & M. GALE)
56-5	Ashton (DENNIS RICHARD YATES)
56-6	Ashton (KEITH JOHN MILLER & DIANNE MARION MILLER)
56-7	Ashton (M. PUGH)
56-9	Ashton (ESTATE LATE J. TULLOCH)
56-10	Ashton (R & K. HILL)
56-12	Ashton (MICHELE THERESE PEACHEY)
56-13	Ashton (R & H. MELL)
56-14	Ashton (J. SPITERI)
56-15	Ashton (H. STEPHENSON)
56-16	Ashton (MIRACLEREACH PTY LTD)
56-17	Ashton (JOHN DEAKIN HANCOCK)
56-19	Ashton (MONTGOMERY)
56-21	Ashton (P. HOLZ & C. BALL)
56-22	Ashton (STEVEN JOHN ROBERTSON)
56-25	Ashton (L. MERCHANT)
56-27	Ashton (F. McALARY)
56-28	Ashton (D & S. ORCHARD)
56-29	Ashton (A. FARUGGIA)
56-31	Ashton (C. GREEN)
56-33	Ashton (J. COYLE)
56-36	Ashton (T & L. BYRNES)
56-37	Ashton (T & G. HASSETT)
56-38	Ashton (K & P. PATTERSON)
56-39	Ashton (W. F. JAMES)
56-40	Ashton (P. CLARKE)
56-41	Ashton (T. McKEAN & B. TAYLOR)
56-42	Ashton (C. BRODIE)
56-43	Ashton (D. SCHOLZ)
56-44	Ashton (G. ANDREWS)
56-45	Ashton (ROSLYN MARY LETHBRIDGE)
56-47	Ashton (PAUL ASHFORD & VIRGINIA ARNEJO ASHFORD)
56-48	Ashton (M. WALSH)
56-49	Ashton (L. STEVENS)
56-115	Ashton (P. & D. RICHARDS)
56-118	Ashton (R. & L. WOODS)
56-122	Ashton (K. & Y. MOSS)
56-123	Ashton (STAFFORD & STAFFORD-SMITH)
56-124	Ashton (A. & L. HORADAM)
56-125	Ashton (C. & M. LANE)
56-127	Ashton (P. MOORE)
56-128	Ashton (I. & J. POULTON)
56-129	Ashton (SINCLAIR)
56-130	Ashton (CNA-Ashton)
56-150	Ashton

0 200 400 600 800 1000
All distances are in metres

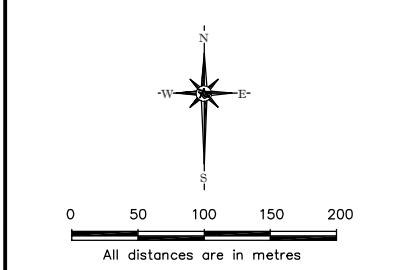
LEGEND

- Dwelling (Mine Owned)
- Dwelling (Privately Owned with existing acquisition rights)
- Dwelling (Privately Owned)
- ▲ Community Infrastructure
- Ashton Mining Leases
- Other Mining Leases
- EL Boundaries
- Glendell Land Leased to ACML
- SEOC Project Boundary
- Proposed South East Open Cut
- Environmental Bund
- Proposed Infrastructure Area
- Ashton Coal Mines Limited
- AMCI P/L, Maitland Main Collieries P/L, NS Glennies Creek P/L, POS-GC P/L, JS Glennies Creek P/L & JFE Steel Aus. P/L
- Coal & Allied Operations Pty Limited
- Crown Land
- Four Mile PTY Limited
- Freehold Land
- Glendell Tenements Pty Limited
- RHA Pastoral Company Pty Limited
- Savage Mineral Limited & Enex Foydell Limited
- Wanaruah Local Aboriginal Land Council
- Clean Water Dam
- Sediment Dam



Ref.	Land Owner
2	Ronald Wayne Hinness
8	Michael James Chisholm & Jo-Anne Tracey Chisholm
11	Bruce Howard Richards & Rosalie Ellen Richards
18	Sandra Phyllis Turner
20	Torbjorn Anders Olofsson & Diedre Ella Olofsson
23	Valda Kim Lopes
24	John Leonardus Vollebreght & Tracey Lee Clarke
26	Corey Ian Schubert & Rosemary Anne Schubert
30	Alan John Bennett
32	Colin Leslie Stapleton
34	Torbjorn Anders Olofsson & Diedre Ella Olofsson
35	Meindert De Jong & Thelma Eileen De Jong
46	Alfred Nowland, Edgar Moore, John Thomas Dunn
60	Clinton Standing
61	Robert John Bailey & Cindy Narelle Bailey
62	Leslie Alan Foord & Susan Dorothy Foord
66	Ashton Coal Mines Limited
81	Rodney George Hall & Doreen Ann Hall
83	Gregory James Hall
84	Isobel Mary Tisdell
86	Four Mile PTY Limited
100	Alan Charles Noble
101	Gregory James Donnellan
111	Bruce Howard Richards & Rosalie Ellen Richards
114	Bruce Howard Richards & Rosalie Ellen Richards
117	John Charles McInerney & Judith McInerney
119	Mark Andrew Beasley & Michele Kathleen Beasley
120	Stephen Francis Ernst & Carol Dawn Ernst
121	Trevor Geoffrey Burgess
128	Neville Gordon Smiles & Margaret Fay Smiles
129	W.H. Bowman, M. H. Bowman, W.G. Bowman & G. R. Elder
130	Alistair Stuart Bowman
131	Malcolm James Ryan & Elaine Tze Mei Ryan
132	Paul Raymond Burley & Catherine Maree Burley
133	Tony Zanardi & Sandra Maree Zanardi
134	WG Bowman, GR Elder & AS Bowman
136	Cannevo PTY Limited
138	Keith Heuston PTY Limited
137	Wyoming Holdings PTY Limited
139	Robert John Algie
142	Tanall PTY Limited
144	Chris Inev Mastley
145	HJ Kauter, WH Bowman & H Wright
146	Todd Anthony Mills & Sharon Ann Mills
147	SD Edwards, T.A Howard & JV Clifton
151	Trustees of Church Property-Diocese of Newcastle
152	Energy Australia
154	WG Bowman, GR Elder & IH Bowman
158	Savage Minerals Limited & Enex Foyshall Limited
159	Glendall Tenements PTY Limited
160	RHA Pastoral Company PTY Limited
167	Crown Land
161	Vale Australia (GC), Metalland Main Collieries P/L, NS Glennies Creek P/L, POS-GC P/L, JS Glennies Creek P/L & JFE Steel Aus. P/L
162	William Edwin Gardner & Anne Mary Gardner
161	Coal & Allied Operations PTY Limited
162	Elizabeth Stuart Bowman
164	Bruce Eric Moxey & Thea Anne Moxey
165	Anthony James Taggart & Anette Maree McLeod
168	Wanarah Local Aboriginal Land Council

Owner (Original Owner)	
96-1	Ashton (G. & F. WOOD)
96-3	Ashton (T. CASLUCK)
96-4	Ashton (K. & M. GALE)
96-5	Ashton (DENNIS RICHARD YATES)
96-6	Ashton (KEITH JOHN MILLER & DIANNE MARION MILLER)
96-7	Ashton (M. PUGH)
96-9	Ashton (ESTATE LATE J. TULLOCH)
96-10	Ashton (R & K. HILL)
96-12	Ashton (MICHELE THERESE PEACHEY)
96-13	Ashton (R & H. MELL)
96-14	Ashton (J. SPITERI)
96-15	Ashton (H. STEPHENSON)
96-16	Ashton (MIRACLEREACH PTY LTD)
96-17	Ashton (JOHN DEAKIN HANCOCK)
96-19	Ashton (MONTGOMERY)
96-21	Ashton (P. HOLZ & C. BALL)
96-22	Ashton (STEVEN JOHN ROBERTSON)
96-25	Ashton (L. MERCHANT)
96-27	Ashton (F. McALARY)
96-28	Ashton (D & S. ORCHARD)
96-29	Ashton (A. FARUGGIA)
96-31	Ashton (C. GREEN)
96-33	Ashton (J. COYLE)
96-36	Ashton (T & L. BYRNES)
96-37	Ashton (T & G. HASSETT)
96-38	Ashton (K & P. PATTERSON)
96-39	Ashton (W. F. JAMES)
96-40	Ashton (P. CLARKE)
96-41	Ashton (T. McKEAN & B. TAYLOR)
96-42	Ashton (C. BRODIE)
96-43	Ashton (D. SCHOLZ)
96-44	Ashton (G. ANDREWS)
96-45	Ashton (ROSLYN MARY LETHBRIDGE)
96-47	Ashton (PAUL ASHFORD & VIRGINIA ARNEJO ASHFORD)
96-48	Ashton (M. WALSH)
96-49	Ashton (L. STEVENS)
96-115	Ashton (P. & D. RICHARDS)
96-118	Ashton (R. & L. WOODS)
96-122	Ashton (K. & Y. MOSS)
96-123	Ashton (STAFFORD & STAFFORD-SMITH)
96-124	Ashton (A. & L. HORADAM)
96-125	Ashton (C. & M. LANE)
96-127	Ashton (P. MOORE)
96-128	Ashton (I. & J. POULTON)
Ashton (SINCLAIR)	
Ashton (CNA-Ashton)	
96-150	Ashton



LEGEND	
(96-15)	Ashton Property Reference Number
124	Land Owners Reference Number
■ (Blue)	Dwelling (Mine Owned)
■ (Green)	Dwelling (Privately Owned)
■ (Red)	Dwelling (Acquisition Rights)
▲ (Green)	Community Infrastructure
- - - (Red)	Ashton Mining Leases
- - - (Black)	Other Mining Leases
- - - (Yellow)	EL Boundaries
- - - (Black)	Land Holding Boundary
- - - (Blue)	SEOC Project Boundary
- - - (Pink)	Proposed South East Open Cut
- - - (Green)	Environmental Bund
- - - (Blue)	Proposed Infrastructure Area
- - - (Blue)	Ashton Coal Mines Limited
- - - (Black)	Coal & Allied Operations Pty Limited
- - - (Yellow)	Crown Land
- - - (White)	Freehold Land
- - - (Red)	Wanarah Local Aboriginal Land Council

On 19 May 2009 the Director-General of the Department of Planning issued Director-General's Requirements (DGRs) for environmental assessment in respect of both the modification and the new SEOC project application pursuant to section 75F EPA Act.

Table 1.1 provides an overview of the requirements and the location within this report where they are addressed and a complete copy of the requirements are included within **Appendix 1B**.

The EA report addresses the issues contained within the Environmental Assessment Requirements for both the SEOC project and modification to the existing development consent. The EA report provides an assessment of the potential impacts of the SEOC project and proposed modifications to the existing ACP, identifies and describes the need for the project including environmental safeguards and measures to mitigate project impacts, together with the proponent's Statement of Commitments and justification for the project.

Table 1.1: Environmental assessment requirements for the SEOC project.

Aspect	Where Addressed in EA Report
General Requirements	
<ul style="list-style-type: none"> • An executive summary. 	
<ul style="list-style-type: none"> • A detailed description of: <ul style="list-style-type: none"> - existing and approved mining operations in the vicinity of the site. - historical mining operations on the site. - existing and approved mining operations and infrastructure on the site including a copy of all relevant statutory approvals. - any existing and/or approved biodiversity and heritage offset areas relating to these operations. - the existing environmental management regimes for these operations. 	Volume 1, Section 5.4.
	Volume 1, Sections 1.3, 5.20, 7.3.1 and Appendix 14.
	Volume 1, Sections 1.3, 2.6, 4 and Appendix 2.
	Volume 1, Section 4.3 and Figure 4.2.
	Volume 1, Section 5.2.
<ul style="list-style-type: none"> • A detailed description of the project, including the: <ul style="list-style-type: none"> - need for the project. - alternatives considered, including justification for the proposed mine plan. - likely staging of the project. - likely interactions between the project and existing and approved mining operations. - plans of any proposed building works. 	Volume 1, 1.1.1 and 7.2
	Volume 1, Section 7.3.
	Volume 1, Section 4.0, and Figures 4.4 to 4.9.
	Volume 1, Section 4.0, Section 5.0.
	Volume 1, Section 4.0 and Volume 2.
<ul style="list-style-type: none"> • A risk assessment of the potential environmental impacts of the project, identifying the key issues for further assessment. 	Volume 1, Section 3.9.
<ul style="list-style-type: none"> • 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"> - a description of the existing environment, using sufficient baseline data. - an assessment of the potential impacts of all stages of the project on this environment, including any cumulative impacts, taking into consideration any relevant laws, policies, guidelines and plans, and the findings of the Independent Review of Cumulative Impacts on Camberwell Village. - a description of the measures that would be implemented to avoid, minimise, and if necessary offset the potential impacts of the project, including detailed contingency plans for managing any significant risks to the environment. 	Volume 1, Section 5 & Volumes 3, and 4.
	Volume 1, Section 3.2, Sections 5.5.4.4, 5.8.6.4 and 5.27.1
	Volume 1, Section 5 and Volumes 3 and 4.

Aspect	Where Addressed in EA Report
<ul style="list-style-type: none"> A statement of commitments, outlining the proposed environmental management and monitoring measures. 	Volume 1, Section 6.
<ul style="list-style-type: none"> A conclusion justifying the project, taking into consideration: the suitability of the site; the economic, social and environmental impacts of the project as a whole, and whether the project is consistent with the objects of the Environmental Planning & Assessment Act 1979. 	Volume 1, Section 7.
<ul style="list-style-type: none"> A signed statement from the author of the Environmental Assessment, certifying that the information contained within the document is neither false nor misleading. 	In front of table of contents.
Key Issues	
<ul style="list-style-type: none"> Air Quality – including a quantitative assessment of the potential air quality impacts of the project. 	Volume 1, Section 5.5 and Appendix 3.
<ul style="list-style-type: none"> Noise & Blasting – including a quantitative assessment of the potential: <ul style="list-style-type: none"> construction, operational and off-site road and rail noise impacts. blasting impacts of the project on people, livestock and property (paying particular attention to those properties with heritage significance). 	Volume 1, Sections 5.8, 5.9 and Appendix 4.
	Volume 1, Section 5.8.4 and Appendix 4.
	Volume 1, Section 5.9 and Appendix 4.
<ul style="list-style-type: none"> Soil & Water – including: <ul style="list-style-type: none"> a site water balance for the project. a detailed assessment of the potential impacts of the project, using quantitative modelling, on: <ul style="list-style-type: none"> the quantity and quality of both surface and ground water resources. water users, both in the vicinity of and downstream of the project. the riparian and ecological values of the watercourses both on site and downstream of the project. environmental flows. flooding. detailed design plans for the proposed levee, including a clear demonstration that there would be no adverse effects on the integrity of the watercourses to the west of the pit boundary. 	Volume 1, Section 5.11.4 and Appendix 6.
	Volume 1, Section 5.10, 5.11, Appendix 5 and 6.
	Volume 1, Section 5.10.5.7, 5.11.2.4, 5.11.6, Appendix 5 and 6.
	Volume 1, Section 5.17 & Appendix 11.
	Volume 1, Sections 5.11.2, 5.11.6.3, 5.11.6.4 and Appendix 6.
	Volume 1, Section 5.12 & Appendix 6.
	Volume 1, Section 4.4.7.3, 5.13 and Figure 4.10.
<ul style="list-style-type: none"> Biodiversity – including: <ul style="list-style-type: none"> accurate predictions of the proposed vegetation clearing. a detailed assessment of the potential impacts of the project on any terrestrial and aquatic threatened species, populations, ecological communities or their habitats. an offset strategy to ensure that the project will maintain or improve the biodiversity conservation value of the region. 	Volume 1, Section 5.16 and Appendix 10.
	Volume 1, Section 5.16, 5.17, Appendix 10 and 11.
	Volume 1, Sections 5.16.4, 5.28, 6.0 and Appendix 10.

Aspect	Where Addressed in EA Report
<ul style="list-style-type: none"> • Transport – including: <ul style="list-style-type: none"> - accurate predictions of the road and rail traffic of the project. - a detailed assessment of the potential impacts of this traffic on the capacity, efficiency, and safety of the road and rail networks. 	
	Volume 1, Sections 4.4, 5.21 and Appendix 15.
	Volume 1, Sections 5.21 and Appendix 15.
<ul style="list-style-type: none"> • Heritage – both Aboriginal and non-Aboriginal. 	Volume 1, Sections 5.19, 5.20, Appendix 13 and 14.
<ul style="list-style-type: none"> • Visual – including detailed specifications for the proposed environmental bund adjacent to the New England Highway and accurate estimates of the construction timeframes. 	Volume 1, Sections 4.4.4.5, 5.18 and Appendix 12. Figures 4.6, 4.7, 4.13, 4.21 and 4.22.
<ul style="list-style-type: none"> • Greenhouse Gas – including: <ul style="list-style-type: none"> - a quantitative assessment of the potential scope 1, 2 and 3 greenhouse gas emissions of the project. - a qualitative assessment of the potential impacts of these emissions on the environment. - an assessment of all reasonable and feasible measures that could be implemented on site to minimise the greenhouse gas emissions of the project and ensure it is energy efficient. 	
	Volume 1, Section 5.7 and Appendix 3.
	Volume 1, Section 5.7, 7 and Appendix 3.
<ul style="list-style-type: none"> • Waste – including: <ul style="list-style-type: none"> - accurate estimates of the quantity and nature of the potential waste streams of the project, including tailings and coarse reject. - a detailed description of the measures that would be implemented to minimise the production of waste on site, and ensure that any waste produced is appropriately handled and disposed of. 	
	Volume 1, Section 4.4.6.4, 4.4.8, 5.15 and Appendix 9.
	Volume 1, Section 5.25.3.
<ul style="list-style-type: none"> • Rehabilitation – including a detailed description of the proposed rehabilitation strategy for the project area, having particular regard to: <ul style="list-style-type: none"> - the key objectives and principles in the Strategic Framework for Mine Closure (ANZMEC/MCA). - any relevant strategic land use planning or resource management plans or policies. - the potential for integrating this strategy with any other offset strategies in the region. 	
	Volume 1, Section 4.4.12 and 5.29.
	Volume 1, Section 2 and 5.28.5. Volume 1, Section 5.28, 5.29 and 4.4.5. Figure 5.56 and 5.57.
<ul style="list-style-type: none"> • Social & Economic – including: <ul style="list-style-type: none"> - an assessment of the potential impacts of the project on the local and regional community, paying particular attention to its potential impact on the village of Camberwell, and the demand it may generate for the provision of additional infrastructure and services. - a detailed assessment of the costs and benefits of the project as a whole, and whether it would result in a net benefit for the NSW community. 	
	Volume 1, Section 5.22, 5.26, and 6 and Appendix 17 and Appendix 18.
	Volume 1, Section 5.26, 7 and Appendix 17 and Appendix 18.

1.6 Structure of Environmental Assessment Report

The EA report has been prepared to assist the consent authority and the public in understanding the proposed SEOC project and modifications to the existing development consent along with associated impacts and safeguards and to identify the proponent's commitments.

The EA report is presented in five (5) volumes. Volume 1 of the EA report is divided into an executive summary and nine (9) separate sections and contains both summary and detailed descriptions of the SEOC project and proposed modifications to the existing development consent, the process involved in obtaining approval, an overview of community consultation, identification and analysis of environmental interactions, management safeguards and risk analysis. Volume 1 also contains the proponent's Statement of Commitments, together with a list of references and glossary of terms used within the EA report.

A summary of each of the sections within Volume 1 of the EA report is shown below. Volume 2 contains plans whilst Volumes 3, 4 and 5 contain copies of specialist studies. The specialist studies provide a detailed technical analysis of key issues identified and associated with the project.

Executive Summary provides a detailed summary of Volume 1 of the EA report and in doing so incorporates the key issues identified within the specialist studies.

Section 1. Introduction provides an introduction to the proposed development and modifications reported in the EA document. It provides a brief description of the project, project need and objectives, proponent (ACOL), background, location, the environmental assessment process, Environmental Assessment Requirements, study team, EA report structure and how it should be read.

Section 2. Project Approval Framework describes the Project Approval framework under Part 3A of the EP&A Act, 1979 and the applicable environmental planning regime (instruments, legislation, licences, approvals and permits) that applies to the assessment of the SEOC project and proposed modifications to the existing development consent.

Section 3. Stakeholder and Community Consultation describes the stakeholder and community consultation that has been undertaken in the lead up to, and throughout the environmental assessment process. Consultation includes community consultative committees, community information sessions, newsletters, "one on one" discussions, surveys, website and telephone hotline, consultation with government authorities and public exhibition of the EA report.

Section 4. Project Description provides a detailed description of the SEOC project and proposed modifications to the existing ACP development consent. The description includes the coal resource, infrastructure and facilities, SEOC, roads and utilities, equipment fleet, water and waste management, work force and working hours and mine closure.

Section 5. Existing Environment and Interactions provides a detailed description of the existing environment, potential impacts, safeguards and management measures to minimise and prevent predicted impacts on the environment. This section summarises the key issues of the specialist reports contained within Volumes, 3, 4 and 5.

Section 6. Draft Statement of Commitments contains the draft Statement of Commitments that ACOL will implement. These commitments include updating and revising the existing Environmental Management Strategy and Environmental Management and Monitoring Plans to incorporate the SEOC and proposed modifications to the existing development consent into the ACP environmental management system.

Section 7. Project Justifications and Conclusions concludes the EA report by justifying the importance of coal in terms of the national and global economy and its role in improving the standard of living in conjunction with the development of renewable energies and lower or zero emission coal technology. This section also confirms that the project meets the objects of the EP&A Act 1979.

Section 8. References list of references of all material used in the preparation of Volume 1 of the EA report.

Section 9. Abbreviations list of all abbreviations used within Volume 1 of the EA report.

1.7 Study Team

This EA report was prepared with the management and assistance of ACOL by WES and specialist consultants shown in **Table 1.2**.

Whilst most ACOL personnel assisted in with the project, the key personnel include:

- Peter Barton – Ashton Coal Mine – General Manager.
- Lisa Richards – Ashton Coal Mine – Environment and Community Relations Manager.
- Mike Woodard – Ashton Coal Mine – Mining Engineer.
- Brian Chilcott – Ashton Coal Mine – Open Cut Manager.
- Jim Smith – Ashton Coal Mine – Infrastructure Engineer.

Table 1.2: Specialist consultants involved in the preparation of the environmental assessment report.

Project Role	Consultant
Project management and Environmental Assessment report writing, assessment of impacts and safeguards.	Wells Environmental Services.
Drafting and plan preparation.	Pegasus Technical
Conceptual infrastructure engineering design and management	Parsons Brinckerhoff under the management and direction of John Quinn Projects.
Acid Rock Drainage Assessment.	Environmental Geochemistry International Pty Limited.
Acoustical and Vibration Impact Assessments.	Spectrum Acoustics Pty Ltd.
Air Quality and Greenhouse Gas Assessment.	PAEHolmes
Aquatic Ecology Impact Assessment.	Marine Pollution Research.
Archaeology	Insite Heritage.
Cost Benefit Analysis.	Gillespie Economics.
Economic Assessment and Social Profiles.	Hunter Valley Research Foundation.
European Heritage Assessment.	Heritas Architecture.
Flora and Fauna Impact Assessment.	Environmental Resource Management (ERM).
Glennies Creek Geomorphology assessment	WorleyParsons.
Groundwater Assessment.	Aquaterra Pty Ltd.
Preliminary Hazard Analysis.	AECOM.
Soils, Agricultural Suitability and Land Capability.	Department of Lands – Soil Services.
Surface Water Impact and Flooding Assessment.	WorleyParsons.
Traffic Assessment.	Sinclair Knight Merz Pty Limited (SKM).
Visual Impact Assessment.	O'Hanlon Design Pty Limited.

1.8 Acknowledgements

The assistance and co-operation of Ashton Coal Community Consultative Committee, local residents, aboriginal community groups, staff of neighbouring coal mines, New South Wales Department of Planning, government authorities and Singleton Shire Council is gratefully acknowledged in the preparation and production of the Environmental Assessment report.

A special thank you is extended to the local land owners, for permitting access to your land. The assistance, patience and advice given by yourselves and your families are gratefully acknowledged. The project team appreciate your assistance in obtaining geological, environmental and heritage information for the project.