STRATFORD EXTENSION PROJECT

Project Description and Preliminary Environmental Assessment

October 2011

GLOUCESTER COAL

STRATFORD COAL PTY LTD

STRATFORD EXTENSION PROJECT

PROJECT DESCRIPTION AND PRELIMINARY ENVIRONMENTAL ASSESSMENT

October 2011
Project No. GCL-10-12
Document No. 00412619

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1 INTRODUCTION

1.1 PURPOSE AND STRUCTURE OF THIS DOCUMENT

Stratford Coal Pty Ltd (SCPL), a wholly owned subsidiary of Gloucester Coal Limited (GCL), is seeking consent for the continuation and extension of open cut coal mining and processing activities at the Stratford Coal Mine (SCM) and Bowens Road North Open Cut (BRNOC) (both mines are referred to collectively as the Stratford Mining Complex [SMC]) (herein referred to as the Stratford Extension Project [the Project]).

This document has been prepared to disseminate Project information to key State regulatory agencies, facilitate the discussion of issues that will need to be addressed during the environmental assessment process, and initiate the preparation of the Director-General's Requirements (DGRs) under clause 3 of Schedule 2 of the New South Wales (NSW) *Environmental Planning and Assessment Regulation, 2000* (EP&A Regulation).

The remainder of this document is structured as follows:

Section 1 Introduction – provides a background to the development of the Project and an overview of the proposed Project activities.

Section 2 Local and Regional Context – summarises the local and regional context of the Project (including surrounding development).

Section 3 Project Description and Justification – provides a clear and concise description of the Project, indicates the types of activities that will be undertaken, includes a justification for the Project, and summarises alternatives to the Project considered.

Section 4 Planning Considerations – describes the permissibility of the Project and applicable statutory planning instruments and strategic planning documents.

Section 5 Preliminary Environmental Assessment – identifies key environmental issues of particular relevance to the Project, provides an analysis of the likely nature and extent of potential impacts, and identifies the level and scope of environment impact assessment to be undertaken for the Environmental Impact Statement (EIS).

Section 6 Stakeholder Consultation – outlines consultation (with the community, local councils and Government agencies) already undertaken, and proposed to be carried out, for the Project.

Section 7 References – Lists documents referenced in Sections 1 to 6.

1.2 BACKGROUND

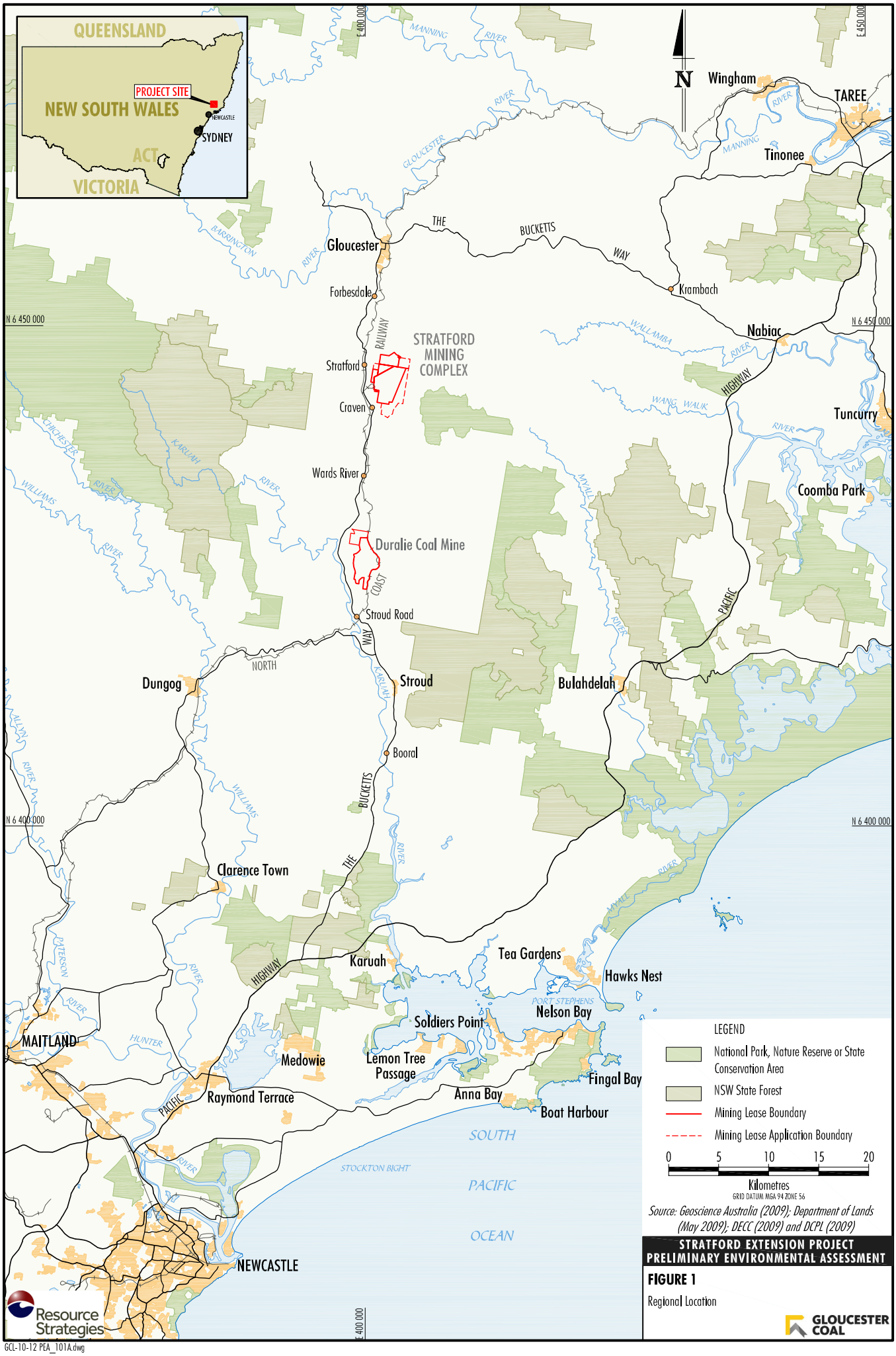
The SCM and BRNOC are open cut coal operations located approximately 95 kilometres (km) north of Newcastle, NSW in the Gloucester Basin (Figure 1). The nearby Duralie Coal Mine (DCM) is owned by GCL and is located approximately 20 km south of the SMC.

The SCM is operated in accordance with an existing Development Consent DA 23-98/99, as modified. BRNOC is operated in accordance with Development Consent DA 39-02-01, as modified. DCM is operated in accordance with Project Approval (08_0203).

Construction at the SCM commenced in 1995 and the Stratford Main Pit was mined for eight years. The Stratford Main Pit is now used for water storage and as an emplacement area for rejects from the SCM Coal Handling and Preparation Plant (CHPP). The BRNOC has been in operation since 2003. All coal produced at BRNOC is transported via the existing SCM haul road to the SCM run-of-mine (ROM) pad, where it is blended and processed in the CHPP. The SMC currently extracts coal from the Roseville West Pit, which commenced in 2007 and from the BRNOC.

The DCM commenced coal production in 2003. ROM coal mined at the DCM is transported on the North Coast Railway to SCM where it is unloaded and processed at the CHPP.

The CHPP is used to process ROM coal from the SCM, BRNOC and the DCM, and to reprocess rejects from the co-disposal emplacement area at the SCM. Blended product coal from SCM, BRNOC and DCM is railed to Newcastle.



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1.3 PROJECT OVERVIEW

The Project is a proposed extension of open cut mining operations at the SMC for an additional operational life of approximately 11 years.

SCPL is seeking approval from the NSW Minister for Planning and Infrastructure for a new Development Consent under Division 4.1 of Part 4 of the *NSW Environmental Planning and Assessment Act, 1979* (EP&A Act) for the Project which would consolidate and replace the existing Development Consents (DA 23-98/99 and DA 39-02-01) for the SCM and BRNOC, respectively.

The Project would include the following activities:

- a proposed continuation and extension of open cut mining operations at the SMC for an additional operational life of approximately 11 years;
- continuation of open cut mining, including the extension of current open cut workings and emplacements, and the construction of two additional open cut pits (Figure 2), i.e.:
  - extension of the existing approved open pit (i.e. Roseville West Extension open pit) in the western and southern directions.
  - two additional open pits (i.e. Avon North and Stratford East); and
  - extension of the Stratford Waste Emplacement and Northern Waste Emplacement.
- ROM production of up to 2.6 million tonnes per annum (Mtpa);
- construction and use of new waste and coal stockpile areas;
- continued backfilling of pit voids with CHPP rejects and/or waste rock;
- recovery of rejects in the co-disposal emplacement area;
- construction and use of dams, open pits, channels, dewatering bores and other control measures to manage groundwater and surface water within and around the mine site;
- continued use of SCM rail loading/unloading facilities;
- ongoing rail transport of coal to Newcastle;
- realignment of 132 kilovolt (kV) power line;
- realignment of Wenham Cox Road and Bowens Road/Wheatleys Road to the east and the north of the mine site respectively;
- lifting the Stratford East Dam to increase water storage capacity; and
- other associated ancillary infrastructure, plant, equipment and activities.

It is proposed to surrender the SCM and BRNOC Development Consents if the Project is approved with conditions satisfactory to the Proponent.

Additional details of each of the main Project components are provided in Section 3.

2 LOCAL AND REGIONAL CONTEXT

2.1 LOCATION AND MINING TENEMENTS

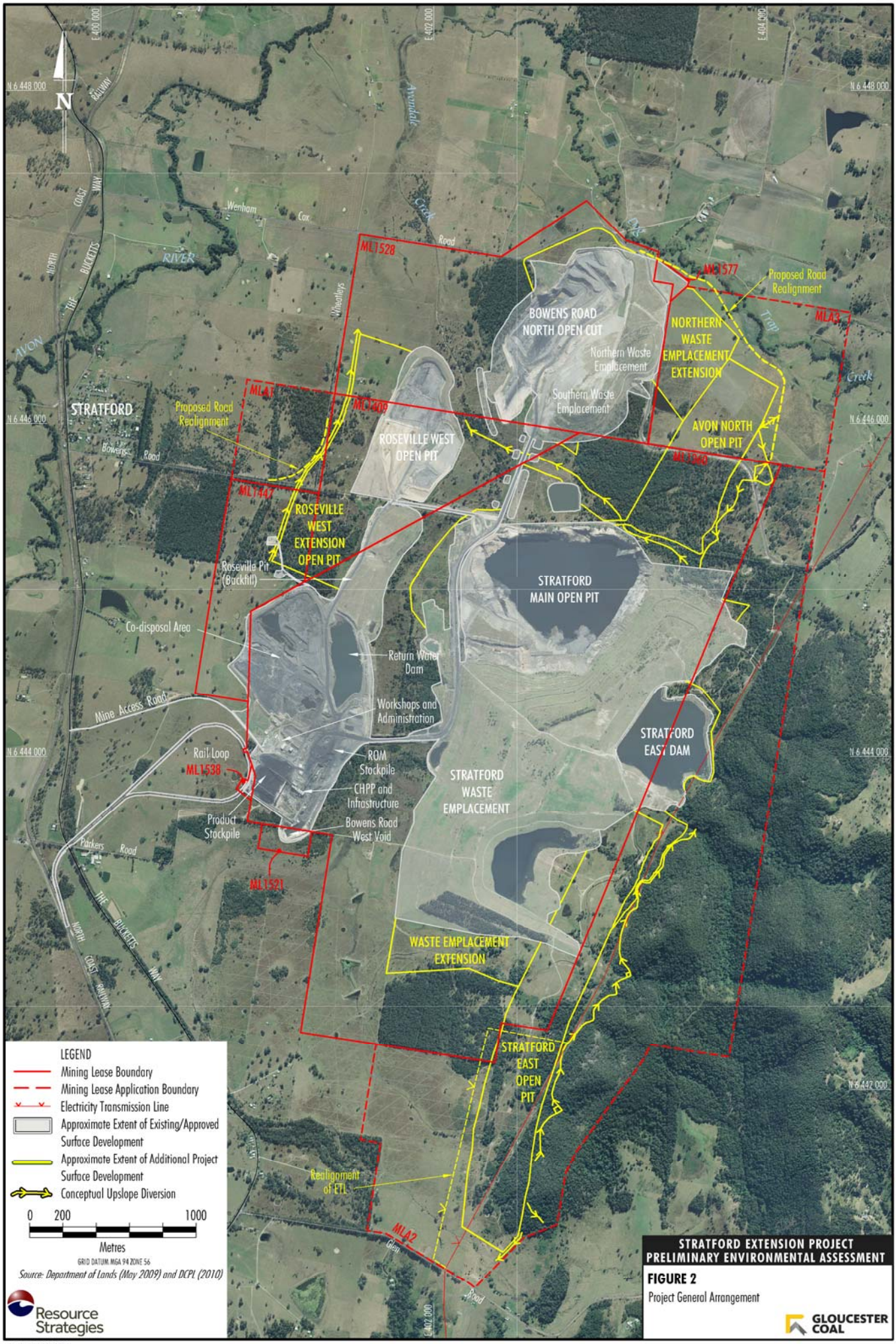
Seven mining leases (MLs) cover the operations at the SMC (i.e. ML 1577, ML 1528, ML 1409, ML 1447, ML 1360, ML 1538 and ML 1521) (Figure 2). The Project extensions to the SMC would require additional Mining Lease Applications (MLAs) 1, 2 and 3 as shown on Figure 2.

The existing MLs and proposed MLAs exist wholly within land owned by GCL. GCL also owns large landholdings in the vicinity of the SMC and continues to acquire land surrounding the existing and proposed operations for development requirements and buffers to nearby privately owned residences (Figures 3a, 3b and 3c).

The Development Application Area[1] is provided in Attachment A and a Schedule of Lands is provided in Attachment B.

The Development Application Area is within the Gloucester Shire Local Government Area.

[1] Note the Development Application Area may be subject to change following further environmental assessment and mine planning studies conducted for the EIS.



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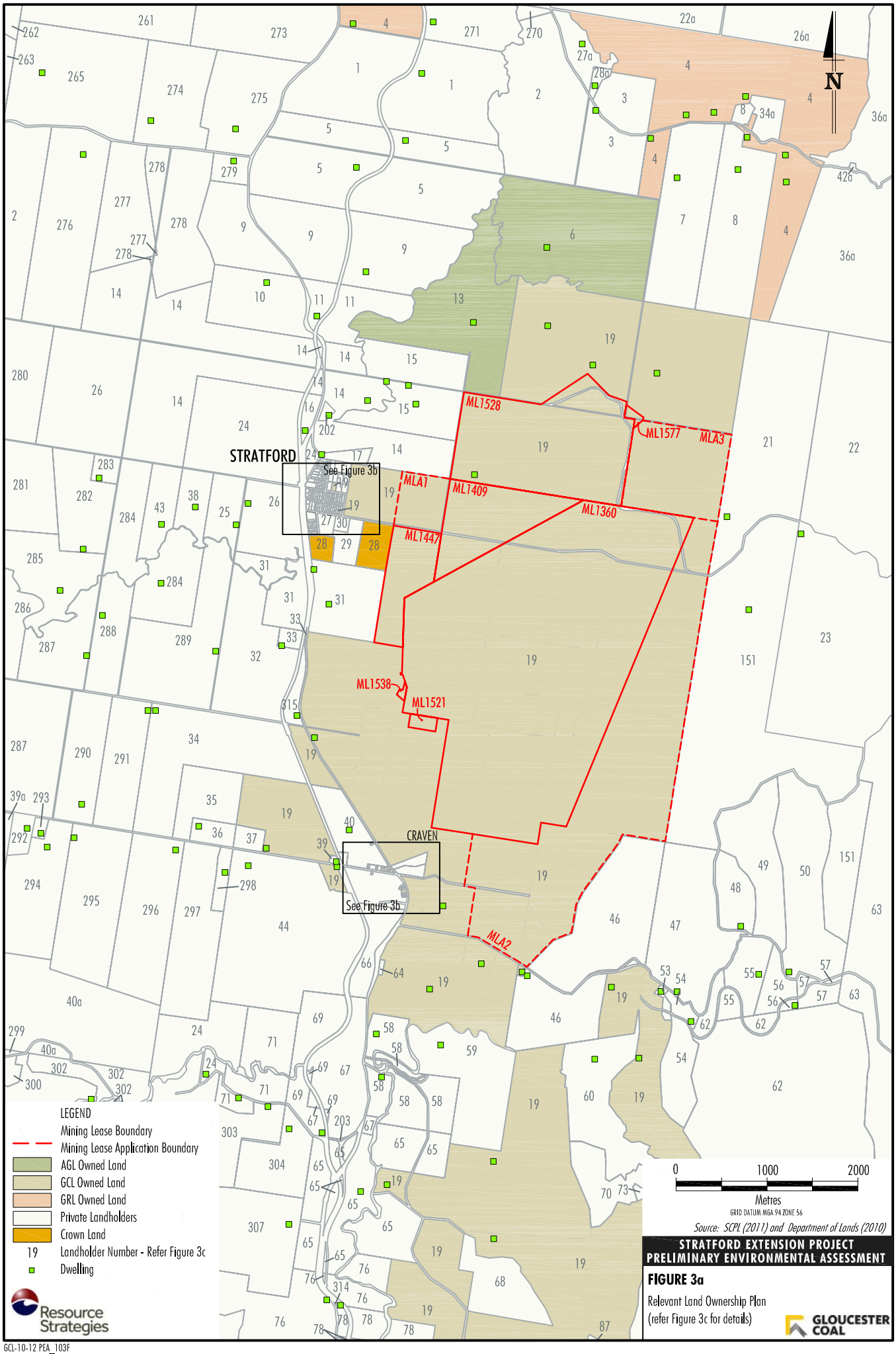

STRATFORD EXTENSION PROJECT
PRELIMINARY ENVIRONMENTAL ASSESSMENT

FIGURE 3a

Relevant Land Ownership Plan
(refer Figure 3c for details)

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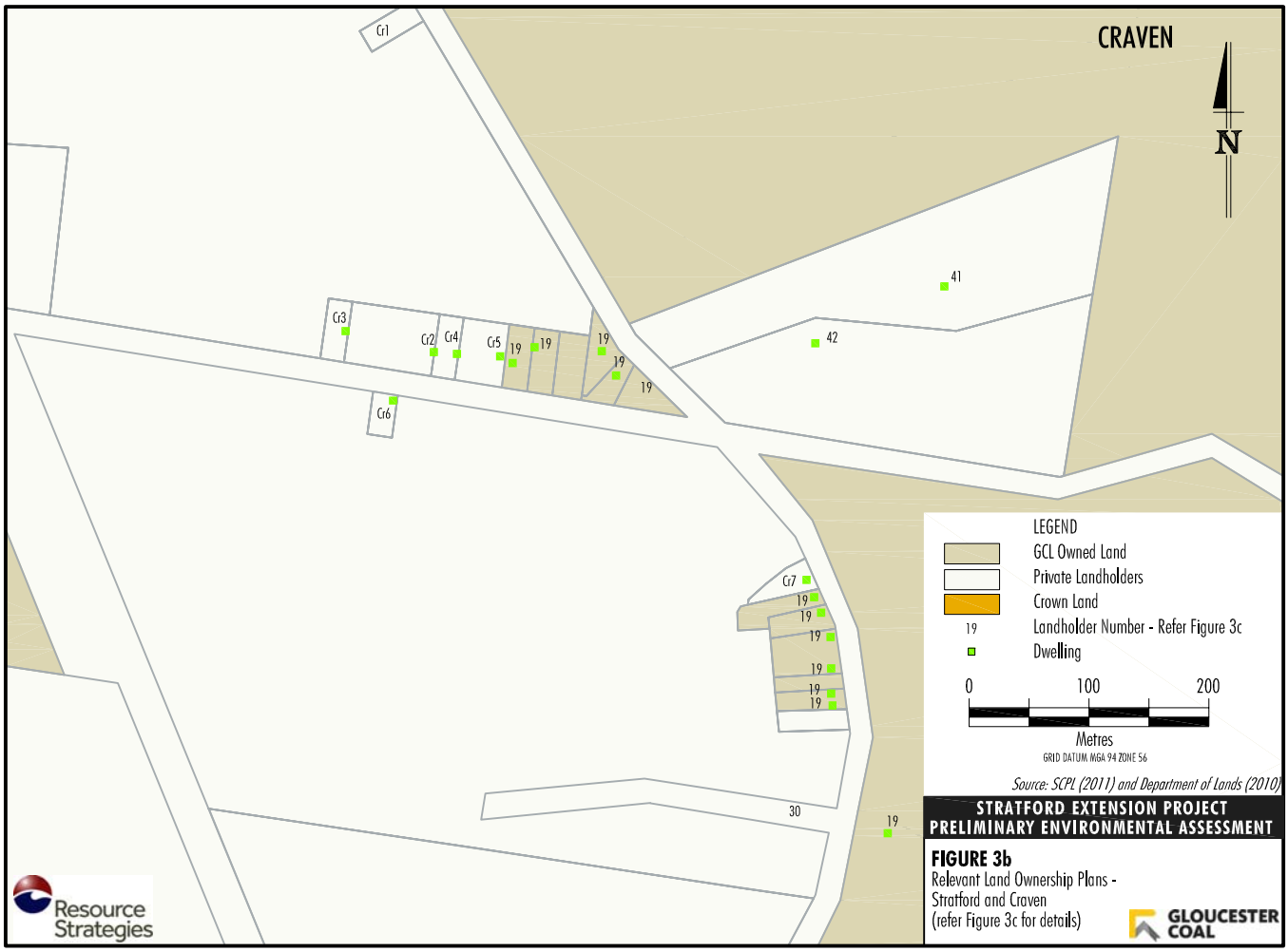

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1 Wendy Jane Fraser
2 Farley (Gloucester) Pty. Limited
3 D.J. & D.L. Rosenbaum Pty. Limited
4 Gloucester Resources Limited
5 Norman Edward Bignell
6 AGL Gloucester Le Pty Ltd in 70/100 Share & AGL Gloucester MG Pty Ltd in 30/100 Share as Tenants in Common
7 Mary Blanche Burrell
8 John Ernest Woodford & Marjorie Annette Woodford
9 Norman John Williams
10 Kenneth James Whatmore & Anne Grace Whatmore
11 "Brian Keith Walker, Lesley Jane Walker, Tyson Brian Walker & Lacey Maree Walker"
13 AGL Energy Limited
14 Allen James Wenham & Pamela Diane Wenham
15 GS & GL Falla Superannuation Pty Limited
16 Judith Helen Pickett
17 Darren James Fisher & Claire Louise Smith
19 Gloucester Coal Limited
21 Richard Charles Clarke & Carolyn Ann Clarke
22 Michael Burns & Leonie Therese Burns
23 Ross Lewis Bagnall
24 Geoffrey Lawrence Harris
25 Marisa Thompson
26 Kevin John Lowrey & Robyn Lowrey
27 The Council of the Shire of Gloucester
28 Crown Land
29 Edwin Dennis Ward & Rhonda Fay Ward
30 The State of New South Wales
31 Allan Stanley Isaac
32 Eliza Ann Ruth McIntosh & Ronald Keith McIntosh
33 William Joseph Battaglini & Jacklin Maree Battaglini
34 Graham Wesley Hall & Kim Lorraine Hall
35 Leo John Dillon & Isobel Robyn Dillon
36 Graham Lindsay Wallace & Marion Frances Wallace
37 Timothy James Worth
38 Paul Michael Johnson & Judith Anne Johnson
39 Paula Anne Standen
40 Leslie Allenby Blanch
41 Cathryn Louise Devereux
42 Douglas John Blanch
43 Vicki Colleen Moseley
44 Peter Michael Cross & Kylie Jane
46 Stanley Samuel Ellis
47 "David Charles Digges, Carolyn Denise Digges, Timothy Charles Hart & Elizabeth Mary Hart"
48 Marion Iris Rounsley
49 Yvonne Carter
50 Neil James Porter
51 Gloucester Printing Services Pty Ltd
53 William Charles Barnes & Cheryl Freda Barnes
54 Kenneth John Hughes & Carrysong Pty Limited
55 Allan James Hancock & Lynda Margret Hancock
56 Gerald McCalden & Patricia Brawdley McCalden
57 Pamela Brawdley Harrison
58 Douglas William Blanch & Evelyn Fay Blanch
59 Guy William Cassar & Cecile Elizabeth Cassar
60 Philip Weston Greenwood
62 Dorothy May Beeston
63 National Parks and Wildlife Service
64 Gloucester Shire Council
65 Noeline Elizabeth Weismantle
66 Lennard Charles Rogerson
67 Ian Robert Bowen
68 Julie Dawn Lyford
69 Ralph Hooper & Bronwyn Ann Bartholmew
70 Robert George Knight
71 Anthony Douglas Burnet & Robyn Annette Burnet
73 Rodney John Pearce & Anne Jeanette Pearce
76 Garry Bruce Grant & Terry Paul Grant
78 Barry Anthony Eves
87 Pacific Property Investments Ltd
151 Trevor William Wadland & Yvonne Louise Carter
202 Paul Phillip Wenham
203 Samuel Taylor
261 Frank Murray Hooke & Susan Elizabeth Hooke
262 Noel Albert Davis & Elizabeth Therese O'Sullivan
263 Patrick Michael Ryan
265 Hans Joran Stenstrom & Janete Stenhouse Stenstrom
270 Jason David Collins & Michelle Isobel Barrett
271 William Alexander Tomb
273 Baker Place Investments Pty Limited & Dr PW Brady Pty Limited
274 Warren Neil Wilson & Colleen Therese Wilson
275 Pace Farm Pty Limited
276 Alan Luscombe & Carol Luscombe
277 John William Farley
278 Mark Anthony Campbell & Roseleen Linette Campbell
279 John Donald Cullum & Rachel Anne Cullum
280 Clifford John Bramley & Terri Louise Bramley
281 Colin William Lewis & Lesley Ann Lewis
282 Peter Stephen Ross
283 Janet Nolan
284 Alec Gregory Perrin & Noreen Nita Jean Perrin
285 Marshall Leon Carter & Theresa Kathleen Carter
286 Gerard Roland Burley
287 Dorothy Kay Sinderberry & Carole Martha Rinkin
288 Alec Gregory Perrin
289 Eliza Ann Ruth Mcintosh
290 Anne Frances Ryan & Darcy Tordoff
291 Trevor Allan Crawley & Coleen Dawn Crawley
292 James Reginald Fisher & Rhonda Patricia Fisher
293 Kerry Elizabeth Braunton
294 Gregory Vincent Morcom & Karen Morcom
295 William John Bush & Danielle Elizabeth Bush
296 Peter Geoffrey Watson & Heather Irene Watson
297 William Marten Bosma
298 Eric Allan Yates
299 Malcolm Ronald Lee
300 Bevan Douglas Hokin & Di Hokin
302 Edwin John Walton & Wendy Walton
303 JSTC Newcastle Pty Limited
304 Ernie Danzil Abeysekera & Sharee Ann Abeysekera
307 Graham John Wolfenden & Rosalind Mary Wolfenden
314 Dataphone Pty Ltd
315 Kenneth Bruce Bagnall
316 Country Rail Infrastructure Authority
22a R. O. Sansom & Son Pty. Limited
26a Edward John Mckinley & Shirley June Mckinley
27a Douglas Robert Maclean & Janette Ann Maclean
28a Peter Stuart Jackson & Beverley Clair Jackson
34a Bernard Philip Tresidder
36a Anthony Stanford Berecry
39a Woods Road Pty Ltd
40a Howard Kerr Williams & Margaret Russell Williams
42a William Rainsford Ribbons
Cr.1 William Deane Wood
Cr.2 Patricia May Black
Cr.3 Yvonne Frances Holden
Cr.4 Susan Frances Hoppe
Cr.5 John Bruce Punchard & Kerry Lewise Green
Cr.6 Rodger Malcolm Boorer
Cr.7 David Robert Pryce-Jones
S1 Gary Owen Rees
S10 Louise Frances Germon
S11 Adam John Glew
S12 Grant James Mitchell & Cecily Maree Mitchell
S13 Ian Mark Wells & Jody Ann Wells
S14 Kathleen Edith Bignell
S15 Minister for Education
S17 Geoffrey Fyson Slack
S18 Keith Matthew John Whittall & Janelle Fiona Whittall
S19 Rodney Lawrence Carroll
S2 Gay Owen Rees
S20 Sandra Ellen McGrath
S21 Marie Anne Adams
S22 Telstra Corporation Limited
S23 Marie Fay Bartlett
S24 David Carl John Mavay
S25 The Trustees of Church Property for the Diocese of Newcastle
S26 Margaret Elaine Young
S27 Terry Leonard Brown & Elizabeth Florence Brown
S28 David Charles Morris & Yvette Marie Morris
S29 Robert Charles Bagnall & Lyndell Joy Bagnall
S3 Irene Myrtle Yeatman
S30 Kam Daryl Baker
S31 Stanley James Taylor
S32 Peter Kelly
S33 "Greta Alexandra Langtry, Jennifer Gilbert & Neville Bertram Gilbert"
S34 Edward George Ashby
S35 Mark Rodgers & Korinna Yvette Bekker
S36 Kenneth George Platt & Ruth Lynne Platt
S37 Malcolm Neville Pryor & Helen Leone Pryor
S38 Stephen Russell Kirkman
S39 Lizabeth Joye Nicholls & Raymond John Husband
S4 Belinda Maree Grady & Terry Raymond Grady
S40 Peter John Curtis
S41 Desmond Brice Mcclure & Coral Ann Aplin
S42 Stephen Ronald Murray & Wilma Joy Murray
S43 Heather Anne Smith
S44 Ann Elizabeth Flack
S45 "Daniel John Keywood, Dale Martin Keywood, Kelly Hazel Keywood & Amanda Margaret Hawkins"
S46 Stephen Thomas Parker & Jean Maree Parker
S47 John Victor Potts
S48 James Bryson Farley & Glenda Laurel Farley
S49 Lindy Jayne Blanch
S5 Christopher James Britnell
S50 Sheryl Fay Vanderdrift & Lindy Jane Blanch
S51 Gregory John Trenholme
S52 Ronald John Farley & Theresa Jane Barry
S53 Trevor Arthur
S54 Scott Anthony Adams
S55 "Beryl Veronica Mostyn in 1/2 Share, Beryl Veronica Mostyn & Tony James Mostyn in 1/2 Share"
S56 Graham John Collins & Elizabeth Collins
S57 Mavis Jean Gam
S58 Marilyn Dorothy Harrigan
S59 Terry Raymond Grady & Belinda Maree Grady
S6 Gary Wayne Threadgate & Julie Frances Threadgate
S7 Raymond James Cawley & Lucinda Cawley
S8 Neville Charles Forbes
S9 Peter John Greenham & Beverley May Greenham

Source: SCPL (2011) and Department of Lands (2010)

STRATFORD EXTENSION PROJECT
PRELIMINARY ENVIRONMENTAL ASSESSMENT

FIGURE 3c
Relevant Land Ownership List

Resource Strategies

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2.2 LAND USE AND BUILT FEATURES

The Development Application Area is located in a rural area characterised by cattle grazing for beef and dairy products on native and improved pastures. Additional land uses in the vicinity of the Project include rural residential, National Park/Nature Reserve recreational areas, mining and residential development in the villages of Stratford and Craven. Coal resource and coal seam gas development is also undertaken in the area. The majority of the Development Application Area has been cleared as part of past land use practices.

Existing and/or approved development within and immediately surrounding the Development Application Area includes:

- electrical transmission lines;
- mining and energy resource developments;
- Gloucester, and townships of Stratford and Craven;
- The Bucketts Way, Wenham Cox Road, Bowens Road and other minor roads;
- The North Coast Railway and Stratford Rail Loop; and
- the AGL Gloucester Gas Project infrastructure, approved within the heavy industrial zoned area, located adjacent SMC's site access road.

The operational and approved mining and energy resource development in the vicinity of the Development Application Area include:

- the existing approved SCM and BRNOC;
- DCM, approximately 20 km south;
- AGL Gloucester Gas Project, immediately surrounding and within the Development Application Area; and
- GRL coal exploration activities.

2.3 TOPOGRAPHY AND WATER RESOURCES

The topography of the area in and immediately around the Development Application Area is characterised by a north-south oriented linear ridge on the east transitioning to undulating lowlands and valley floor floodplains towards the west, which form part of the Gloucester Valley.

Open cut mining at the SMC has modified the topography within the Development Application Area historically. Modified landforms from mining operations to date within the Development Application Area include the BRNOC, Roseville West and Stratford Main open pits and the Northern, Southern and Stratford Waste Emplacements (Figure 2).

The ridge line to the east of the Development Application Area rises to 475 m Australian Height Datum (AHD), and is moderately to steeply sloping and mostly timbered, although a large percentage of this ridge has been cleared historically. The elevation of the valley floor within the Development Application Area is 115 m AHD.

The local hydrology of the Development Application Area comprises a number of drainage lines and creeks flowing west and north-west towards the Avon River. The majority of the Development Application Area is within the Avondale Creek catchment, which flows into Avon River. As the drainage lines within the Development Application Area have relatively small catchments, they typically exhibit low to zero flow for extended periods during dry weather, while heavy rainfall events result in short duration, high flow events.

Groundwater within the Development Application Area occurs predominantly within coal seams and is recharged from overlying colluvium. The direction of groundwater flow is from the south-east to the north-west and the main groundwater discharge zones are Avondale and Dog Trap Creeks and Avon River.

A groundwater divide is located between the Stratford Main Pit and the BRNOC (SCPL, 2006).

2.4 ENVIRONMENTALLY SENSITIVE AREAS

A preliminary investigation of environmentally sensitive areas of State significance (as defined in the *State Environmental Planning Policy (State and Regional Development) 2011* [State and Regional Development SEPP]) with respect to the Project has identified the following:

- The Development Application Area is not within coastal waters of the State.
- No lands protected or preserved under *State Environmental Planning Policy No. 14 - Coastal Wetlands* or *State Environmental Planning Policy No. 26 - Littoral Rainforests* occur within the Development Application Area.

- No lands reserved as an aquatic reserve under the NSW *Fisheries Management Act, 1994* or as a marine park under the NSW *Marine Parks* Act, 1997 occur within the Development Application Area.
- No lands within a wetland of international significance declared under the Ramsar Convention on Wetlands or lands within a World Heritage area declared under the World Heritage Convention occur within or near the Development Application Area.
- No lands identified in an Environmental Planning Instrument as being of high Aboriginal cultural significance or high biodiversity significance have been identified within the Development Application Area at this stage. Further investigations would be undertaken as a component of the EIS.
- No lands reserved under the NSW *National Parks and Wildlife Act, 1974* occur within the Development Application Area.
- No lands, places, buildings or structures listed on the State Heritage Register under the *Heritage Act, 1977* occur within the Development Application Area.
- No lands reserved or dedicated under the NSW *Crown Lands Act, 1989* for the preservation of flora, fauna, geological formations or for other environmental protection purposes have been identified within the Development Application Area. Further investigations would be undertaken as a component of the EIS.
- No lands declared as critical habitat under the NSW *Threatened Species Conservation Act*, *1995* or *Fisheries Management Act, 1994* occurs within the Development Application Area.

3 PROJECT DESCRIPTION AND JUSTIFICATION

3.1 PROPONENT

The proponent for the Project is SCPL (ABN: 26 064 016 164), a wholly owned subsidiary of GCL. The registered office of SCPL is:

Stratford Coal Pty Ltd
Level 7, 167 Macquarie Street
SYDNEY NSW 2000
Phone: (02) 9220 9900

Further information on the proponent and its coal mining operations can be found at:

http://www.gloucestercoal.com.au/

3.2 PROJECT DESCRIPTION

The Project is a proposed continuation and extension of open cut mining operations at the SMC for an additional operational life of approximately 11 years.

An indicative Project general arrangement is shown on Figure 2.

As stated in Section 1.3, the Project would include all activities approved and permitted pursuant to the existing SCM and BRNOC Development Consents.

It is proposed to surrender the SCM and BRNOC Development Consents if the Project is approved with conditions satisfactory to the Proponent.

Table 1 provides a summary of activities associated with the existing SMC and the Project.

Additional details of each of the main Project components are discussed below.

Mining Operations

As described in Table 1, extension of open cut mining at the SMC would include:

- completion of mining within the BRNOC for the first year of the Project;
- an extension to the current Roseville West Pit (Roseville West Extension open pit) workings in the western and southern directions;
- an additional open pit (Avon North) located to the north-east of the Stratford Main Pit;
- an additional open pit (Stratford East) located on the south-eastern margin of the site; and
- opportunistic recovery of rejects from the co-disposal emplacement area for re-processing.

Conventional open pit mining methods involving drill and blast, truck and shovel extraction with on-site processing would continue to be used for the Project. In addition recovery of rejects from the co-disposal emplacement area would be undertaken.

Table 1
Project Summary

Development Component	Approved Stratford Mining Complex	Stratford Extension Project
Life of Mine	• Mining to end of 2013. • Processing of ROM coal and export of product coal to 2019.	• Additional 11 years of mining to 2024. • Additional 5 years of processing to 2024.
Life of Mine ROM Coal Production	• Total life of mine up to 25.6 million tonnes (Mt) (SCM). • Total life of mine up to 5.4 Mt (BRNOC).	• Revised total life of mine up to approximately 52.2 Mt (additional 21.2 Mt)[1].
Annual ROM Coal Production Rate	• Up to 2.1 Mtpa (SCM). • Up to 1 Mtpa (BRNOC).	• Up to 2.6 Mtpa.
Mining Method	• Open cut mine, extracting thermal and coking coal for processing and supply to market.	• No change.
Open Cut Mining Areas	• Stratford Main Pit, Parkers/Bowens Road West Pit, Roseville Pit, Roseville Extended Pit, Roseville West Pit, BRNOC and co-disposal area.	• Roseville West Extension, BRNOC, Avon North and Stratford East open pits and co-disposal area.
Coal Processing Rate	• CHPP processing of up to approximately 4.3 Mtpa of ROM coal (from SMC and DCM).	• CHPP processing of up to approximately 5.6 Mtpa of ROM coal (from SMC and DCM).
Operational Workforce	• Up to 110 employees (SCM). • Approximately 15 employees (BRNOC).	• Up to approximately 250 employees (additional 125 employees).
Hours of operation	• Mining – 7.00 am to 10.00 pm (SCM). – 7.00 am to 7.00 pm (BRNOC). • CHPP – 24 hours per day, seven days per week. • Rail – 24 hours per day, seven days per week (Coal loading and export trains). – 7.00 am to 10.00 pm (Duralie Shuttle Train)[2].	• Mining – 7.00 am to 10.00 pm (Roseville West Open Pit and co-disposal reclaim). – 24 hours per day (Stratford East and Avon North). – 7.00 am to 7.00 pm (BRNOC). • CHPP – operating hours unchanged from approved SMC. • Rail – operating hours unchanged from approved SMC.
CHPP Reject Emplacement Areas	• Deposition within Stratford Main Pit in accordance with SCPL's *Life of Mine Reject Disposal Plan*.	• Rejects to continue to be deposited in the Stratford Main Pit and the future Avon North void in accordance with existing approved procedures.
Waste Rock Emplacement (including backfill)	• Combination of in-pit (including backfill) and out-of-pit waste emplacement.	• Additional in-pit (including backfill) and out-of-pit waste emplacement areas.

Table 1 (Continued)
Project Summary

Development Component	Approved Stratford Mining Complex	Stratford Extension Project
Total Waste Mined	• Approximately 82 million bank cubic metres (Mbcm) (SCM). • Approximately 11.6 Mbcm (BRNOC).	• Revised total life of mine to approximately 252 Mbcm (additional 158 Mbcm)[3].
Mine Fleet	• Excavators, haul trucks, dozers, front end loaders, water trucks, graders, scrapers, drills.	• Equipment type generally unchanged relative to the combined SCM and BRNOC fleet albeit with some additional items and noise attenuated models generally.
General Infrastructure	• Access roads, electricity supply and distribution, rail loop, CHPP, train loading and unloading infrastructure, ROM coal stockpiles, coal handling equipment, diesel storage, administration, workshop, stores and ablution buildings, heavy vehicle servicing, parking and washdown facilities.	• Continued use of existing approved infrastructure. • Realignment of 132 kV power line. • Realignment of Bowens Road/Wheatleys Road and Wenham Cox Road.
Rail Unloading/Loading Facilities	The rail unloading and loading system comprises: • an unloading facility including rail unloading bin and unloading conveyors to the ROM pad; • a 2.9 km rail loop with capacity for two trains to be on the loop at one time; and • a train loading facility including rail loading bin (receiving product coal from the product coal conveyor) and loading chute, and associated rail loading conveyor.	• Continued use of existing approved rail facilities.
Duralie Shuttle Train	• Average of four trains per day. • Train length 600 m.	• Unchanged from approved SMC.
Product Coal Trains	• Average of 2.5 trains per day. • Train length up to 1,300 m.	• Increase in the number of product coal trains in line with product coal production rate increase.
Water Management	• Separation of undisturbed area runoff from disturbed area runoff. • Mine water demand is met from runoff recovered from mine operational areas, waste emplacements, CHPP rejects disposal areas (i.e. Stratford Main Pit) and open pit dewatering. • Capture and on-site containment of mine water, consisting of any groundwater inflows and/or surface water collection in the open pits. • Design of sediment dams to contain runoff generated from the 1 in 20 year, 72 hour rainfall event. • Irrigation of water from the Stratford East Dam on rehabilitated waste emplacements that drain directly to mine water storages.	• Water management concepts generally unchanged. Final void water storage subject to a review of the site water balance and other hydrological studies.

1 No additional ROM coal to be mined from BRNOC beyond currently approved amounts. 0.3 Mt of ROM coal to be mined at BRNOC during Year 1 of the Project is included in the approved BRNOC amount of 5.4 Mt.

2 A request for approval to extend Duralie Shuttle Train paths to 2.00 am (i.e. 7.00 am to 2.00 am) has been made.

3 No additional waste to be mined from BRNOC beyond currently approved amounts. 0.2 Mbcm of waste to be mined at BRNOC during Year 1 of the Project is included in the approved BRNOC amount of 11.6 Mbcm.

Provisional design of the additional open pit development areas indicates:

- the Roseville West extension open pit would be approximately 1.5 km long, 650 m wide and 150 m deep;
- the Avon North open pit would be approximately 1.1 km long, 380 m wide and 160 m deep; and
- the Stratford East open pit would be approximately 2.7 km long, 350 m wide and 200 m deep.

As the Project includes additional mining areas, additional mining fleet items would be required. SCPL would manage the sequencing of operational open pits to make best use of available mining equipment. For example, once mining ceases at BRNOC the fleet could be transferred to the Roseville West Extension open cut.

The maximum Project ROM coal production rate would be approximately 2.6 Mtpa and the estimated life of mine ROM coal production would be 21.5 Mt (including 0.3 Mt of approved ROM coal from BRNOC).

Waste Rock Management

Approximately 158 Mbcm of additional waste rock would be mined as part of the Project with an approximate maximum annual waste rock production rate of approximately 19 Mbcm.

It is expected that the majority of Project waste rock would have similar geochemical characteristics as the existing waste rock at the SMC that has been historically assessed as benign.

A waste geochemistry assessment would be conducted for the EIS.

Waste rock management would involve the same methods used at the SMC and would include partial backfilling of the SCM Main Pit (the SCM Main Pit would also be backfilled with rejects), extension of the northern and southern ends of the Stratford Waste Emplacement, extension of the Northern Waste Emplacement, and in-pit placement. The entire BRNOC and SCM Main pit would be backfilled with waste rock (BRNOC) or waste rock and rejects (SCM Main Pit).

The Avon North open pit would be partially backfilled with rejects and waste rock, and the Stratford East and Roseville West Extension pit would be partially backfilled with waste rock.

Coal Handling and Preparation Plant

The existing CHPP and associated infrastructure is suitable to accommodate the proposed increase in ROM coal handling and processing.

CHPP Rejects Management

Additional CHPP rejects resulting from processing additional ROM coal would continue to be disposed within the Stratford Main Pit and the future Avon North void generally in accordance with the approved *SCM Life of Mine Reject Disposal Plan* (SCPL, 2009). CHPP rejects would be the subject of geochemical investigations with management methods (e.g. lime application) to be developed accordingly. Regular water quality monitoring, including pH measurements, would continue as part of the Project.

Rail Loading and Unloading

The rail unloading and loading conveyor systems are located at the CHPP. The systems allow for unloading of DCM ROM coal for processing at the CHPP, and loading of blended SCM, BRNOC and DCM coal for transport to domestic or export markets.

The existing rail infrastructure at the SMC is suitable to accommodate the increase in coal production. There would be a minor increase in train movements in line with the product coal production rate increase. No significant changes to the method of product coal loading or DCM coal unloading are proposed.

Life of Mine

The mining life would be extended to allow for an additional 11 years of mining (to 2024) and an additional 5 years of processing (to 2024).

Operational Hours

As part of the Project, it is proposed that processing activities would continue to be undertaken 24 hours/day, 7 days/week. The proposed operational hours are outlined in Table 2.

Table 2
Proposed Operational Hours

	Existing Approved	The Project
Mining	• SCM (Roseville West) 7.00 am to 10.00 pm. • BRNOC 7.00 am to 7.00 pm.	• Roseville West Open Pit and co-disposal area unchanged. • Avon North and Stratford East Open Pits 24 hours. • BRNOC unchanged.
Rail Movements	• Export 24 hours/day, 7 days/week.	• Unchanged.
	• DCM trains 7.00 am to 10.00 pm[1].	• Unchanged[1].
	• Two trains restricted on the loop simultaneously at night-time.[2]	• No restrictions.
CHPP	• 24 hours/day, 7 days/week.	• Unchanged.

[1] Shuttle train operating hours may be extended until 2 am (i.e. 7 am to 10 pm) with the approval of the Director-General, in accordance with the DCM Project Approval.

[2] Condition 6 of Schedule 3 of DA 23-98/99 states:

Unless the Director-General agrees otherwise, the Applicant shall ensure that the Stratford rail loop is only occupied simultaneously by two trains at night on:

(a) No more than 40 times in a calendar year before the end of 2013;

(b) No more than 25 times in a calendar year from the start of 2014; and

(c) No more than once a week.

Water Supply and Management

The SMC has an integrated water management strategy which includes the following key components:

- separation of undisturbed area runoff from disturbed area runoff;
- collection and reuse of surface runoff from disturbed areas (including mining pre-strip areas, waste emplacements and haul roads);
- design of sediment dams to contain runoff generated from the 1 in 20 year, 72 hour rainfall event;
- capture and on-site containment of mine water, consisting of any groundwater inflows and/or surface water collection in the open pits;
- reuse of captured and contained mine water for dust suppression and CHPP supply; and
- irrigation on rehabilitated areas which drain directly to mine water storages.

It is expected that this strategy would remain generally unchanged for the Project.

Mine water supply storages include the Return Water Dam, the Stratford East Dam and the Stratford Main Pit.

The water storage capacity of the Stratford Main Pit would gradually reduce over time, as a result of continued deposition of CHPP rejects and waste rock. To compensate for this, water will be pumped temporarily to the BRNOC open pit before being transferred to the Avon North open pit.

The Return Water Dam would be mined-through by mining of the Roseville West Extension open pit. To compensate for this, the Bowens Road West (Parker's) Pit would be used as a replacement for the Return Water Dam.

The Stratford East Dam would be raised to increase the storage capacity. In addition the storage capacity of the co-disposal dam may be increased.

Increased use of irrigation on rehabilitation areas may also be proposed to increase the capacity for disposal of excess mine water.

As part of the EIS, the existing site water balance model for the SMC will be updated to incorporate the Project.

Power Supply

No significant changes to the existing power supply or on-site reticulation system would be proposed as the current infrastructure has enough capacity to provide power for the relevant extensions.

It is expected that the power usage would increase in proportion with the proposed increase in the CHPP throughput.

Other Infrastructure

Due to the mining of the Stratford East open pit, a realignment of a 132 kV power line running parallel on the eastern side of the Stratford East open pit would be required in consultation with TransGrid (Figure 2).

Realignment of Bowens Road/Wheatleys Road and Wenham Cox Road would be required in consultation with the Gloucester Shire Council (Figure 2).

The Project also includes other associated ancillary infrastructure, plant, equipment and activities.

Employment

The Project would facilitate the continued employment of the existing 125 employees associated with the SMC and, during peak activities, would employ an additional 125 employees.

3.3 PROJECT JUSTIFICATION OVERVIEW

Alternatives Considered

Alternatives to the proposed location, scale, mining methods, mining and processing rates and product transportation were considered by SCPL in the development of the Project description. An overview of the alternatives considered is provided in the points below:

- **Project Location** – the location of the Project is determined by the presence of coal seams able to be economically mined in the vicinity of the SMC. This location also maximises the use of SCPL's existing CHPP facilities at the SMC and provides for the continuation of mining operations in the vicinity of historically active mining areas (i.e. thereby potentially minimising new disturbance areas).
- **Scale** – the Project mining reserve and resource is estimated to recover approximately 21.2 Mt of ROM coal. Resource definition and exploration drilling conducted by SCPL to date indicates that this is the optimum scale of the Project.
- **Mining method** – the location of the coal seam relative to the surface, coupled with the relatively complex geology of the coal seams (i.e. extensive faulting and associated repetition of stratigraphic units, steeply dipping coal seams and stratigraphic variations in coal quality) means that the coal resource is amenable to open cut mining methods and not well suited to underground methods.
- **Mining and processing rate** – SCPL has considered employing a larger mine fleet to facilitate a substantial increase in the annual production rate for the Project. However, in consideration of the relatively complex geology, which results in challenging mining conditions, SCPL has opted to continue to use medium-sized mining equipment, leading to a maximum production rate of 2.6 Mtpa.

Further consideration of alternatives to location, scale, methods and management would be undertaken as a component of comprehensive assessment undertaken for the EIS.

Project Justification

The Project would facilitate the continued employment of some 125 employees and the direct employment of up to an additional 125 employees during peak activities. The Project would also result in the continued payment of developer contributions to the Gloucester Shire Council, as well as Royalty payments to the State and other tax payments. In addition, SCPL is a positive contributor to the local and regional community and this would continue to at least 2024 under the Project.

Full justification of the Project on social and economic grounds, including consideration of the principles of Ecologically Sustainable Development, would be included in the EIS.

4 PLANNING CONSIDERATIONS

4.1 APPLICABILITY OF DIVISION 4.1 OF PART 4 OF ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

Approval for the Project will be sought under the State Significant Development provisions (Division 4.1) under Part 4 of the EP&A Act. The EP&A Act and EP&A Regulation set the framework for planning and environmental assessment in NSW.

Clause 8 of the State and Regional Development SEPP provides that the development is declared to be State Significant Development for the purposes of the Act if:

- the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and
- the development is specified in Schedule 1 or 2.

Pursuant to clause 7 of the Mining SEPP the Project is not permissible without development consent under Part 4 of the Act.

Item 5 of Schedule 1 of the State and Regional Development SEPP provides:

> ***5 Mining***
>
> *(1) Development for the purpose of mining that:*
> *(a) is coal or mineral sands mining …*

is State Significant Development for the purposes of the EP&A Act.

The Project is characterised as development for the purpose of coal mining (Section 3.2).

Given the above Development Consent for the Project will be State Significant Development and Development Consent will be sought from the NSW Minister for Planning and Infrastructure.

4.2 PLANNING PROVISIONS

State Environmental Planning Policies

The following State Environmental Planning Policies (SEPPs) may potentially be relevant to the Project:

- *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (Mining SEPP);
- *State Environmental Planning Policy No. 33 (Hazardous and Offensive Development)* (SEPP 33);
- *State Environmental Planning Policy No. 44 – Koala Habitat Protection;* and
- *State Environmental Planning Policy No. 55 (Remediation of Land).*

Local Environmental Plan

The SMC and the Project are located wholly within the Gloucester Shire Local Government Area and are zoned in areas RU1 (Primary Production), IN3 (Heavy Industrial) and E3 (Environmental Management) in the *Gloucester Local Environmental Plan 2010* (Gloucester LEP). The Gloucester LEP was gazetted on 11 June 2010 under the EP&A Act.

The Gloucester LEP is discussed further in Section 4.3.

Mining Act, 1992

SCPL will lodge MLAs separately within the Division of Resources and Energy (within the NSW Department of Trade and Investment, Regional Infrastructure and Services [DTIRIS]) for Project development areas outside existing MLs. Indicative MLA areas are shown on Figure 2.

Under the NSW *Mining Act, 1992*, environmental protection and rehabilitation are regulated by conditions included in all mining leases, including requirements for the submission of a Mining Operations Plan prior to the commencement of operations, and subsequent Annual Environmental Management Reports.

Under section 89K(1)(c) of the EP&A Act, if the Project is approved as State Significant Development, mining leases granted under the NSW *Mining Act, 1992* cannot be refused and is to be substantially consistent with any Development Consent granted under Division 4.1 of Part 4 of the EP&A Act.

Protection of the Environment Operations Act, 1997

The NSW *Protection of the Environment Operations Act, 1997* (PoEO Act) and the NSW *Protection of the Environment Operations (General) Regulation, 2009* set out the general obligations of the environmental protection for development in NSW.

The SCM currently operates under Environment Protection Licence (EPL) No. 5161 and the BRNOC currently operates under EPL No. 11745, both issued by the NSW Department of Environment, Climate Change and Water (DECCW) (now NSW Office of Environment and Heritage [OEH]) under the PoEO Act. The EPLs contain conditions which relate to emission limits, environmental monitoring and reporting.

It is expected that the Project would, if approved, necessitate a revision of both EPLs.

Under section 89K(1)(e) of the EP&A Act, if the Project is approved as State Significant Development, an EPL under the PoEO Act cannot be refused and is to be substantially consistent with any Development Consent granted under Division 4.1 of Part 4 of the EP&A Act.

Roads Act, 1993

If the Project is approved, SCPL would apply for necessary consents under section 138 of the NSW *Roads Act, 1993* associated with the realignment of Bowens Road/Wheatleys Road and Wenham Cox Road (Section 3.2).

Under section 89K(1)(f) of the EP&A Act, if the Project is approved as State Significant Development, consent under section 138 of the *Roads Act, 1993* cannot be refused and is to be substantially consistent with any Development Consent granted under Division 4.1 of Part 4 of the EP&A Act.

Commonwealth Environment Protection and Biodiversity Conservation Act, 1999

The Project would be referred to the Commonwealth Minister for the Environment for consideration as to whether the Project is a 'Controlled Action' and requires approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act).

Commonwealth Native Title Act, 1993

The Commonwealth *Native Title Act, 1993* (CNTA) provides for the recognition and protection of native title rights in Australia. The CNTA provides a mechanism to determine whether native title exists and what the rights and interests are that comprise that native title. The process is designed to ensure that Indigenous people who profess an interest in the land (or any part thereof) have the opportunity to express this interest formally, and to negotiate with the Government and the applicant about the proposed grant or renewal, or consent to access native title land.

The NSW *Mining Act, 1992* must be administered in accordance with the CNTA. The primary effect of the CNTA on exploration and mining approvals is to provide native title parties with a 'Right to Negotiate' about the grant and some renewals by governments of exploration and mining titles.

The CNTA, where applicable, would be complied with in relation to the granting and renewal of any necessary mining tenements for the Project.

4.3 PERMISSIBILITY OF THE PROJECT

Section 89E of the EP&A Act provides that development consent may not be granted under Division 4.1 of Part 4 if the development is *wholly* prohibited by an environmental planning instrument, but may be granted despite the development being *partly* prohibited by an environmental planning instrument.

The permissibility of the Project under the Gloucester LEP is described below.

The Gloucester LEP was gazetted on 11 June 2010 under the EP&A Act. The following subsections identify the provisions in the Gloucester LEP which have some relevance to the Project.

The majority of the land covered by the SMC MLs are within the RU1 Primary Production zone. The objectives of this zone are as follows:

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*

- *To minimise conflict between land uses within the zone and land uses within adjoining zones.*
- *To encourage eco tourism enterprises that minimise any adverse effect on primary industry production and the scenic amenity of the area.*

The Project is consistent with the objectives of RU1 Primary Production zone as:

- mining is a primary industry;
- the Project would not result in the fragmentation and alienation of resource lands;
- mine landforms would be progressively rehabilitated, including areas to be rehabilitated to pasture and agricultural production; and
- mining operations and nearby agricultural enterprises have co-existed since the SMC's inception and this would continue for the Project.

Under the Land Use Table for this zone, "open cut mining" is permissible with consent on lands zoned RU1 Primary Production.

The SCM rail loop, the CHPP/infrastructure area, the Bowens Road West void, the Return Water Dam and the co-disposal area are all within the IN3 Heavy Industrial zone. This zone also includes parts of MLs 1447 and 1360 and encompasses ML1538. The objectives of the IN3 Heavy Industrial zone are as follows:

- *To provide suitable areas for those industries that need to be separated from other land uses.*
- *To encourage employment opportunities.*
- *To minimise any adverse effect of heavy industry on other land uses.*

The Project is consistent with the objectives of IN3 Heavy Industrial as employment opportunities at the SMC would continue and the Project would include mitigation measures to minimise impacts on the environment.

Although "hazardous industries", "heavy industries" and "light industries" are all permitted with consent in IN3, since "mining" is not specifically mentioned, it is taken to be prohibited. However, the Gloucester LEP states:

> *A type of development referred to in the Land Use Table is a reference to that type of development only to the extent it is not regulated by an applicable State environmental planning policy. The following State environmental planning policies in particular may be relevant to development on land to which this Plan applies:*
> *…*
> *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*

In addition, Clause 4 of the Mining SEPP relevantly provides:

> ***4 Land to which Policy applies***
>
> *This Policy applies to the State.*

Clause 5(3) of the Mining SEPP gives it primacy where there is any inconsistency between the provisions in the SEPP and the provisions in any other environmental planning instrument (subject to limited exceptions).

Clause 5(3) relevantly provides:

> ***5 Relationship with other environmental planning policies***
>
> *(3) …if this Policy is inconsistent with any other environmental planning instrument, whether made before or after this Policy, this Policy prevails to the extent of the inconsistency.*

The practical effect of clause 5(3) for the Project is that if there is any inconsistency between the provisions of the Mining SEPP and those contained in the Gloucester LEP, the provisions of the Mining SEPP will prevail.

Clauses 6 and 7 of the Mining SEPP provide what types of mining development are permissible without development consent and what types are permissible only with development consent.

In this regard, clause 7(1) states:

> ***7 Development permissible with consent***
>
> *(1) Mining*
>
> *Development for any of the following purposes may be carried out only with development consent:*
>
> *(a) underground mining carried out on any land,*
>
> *(b) mining carried out:*
>
> *(i) on land where development for the purposes of agriculture or industry may be carried out (with or without development consent), or*
>
> (ii) *on land that is, immediately before the commencement of this clause, the subject of a mining lease under the Mining Act 1992 or a mining licence under the Offshore Minerals Act 1999,*
>
> *(c) mining in any part of a waterway, an estuary in the coastal zone or coastal waters of the State that is not an environmental conservation zone,*
>
> *(d) facilities for the processing or transportation of minerals or mineral bearing ores on land on which mining may be carried out (with or without development consent), but only if they were mined from that land or adjoining land,*
>
> ...

The word "mining" in the Mining SEPP is given an extended definition in clause 3(2) as follows:

> ***mining** means the winning or removal of materials by methods such as excavating, dredging, or tunnelling for the purpose of obtaining minerals, and includes:*
>
> *(a) the construction, operation and decommissioning of associated works; and*
>
> *(b) the stockpiling, processing, treatment and transportation of materials extracted, and*
>
> *(c) the rehabilitation of land affected by mining.*

All of SCPL's works and activities which would occur within the IN3 Heavy Industrial zone fall within the extended definition of "mining" contained in the Mining SEPP. Under the land use table for the IN3 zone, development for various types of industry are permissible with development consent. Thus, given that clause 7(1)(b)(i) of the Mining SEPP provides that development for the purposes of "mining" may be carried out with development consent on land where development for the purposes of industry may be carried out, it necessarily follows that all of SCPL's works and activities within the IN3 zone are permissible with development consent.

A short section of the existing SCM rail loop (near its juncture with the main line) is within the E3 Environmental Management zone. The objectives of this zone are:

- *To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.*
- *To provide for a limited range of development that does not have an adverse effect on those values.*
- *To conserve biological diversity and native vegetation corridors, and their scenic qualities, in a rural setting.*

It is considered that the Project is generally consistent with the zone objectives.

"Extensive agriculture" is permissible without development consent within the E3 zone. Clause 7(1)(b)(i) of the Mining SEPP provides that development for the purposes of "mining" may be carried out with development consent on land where development for the purposes of agriculture may be carried out with or without development consent.

The SCM rail loop falls within the extended definition of "mining" contained in the Mining SEPP on the ground that it is development for the purpose of transportation of materials extracted. It necessarily follows, therefore, that the use of the SCM rail loop within the E3 Environmental Management zone is permissible with development consent.

Accordingly, the Minister would not be precluded from granting approval under section 89E of the EP&A Act for the Project in respect of those parts of the Project land where mining is prohibited under the Gloucester LEP.

5 PRELIMINARY ENVIRONMENTAL ASSESSMENT

The following preliminary environmental assessment has been prepared to identify the key potential environmental issues associated with the construction and operation of the Project. This information has been prepared to assist the NSW Department of Planning and Infrastructure (DP&I) with the issuing of the DGRs for the Project under clause 3 of Schedule 2 of the EP&A Regulation.

This preliminary environmental assessment has drawn on:

- experience from key environmental management and impact assessment issues at the SMC;
- understanding of the local and regional context (Section 2) and the Project (Section 3);
- feedback from stakeholder consultation undertaken to date; and
- the outcomes from the preliminary assessment workshop.

In order to identify the key environmental issues of direct relevance to the Project, a preliminary assessment workshop was conducted at SCM on 7 December 2010.

The preliminary assessment workshop participants included representatives of SCPL, Heggies Pty Ltd (noise and blasting specialists), Gilbert & Associates Pty Ltd (surface water specialists) and Resource Strategies Pty Ltd. The findings of the workshop were reviewed by Assoc. Prof. David Goldney (fauna/biodiversity specialist) and Dr Noel Merrick (groundwater specialist).

The workshop involved the following steps:

1. **Identification of Potential Issues** – Consideration of how the project is likely to affect the physical or biological aspects of the environment; natural or community resources; environmentally sensitive areas; areas allocated for conservation purposes; and areas sensitive because of community factors.
2. **Identification of Key Potential Environmental Issues** – From the potential issues above, what are the key issues, considering the extent of the potential impacts; the nature of the potential impacts; and the potential impacts on environmentally sensitive areas.
3. **Preliminary Consideration of the Study Requirements** – Each of the key environmental issues identified above were considered with respect to the level and scope of assessment that would be required for the EIS.

The key environmental issues identified by the preliminary assessment workshop are provided in Table 3 along with a preliminary list of study requirements to address these issues. Recognised specialists will be commissioned to conduct the studies outlined in Table 3, and independent peer reviews will be conducted of key studies.

In addition to consideration of the key potential environmental impacts (Table 3), the following studies would be undertaken as a component of the EIS to address other potential impacts:

- non-Aboriginal heritage assessment;
- road transport assessment;
- rehabilitation strategy; and
- preliminary hazard analysis in accordance with SEPP 33.

Assessment of the key potential environmental issues and the other potential impacts identified above would include consideration of:

- existing environment using sufficient baseline data;
- potential impacts of all stages of the Project including any cumulative impacts;
- measures that could be implemented to avoid, mitigate, rehabilitate/remediate, monitor and/or offset the potential impacts of the Project; and
- contingency plans and/or adaptive management for managing any potentially significant residual risks to the environment.

All assessments of potential impacts would consider all applicable policies, guidelines and plans included in contemporary DGRs for major mining projects. Therefore, these policies, guidelines and plans have not been repeated within this document.

Table 3
Key Potential Environmental Issues and Required Level and Scope of Environmental Assessment

Key Potential Environmental Issues	Likely Extent and Nature of potential Impacts	Proposed Level and Scope of Environmental Assessment
Surface Water and Water Balance	• Potential impacts on Avon River, Avondale Creek and Dog Trap Creek as a result of open cut mining.	• Assessment of water quality and flow data for Avon River, Avondale Creek and Dog Trap Creek. • Assessment of salt loads and other contaminants from waste/CHPP rejects emplacement. • Modelling of potential surface water and groundwater levels. • Investigate expansion of existing irrigation scheme on rehabilitated areas. • Development of a site water balance.
Hydrogeology and Groundwater	• Potential impacts (i.e. drawdown, quality and recharge) of the Project on groundwater levels and groundwater dependent surface water features and ecosystems. • Potential groundwater related impacts on Dog Trap Creek alluvium.	• Modelling of potential impacts on the natural groundwater levels and flows. • Measures proposed to minimise impact on natural groundwater features and landholder water supply. • Assessment of potential surface water effects of potential leakage from Dog Trap Creek. • Assessment of potential cumulative impacts resulting from the Project and nearby developments and mines.
Blasting	• Potential structural damage and amenity impacts associated with the blasting procedures at the Project.	• Review of existing site blasting procedures and commitments. • Modelling and assessment of potential noise and vibration impacts as a result of blasting.
Aboriginal Cultural Heritage	• Potential impacts resulting from disturbance to places and items that are of significance to Aboriginal people.	• Assessment of impacts on items of Aboriginal heritage and Aboriginal cultural values in accordance with DECCW (2010) and NSW Department of Environment and Conservation (2005).
Flora	• Potential impacts resulting from vegetation clearance and modification.	• Assessment of potential impacts on critical flora habitats, threatened flora species, populations, ecological communities and native vegetation. • Measures to ensure that there is no net loss of flora values in the area in the medium to long term, including a comprehensive vegetation offset strategy.
Fauna	• Potential impacts resulting from fauna habitat clearance and modification.	• Assessment of potential impacts on critical fauna habitats, threatened fauna species, populations, ecological communities and native vegetation. • Measures to ensure that there is no net loss of fauna values in the area in the medium to long term.

Table 3 (Continued)
Key Potential Environmental Issues and Required Level and Scope of Environmental Assessment

Key Potential Environmental Issues	Likely Extent and Nature of potential Impacts	Proposed Level and Scope of Environmental Assessment
Noise	• Potential impacts resulting from Project related mining activities as well as road and rail movements.	• Modelling and assessment of potential noise impacts as a result of mining operations, including road and rail traffic. • Assessment of potential cumulative impacts resulting from the Project and nearby developments and mines. • Assessment of effectiveness of existing management measures. • Consideration of previous noise mitigation commitments.
Air Quality	• Potential impacts resulting from Project activities. • Potential greenhouse gas emissions resulting from the combustion of diesel fuel	• Modelling and assessment of potential air quality impacts. • Assessment of potential greenhouse gas emissions (including scope 1, 2 and 3 emissions). • Assessment of potential cumulative impacts resulting from the Project and nearby developments and mines. • Assessment of potential cumulative impacts resulting from the Project and nearby developments and mines.
Land Resources	• Potential impacts on landuse/capability resulting from the Project. • Potential impacts on soils and erosion potential resulting from the Project.	• Estimate of the productivity of agricultural land pre- and post-mining. • Assessment of the potential impacts associated with transport, handling and disposal of overburden waste materials. • Investigation of measures to avoid, mitigate and/or remediate potential impacts on soil and land resources during operations and rehabilitation of the Project site.
Community Concerns	• Potential impacts on amenity (effects on tourism, loss of farming land, proximity to Stratford village), water quality (environmental), noise, air quality, health and transport.	• Development of a stakeholder engagement strategy. • Review of existing SCM community consultation committee. • Socio-economic assessment of potential impacts on the regional and NSW community and economy, including a cost-benefit analysis.
Positive impacts on the regional and NSW economy.	• Continued employment of approximately 125 personnel, including flow on effects to the regional and NSW economy. • Employment of approximately 125 additional personnel during peak periods. • Continued payment of royalties to the state and other tax payments.	• Socio-economic assessment of potential impacts on the regional and NSW community and economy, including a cost-benefit analysis. • Project justification, including consideration of alternatives, principles of ecologically sustainable development and the objects of the EP&A Act.

6 STAKEHOLDER CONSULTATION

6.1 CONSULTATION UNDERTAKEN TO DATE

Consultation undertaken to date in relation to the Project has included:

- The Conceptual Development Plan meeting with representatives of Industry and Investment NSW (I&I NSW) (now Division of Resources and Energy) in October 2010. In response to this meeting, I&I NSW wrote to the Department of Planning to state that the Project could progress to the Project Application stage.
- The existing SCM Community Consultative Committee (CCC) has been periodically briefed on the Project since 2006. SCPL provided an overview of the Project and a description of the key milestones in the assessment/planning phase in February 2011.
- Consultation with Aboriginal stakeholder groups through the Aboriginal Cultural Heritage Assessment process which commenced in August 2011.

6.2 STAKEHOLDER ENGAGEMENT PROGRAMME

A stakeholder engagement strategy has been developed for the Project. Key objectives of this programme are to:

- inform government and public stakeholders about the progress and nature of the Project;
- recognise and respond to local interest or concerns regarding the Project; and
- continue the ongoing dialogue between SCPL and stakeholders that has occurred since the inception of the SMC.

The programme includes the use of a variety of consultation mechanisms which in summary include:

- public exhibition of key documents (e.g. Project Application, Preliminary Environmental Assessment and EIS);
- continued consultation with the local community via the SCM CCC;
- provision of project information on the GCL website; meetings with the general community including Aboriginal groups, directly affected landowners and neighbouring developments (e.g. AGL Gloucester Gas Project and GRL's coal exploration activities);
- meetings with relevant government agencies; and
- community information brochures.

The consultation would include, but not necessarily be limited to, the following government agencies and authorities and private:

- DP&I;
- OEH (including the NSW Office of Water);
- Division of Resources and Energy (within DTIRIS);
- NSW Roads and Traffic Authority;
- Transgrid;
- Mid Coast Water;
- Gloucester Shire Council; and
- Commonwealth Department of Sustainability, Environment, Water, Population and Communities.

Consultation with the Aboriginal community would be conducted in consideration of the requirements of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010).

The issues raised and outcomes of the consultation programme would be reported in the EIS.

7 REFERENCES

Department of Environment and Conservation (2005) *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation.*

Department of Environment, Climate Change and Water (2010) *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.*

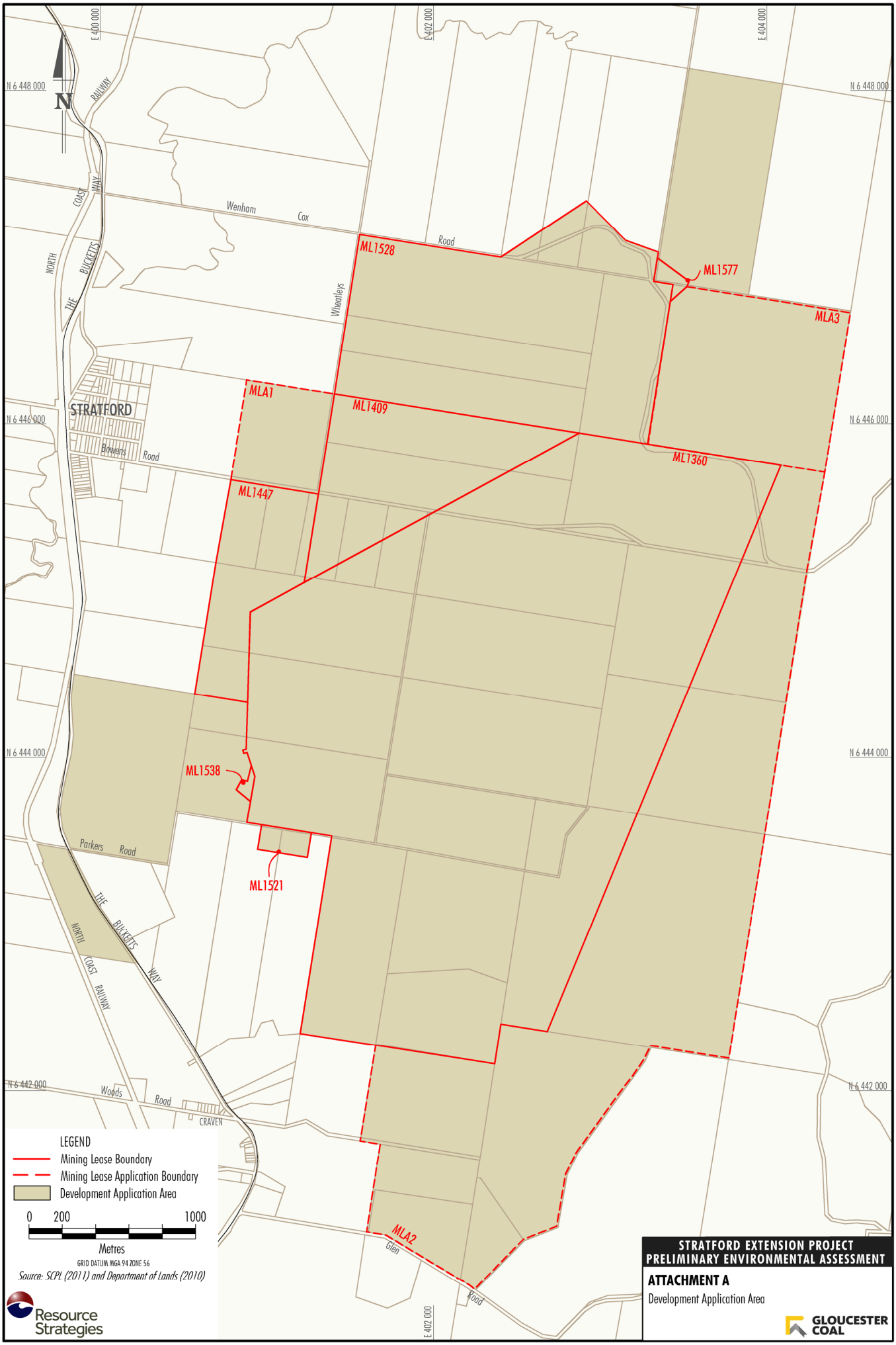
Duralie Coal Pty Ltd (2009) *Duralie Extension Project Environmental Assessment.*

Stratford Coal Pty Ltd (2009) *Life of Mine Reject Disposal Plan.*

Stratford Coal Pty Ltd (2006) *Stratford Coal Mine – Roseville West Pit Modification.*

ATTACHMENT A

DEVELOPMENT APPLICATION AREA



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ATTACHMENT B

SCHEDULE OF LANDS

Tenure Type	Lot Number	Deposited Plan Number
Freehold	59	979859
Freehold	1	241780
Freehold	74	979859
Freehold	2	241780
Freehold	1	997092
Freehold	1	531023
Freehold	41	979859
Freehold	71	979859
Freehold	58	979859
Freehold	56A	979859
Freehold	56B	979859
Freehold	56C	979859
Freehold	56D	979859
Freehold	56E	979859
Freehold	1	861278
Freehold	57	979859
Freehold	72	979859
Freehold	54	979859
Freehold	B	116316
Freehold	75	979859
Freehold	3	1062249
Freehold	73	979859
Freehold	1	194827
Freehold	52	979859
Freehold	70	979859
Freehold	293	137520
Freehold	69	979859
Freehold	11	1139127
Freehold	12	1139127
Freehold	1	194827
Freehold	4	1062249
Freehold	A	116326
Freehold	66	1008585
Freehold	1	116325
Freehold	79	979859
Freehold	772	826955
Freehold	1	778861
Freehold	2	778861
Freehold	64	979859
Freehold	Part of 45	979859
Freehold	Part of 8	1139127
Freehold	Part of 9	1139127
Freehold	Part of 10	1139127
Freehold	Part of 63	1093998
Freehold	Part of 62	1093998
Freehold (Private subdivision road reserves or owned by Gloucester Shire Council)	Road located within and between the above parcels of land	N/A