METROPOLITAN COAL

TRAFFIC MANAGEMENT PLAN

Peabody ENERGY

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Revision Status Register

Section/Page/ Annexure	Revision Number	Amendment/Addition	Distribution	DP&E Approval Date
All	TMP-R01-A	Original	DoP	-
All	TMP-R01-B	All Sections	DoP, CCC	-
All	TMP-R01-C	Additions to address CCC meeting outcomes	DoP	-
1.1	TMP-R01-D	Additions to address DoP comments	DoP	14 April 2011
All	TMP-R01-E	Amended to reflect Section 75W modification to trucking limits, minor amendments and formatting	DP&I	-
All	TMP-R01-F	Minor amendments and formatting following submission of the 2014 Annual Review and AEMR/Rehabilitation Report.	DP&E	25 August 2015

June 2015

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1 INTRODUCTION

Metropolitan Coal is a wholly owned subsidiary of Peabody Energy Australia Pty Ltd. Metropolitan Coal was granted approval for the Metropolitan Coal Project (the Project) under Section 75J of the New South Wales (NSW) *Environmental Planning and Assessment Act, 1979* (EP&A Act) on 22 June 2009 (the Approval). A copy of the Project Approval is available on the Peabody website (http:/www.peabodyenergy.com.au).

The Project comprises continuation, upgrade and extension of underground coal mining operations and surface facilities at Metropolitan Coal. The Approved underground mining Project layout is shown on Figure 1.

In March 2011, Metropolitan Coal submitted a Project Approval Modification Request to the NSW Minister for Planning & Infrastructure under Section 75W of the EP&A Act to modify the Project to allow for a combined limit for coal and coal reject truck movements and changes to the amount of product coal to be trucked off-site. The modification was approved by the Director-General (now Secretary) of the NSW Department of Planning & Infrastructure (DP&I) (now the Department of Planning and Environment [DP&E]) on 2 July 2011.

1.1 PURPOSE AND SCOPE

This Traffic Management Plan (TMP) has been prepared for the Project in accordance with Condition 22, Schedule 4 of the Project Approval. The primary aim of the TMP is to minimise the traffic impacts of the Project on the residential areas and schools within Helensburgh.

The relationship of this TMP to the Metropolitan Coal Environmental Management Structure is shown on Figure 3.

Section 3.1 outlines other Approval Conditions of relevance to the TMP. This includes a requirement to conduct a Road Safety Audit of the Mine Access Road and Parkes Street intersection in accordance with Condition 17, Schedule 4 of the Project Approval. The Road Safety Audit is described in Section 8.1. Metropolitan Coal will implement the Road Safety Audit recommendations to the satisfaction of the Director-General (now Secretary).

1.2 STRUCTURE OF THE TMP

The remainder of the TMP is structured as follows:

Section 2: Describes the review and update of the TMP.

Section 3: Outlines the statutory requirements applicable to the TMP.

Section 4: Describes Metropolitan Coal off-site haulage of coal and coal reject.

Section 5: Provides baseline data.

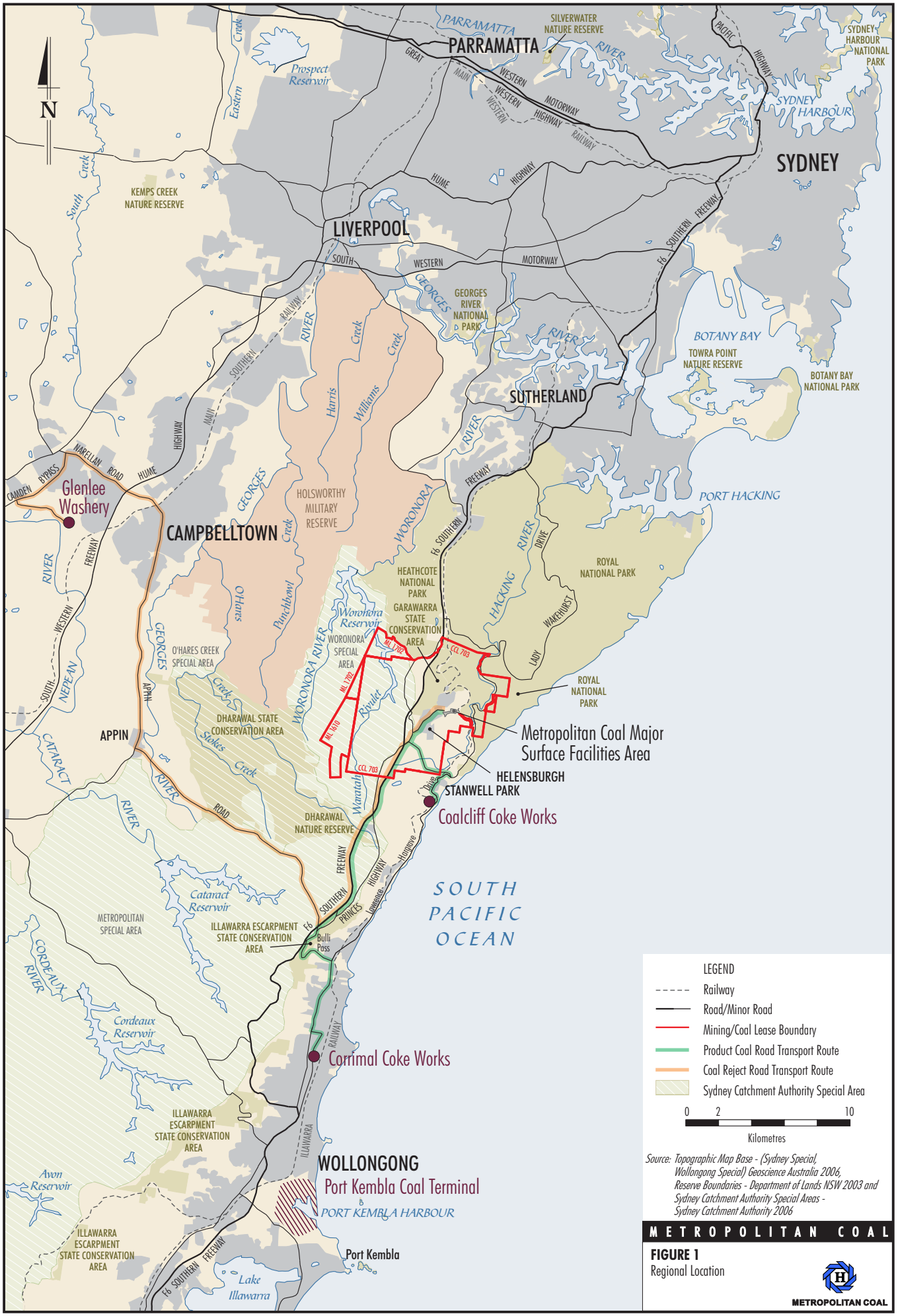
Section 6: Describes the consultation undertaken for the development of the TMP.

Section 7: Details the performance indicators that will be used to assess the Project.

Section 8: Describes traffic management measures.

Section 9: Describes the monitoring program.

Section 10: Provides a Contingency Plan to manage any unpredicted impacts and their consequences.



Source: Topographic Map Base - (Sydney Special, Wollongong Special) Geoscience Australia 2006, Reserve Boundaries - Department of Lands NSW 2003 and Sydney Catchment Authority Special Areas - Sydney Catchment Authority 2006

METROPOLITAN COAL

FIGURE 1
Regional Location

METROPOLITAN COAL

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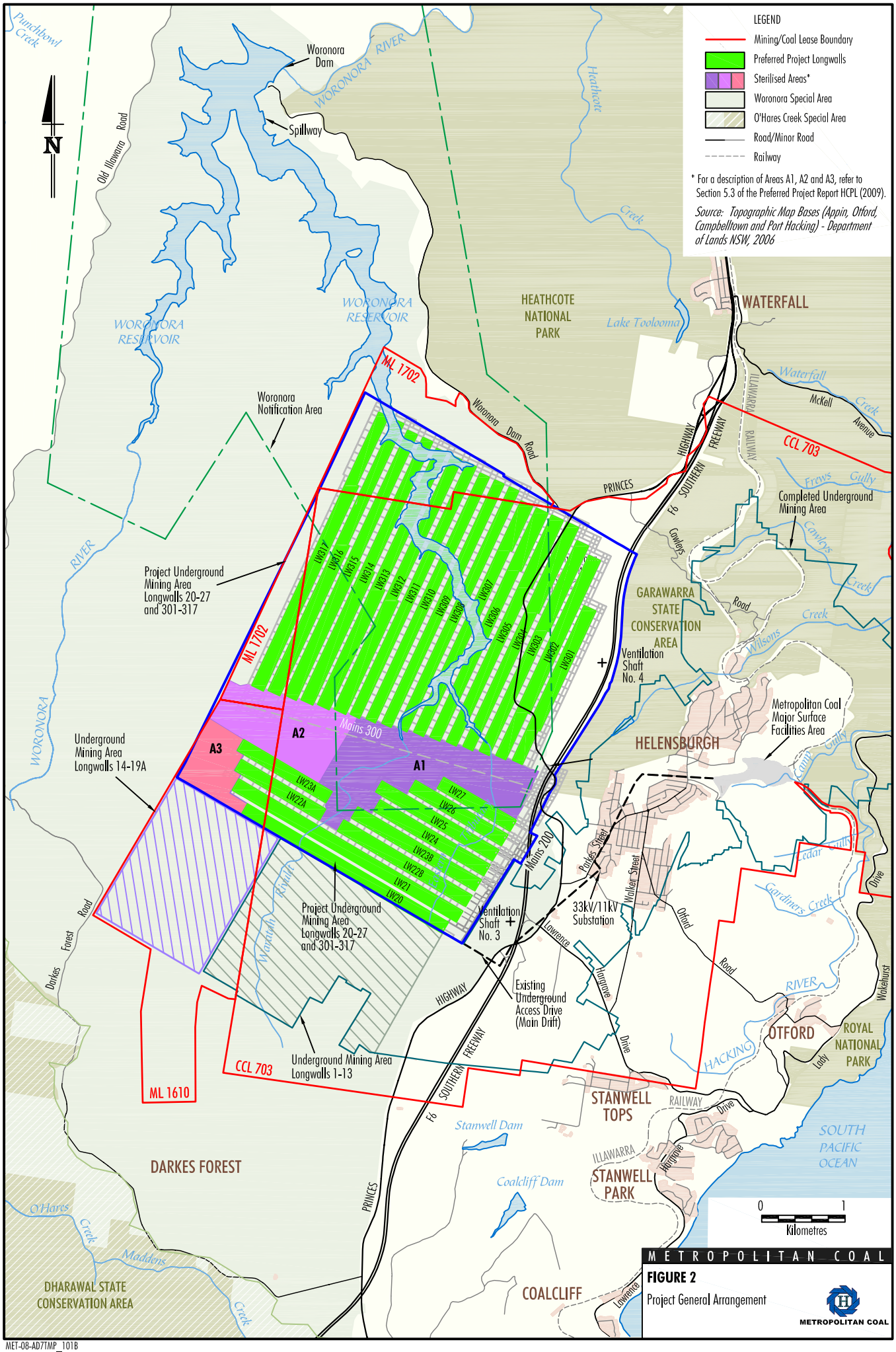

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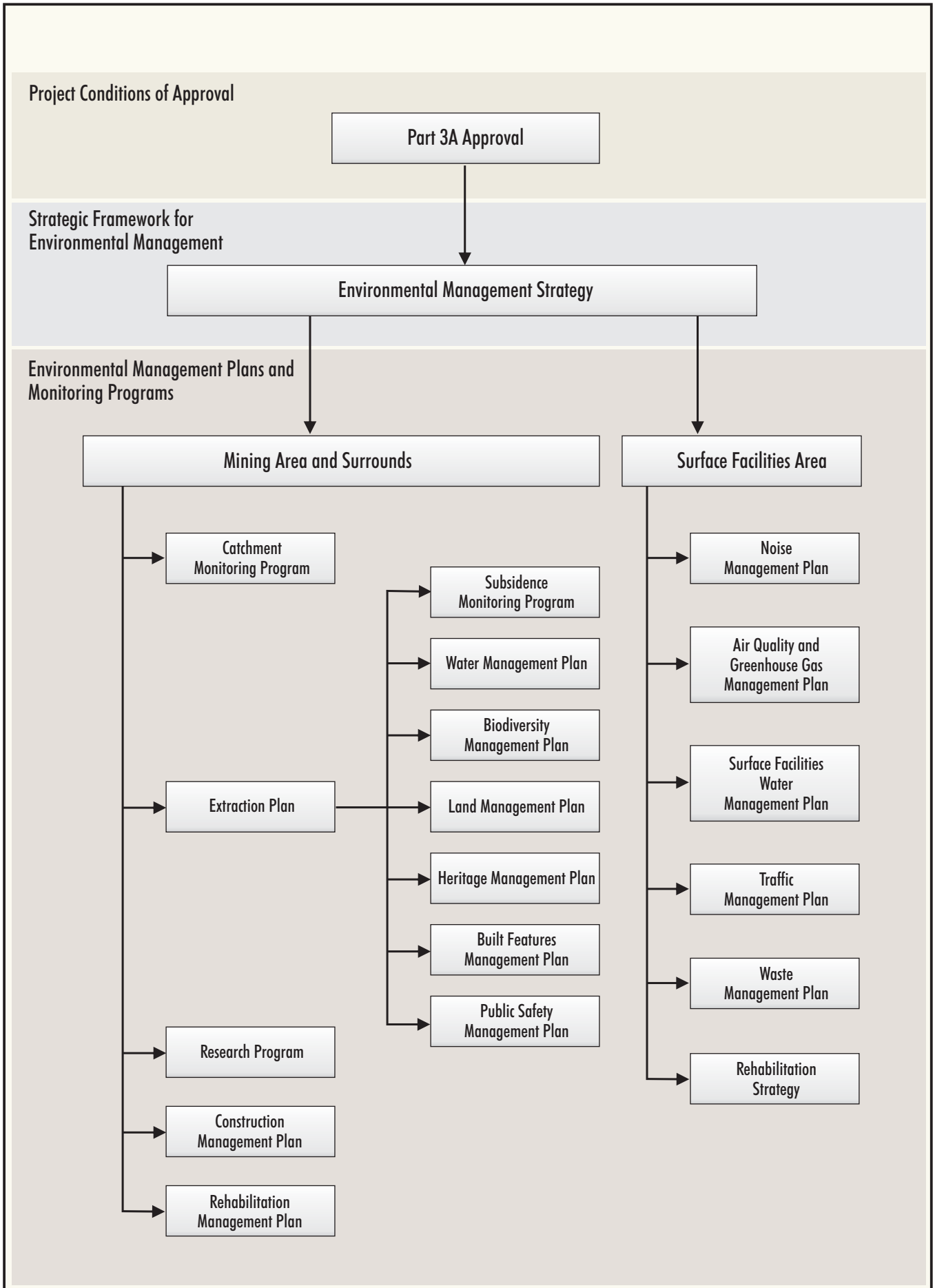

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FIGURE 3
Environmental Management Structure

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Section 11: Describes the annual review and improvement of environmental performance.

Section 12: Outlines the management and reporting of incidents, complaints and non-compliances.

Section 13: Lists the references cited.

2 TMP REVIEW AND UPDATE

In accordance with Condition 4, Schedule 7 of the Project Approval, this TMP will be reviewed within three months of the submission of:

- an audit under Condition 8 of Schedule 7;
- an incident report under Condition 6 of Schedule 7;
- an annual review under Condition 3 of Schedule 7; and

if necessary, the TMP will be revised to the satisfaction of the Director-General (now Secretary) of the DP&E, to ensure the plan is updated on a regular basis and to incorporate any recommended measures to improve environmental performance.

The TMP will also be reviewed within three months of approval of any Project modification and if necessary, revised to the satisfaction of the DP&E.

The revision status of this TMP is indicated on the title page of each copy. The distribution register for controlled copies of the TMP is described in Section 2.1.

2.1 DISTRIBUTION REGISTER

In accordance with Condition 10, Schedule 7 'Access to Information', Metropolitan Coal will make the TMP publicly available on the Peabody website. A hard copy of the TMP will also be maintained at the mine site.

Metropolitan Coal recognises that various regulators have different distribution requirements, both in relation to whom documents should be sent and in what format. An Environmental Management Plan and Monitoring Program Distribution Register will be established in consultation with the relevant agencies and infrastructure owners that indicates:

- to whom Metropolitan Coal plans and programs, such as the TMP, will be distributed;
- the format (i.e. electronic or hard copy) of distribution; and
- the format of revision notification.

Metropolitan Coal will make the Distribution Register publicly available on the Peabody website.

Metropolitan Coal is responsible for maintaining the Distribution Register and for ensuring that the notification of revisions is sent by email or post as appropriate.

In addition, Metropolitan Coal employees with local computer network access will be able to view the controlled electronic version of this TMP on the Metropolitan Coal local area network. Metropolitan Coal will not be responsible for maintaining uncontrolled copies beyond ensuring the most recent version is maintained on Metropolitan Coal's computer system and the Peabody website.

3 STATUTORY REQUIREMENTS

Metropolitan Coal's statutory obligations are contained in:

(i) the conditions of the Project Approval;

(ii) relevant licences and permits, including conditions attached to mining leases; and

(iii) other relevant legislation.

These are described below.

3.1 EP&A ACT APPROVAL

Condition 22, Schedule 4 of the Project Approval requires the preparation of a TMP for the Project. Approval Condition 22 states:

Traffic Management

22. The Proponent shall prepare and implement a Traffic Management Plan for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with the RTA, WCC, local schools and the CCC, and submitted to the Director-General for approval by the end of February 2010. The primary aim of the plan is to minimise the traffic impacts of the project on the residential areas and schools within Helensburgh.

In addition Conditions 17-21, Schedule 4 of the Project Approval (as amended by the Notice of Modification dated 2 July 2011) state the following:

Parkes Street Intersection

17. By the end of 2010, the Proponent shall:

(a) undertake a road safety audit of the Parkes Street and Colliery Road intersection, in consultation with the RTA and WCC; and

(b) implement any recommendations of this audit,

to the satisfaction of the Director-General.

Road Maintenance Contributions

18. From the end of 2009, the Proponent shall make a suitable annual contribution to WCC, WSC, and CC for the maintenance of local roads that are used as haulage routes by the project. If there is any dispute over the amount of the contribution, the matter must be referred to the Director-General for resolution.

Road Transport Restrictions

19. The Proponent shall not:

(a) load coal or coal reject onto trucks, or transport it off site by road, outside the hours of 7am and 6pm Monday to Friday;

(b) transport more than 170,000 tonnes of coal off site by road in a calendar year;

(c) transport any coal off site to the Port Kembla Coal Terminal by road;

(d) permit the departure of more than 25 trucks containing product coal for delivery to the Corrimal Cokeworks on any given day; or

(e) permit the departure of more than 30 trucks containing product coal for delivery to the Coalcliff Cokeworks on any given day.

20. During emergencies (such as the disruption of rail services) the Proponent may exceed the restrictions in Condition 19 above with the written approval of the Director-General.

Monitoring

21. The Proponent shall monitor the amount of coal and coal reject transported from the site by road and rail each year, and report the results of this monitoring on its website every six months.

In addition, Condition 2, Schedule 7 of the Project Approval outlines management plan requirements that are applicable to the preparation of the TMP. Table 1 indicates where each component of this condition is addressed within this TMP.

3.2 LICENCES, PERMITS AND LEASES

In addition to the Project Approval, all activities at or in association with Metropolitan Coal will be undertaken in accordance with the following licences, permits and leases which have been issued or are pending issue:

- The conditions of mining leases issued by the Division of Resources and Energy (DRE), within the NSW Department of Trade and Investment, Resources and Energy (NSW T&I), under the NSW *Mining Act, 1992* (e.g. Consolidated Coal Lease [CCL] 703, Mining Lease [ML] 1610, ML 1702, Coal Lease 379, Mining Purpose Lease 320 and Authorisation 200).
- The *Metropolitan Coal Mining Operations Plan 1 October 2012 to 30 September 2019* approved by NSW T&I.
- The conditions of Environment Protection Licence (EPL) No. 767 issued by the NSW Environment Protection Authority (EPA) under the NSW *Protection of the Environment Operations Act, 1997*. Revision of the EPL will be required prior to the commencement of Metropolitan Coal activities that differ from those currently licensed.
- The prescribed conditions of specific surface access leases within CCL 703 for the installation of surface facilities as required.
- Water extraction licences issued by the *NSW Office of Wa*ter under the *Water Act, 1912,* were converted to licences under the *Water Management Act, 2000.* The existing licences were converted to licences under the *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources, 2011* (i.e. WAL36475 was converted on 1 May 2014) and the *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources, 2011* (i.e. WAL25410 was converted on 28 November 2012).
- Mining and occupational health and safety related approvals granted by NSW T&I and WorkCover NSW.
- Supplementary approvals obtained from the Sydney Catchment Authority for surface activities within the Woronora Special Area (e.g. fire road maintenance activities).

Table 1
Management Plan Requirements

Project Approval Condition	TMP Section
Condition 2 of Schedule 7	
2. The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:	
a) detailed baseline data;	Section 5
b) a description of:	
• the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Section 3
• any relevant limits or performance measures/criteria;	Not applicable
• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;	Section 7
c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Sections 8, 9 and 10
d) a program to monitor and report on the:	Sections 8, 9 and 11
• impacts and environmental performance of the project;	
• effectiveness of any management measures (see c above);	
e) a contingency plan to manage any unpredicted impacts and their consequences;	Section 10
f) a program to investigate and implement ways to improve the environmental performance of the project over time;	Section 11
g) a protocol for managing and reporting any;	
• incidents;	Section 12
• complaints;	Section 12
• non-compliances with statutory requirements; and	Section 12
• exceedances of the impact assessment criteria and/or performance criteria; and	Not applicable
h) a protocol for periodic review of the plan.	Section 2

3.3 OTHER LEGISLATION

Metropolitan Coal will conduct the Project consistent with the Project Approval and any other legislation that is applicable to an approved Part 3A Project under the EP&A Act.

The following Acts may be applicable to the conduct of the Project (HCPL, 2008):

- *Contaminated Land Management Act, 1997;*
- *Dangerous Goods (Road and Rail Transport) Act, 2008;*
- *Mining Act, 1992;*
- *Noxious Weeds Act, 1993;*
- *Rail Safety (Adoption of National Law) Act, 2012;*
- *Roads Act, 1993;*
- *Protection of the Environment Operations Act, 1997;*

- *Threatened Species Conservation Act, 1995;*
- *Sydney Water Catchment Management Act, 1998;*
- *Coal Mine Health and Safety Act, 2002;*
- *Crown Lands Act, 1989;*
- *Dams Safety Act, 1978;*
- *Energy and Utilities Administration Act, 1987;*
- *Fisheries Management Act, 1994;*
- *Water Act, 1912;* and
- *Water Management Act, 2000.*

Relevant licences or approvals required under these Acts will be obtained as required.

4 METROPOLITAN COAL MATERIALS HAULAGE

The majority of product coal from Metropolitan Coal is transported by train to the Port Kembla Coal Terminal for transport to domestic and overseas customers, with trains operating up to 24 hours per day, seven days per week.

Previously, small volumes of product coal for the domestic market were transported by road to the Corrimal Coke Works and Coalcliff Coke Works (Figure 1), between 7.00 am and 6.00 pm Monday to Friday. Metropolitan Coal's transportation of product coal to the Coalcliff Coke Works and Corrimal Coke Works has currently ceased since the closure of the Coke Works in June 2013 and May 2014, respectively.

Coal reject material is also transported by road to the Glenlee Washery for disposal (Figure 1), between 7.00 am and 6.00 pm Monday to Friday.

In accordance with Metropolitan Coal Replacement Drift Modification Environmental Assessment (HCPL, 2010) disposal of excess drift waste rock may be transported off-site within approved coal reject trucking limits.

The following transport routes are utilised (subject to Council or Roads and Traffic Authority [RTA] roadworks/detours) to transport coal, coal reject material and excess drift waste rock by road (Figure 1):

- Any coal trucks travelling to the Corrimal Coke Works use Parkes Street, Old Princes Highway, F6 Southern Freeway, Princes Highway (Bulli Pass Road), Bellambi Lane, Northern Distributor, and Railway Street.
- Any coal trucks travelling to the Coalcliff Coke Works use Parkes Street, Old Princes Highway, and Lawrence Hargrave Drive.
- Trucks travelling to the Glenlee Washery use Parkes Street, Old Princes Highway, F6 Southern Freeway, Appin Road, Bulli Appin Road, Church Street, Appin Road, Narellan Road, Camden Bypass, Macarthur Road, Springs Road, and Glenlee Road. When Bulli Tops is fogged in, these trucks use Parkes Street, Old Princes Highway, F6 Southern Freeway, Wilton Road, F5 Freeway Wilton to Kenny Hill off ramp, Narellan Road, Camden Bypass, Macarthur Road, Springs Road and Glenlee Road.

5 BASELINE DATA

5.1 EXISTING AND PREDICTED TRAFFIC VOLUMES

Masson Wilson Twiney (2008) summarise historical and recent RTA annual average daily traffic (AADT) data for major roads of relevance to the Project, which range from approximately 5,500 movements per day at Lawrence Hargrave Drive to approximately 55,000 movements per day on Narellan Road.

Traffic surveys were conducted along the key routes used by Metropolitan Coal haulage contractors in 2007 at the following locations (Masson Wilson Twiney, 2008):

- Site 1: Mine Access Road near Parkes Street.
- Site 2: Parkes Street east of Old Princes Highway at Helensburgh.
- Site 3: Lawrence Hargrave Drive between Walker Street and Stonehaven Road, Stanwell Tops.
- Site 4: Old Princes Highway at Bulli Pass.
- Site 5: Princes Highway north of Bellambi Lane, Russell Vale.
- Site 6: Bulli Appin Road, Appin near Kings Fall Bridge.
- Site 7: Narellan-Appin Road north of Appin township, south of Brian Road.
- Site 8: Appin Road outside Campbelltown Hospital at Ambarvale/Bradbury.
- Site 9: Narellan Road east of Hume Highway interchange, Narellan Vale.
- Site 10: Camden Bypass between Macarthur Road and Narellan Road at Elderslie.
- Site 11: Springs Road west of Richardson Road at Spring Farm.

The survey locations are provided in Appendix A (Figures A1 to A3).

The traffic assessment analysis of existing traffic flows indicated that Metropolitan Coal made only a minor contribution to total traffic volumes on the coal and coal reject haulage routes (Table 2). With the exception of Parkes Street (6.5%) and Lawrence Hargrave Drive (3.4%), Metropolitan Coal traffic contributed less than 3% of the existing daily traffic on the routes surveyed in 2007 (Masson Wilson Twiney, 2008).

Project construction traffic was modelled for 2014 (Table 2) and is expected to increase traffic flows to Metropolitan Coal by approximately 10%. Outside of Helensburgh the construction activity contribution to total traffic would be negligible (Masson Wilson Twiney, 2008).

Construction workforce movements associated with the Replacement Drift development could potentially increase light vehicle movements to and from the mine. Metropolitan Coal will work with the drift construction contractors to use car pooling and/or mini-bus shuttles to keep light vehicle movements associated with drift construction to a minimum.

Table 2
Average Weekday Daily Traffic Volumes by Haulage Route (vehicles/day)

Site	Road and Location	Measured 2007			Estimated 2014		
		Total	Metropolitan Coal	% of Total	Total	Project	% of Total
Through Helensburgh (All Routes)							
1	Mine Access Road	829	829	100	923	923	100
2	Parkes Street	7,486	488	6.5	8,058	570	7.1
Route to/from Coalcliff							
3	Lawrence Hargrave Drive at Stanwell Tops	5,871	198	3.4	7,878	210	2.7
Route to/from Corrimal							
4	Old Princes Highway at Bulli Pass	10,516	94	0.9	12,519	110	0.9
5	Princes Highway at Russell Vale	25,780	60	0.2	27,557	72	0.3
Route to/from Glenlee Washery							
6	Bulli-Appin Road at Kings Fall Bridge	8,174	84	1.0	8,727	98	1.1
7	Narellan-Appin Road at Appin	9,916	82	0.8	10,445	88	0.8
8	Appin Road at Bradbury	29,729	82	0.3	31,184	86	0.3
9	Narellan Road at Narellan Vale	55,613	82	0.1	75,311	82	0.1
10	Camden Bypass at Elderslie	19,292	82	0.4	33,066	82	0.2
11	Springs Road at Spring Farm	2,924	82	2.8	7,982	82	1.0

Source: After Masson Wilson Twiney, 2008.

5.2 INTERSECTION PERFORMANCE

Intersection traffic flow data was collected at six relevant intersections in 2007 between 7.00 am and 9.00 am, and 4.00 pm and 6.00 pm (Masson Wilson Twiney, 2008). The intersection survey locations are provided in Appendix A (Figures A2 and A3).

The performance of these intersections was assessed using the intersection analysis computer program SIDRA (Signalised and Unsignalised Intersection Design and Research Aid) (Masson Wilson Twiney, 2008). The results of the intersection turning movement surveys indicate that the peak traffic activity periods in the morning and evening on the surrounding road system occurred between 8.00 am and 9.00 am, and 5.00 pm and 6.00 pm and the existing levels of service were good and with spare capacity (Table 3) (Masson Wilson Twiney, 2008).

Table 3
Relevant Intersection Performance – Surveyed Traffic Flows 2007

Intersection	Level of Service[1]	
	AM Peak	PM Peak
Parkes Street and Mine Access Road	A	A
Parkes Street and Walker Street	A	A
Parkes Street and Old Princes Highway	A	B
Old Princes Highway and Lawrence Hargrave Drive	B	B
Lawrence Hargrave Drive and Walker Street	A	B
Railway Street and Corrimal and Coke Works	A	-[2]

Source: After Masson Wilson Twiney, 2008.
[1] Level of Service as determined by SIDRA.
[2] No turning vehicles in PM peak at Corrimal Coke Works intersection.
A - Good operation.
B - Good with acceptable delays and spare capacity.

6 CONSULTATION

In accordance with Condition 22, Schedule 4 of the Project Approval consultation was undertaken with relevant stakeholders as part of the preparation of this TMP.

Prior to the formation of the Metropolitan Coal Community Consultative Committee (CCC), consultation was undertaken with the following parties:

- NSW Roads and Traffic Authority (RTA) (Southern Region).
- Wollongong City Council (WCC).
- Local schools (i.e. Helensburgh Public School and Holy Cross Catholic School).
- Two Metropolitan Coal Project Community Reference Group (CRG) Members.

Where relevant, these discussions also canvassed the requirements of Condition 17, Schedule 4 of the Project Approval regarding the road safety audit (Section 3.1).

The Metropolitan Coal CCC was formed and held its first meeting in May 2010. A draft of the TMP was provided to the CCC for comment in July 2010.

The following is a summary of the key feedback received during consultation for the TMP.

NSW Roads and Traffic Authority (Southern Region)

Comments from the RTA included:

- The RTA Land Use Planning section raised no issues regarding traffic operation associated with the Metropolitan Coal. It was noted that Parkes Street is a local road under control of the WCC.
- The RTA School Safety Branch indicated that the RTA would support any proposal to upgrade the junction of Parkes Street and Metropolitan Coal access to improve pedestrian accessibility and safety.
- The RTA requested that design of any upgrade works for Metropolitan Coal access that came about as a result of the road safety audit be submitted to the RTA for comment prior to construction, however, it should be noted that RTA approval is not required for these works.

Wollongong City Council

WCC representatives indicated that the Council would generally:

- Be supportive of measures to improve pedestrian safety at Metropolitan Coal access at Parkes Street.
- Be concerned about any measures which encouraged increased pedestrian crossing activity of Parkes Street to the south of Metropolitan Coal access as pedestrians would need to interact with general traffic flows, which were of far greater volume than mine traffic.
- Support measures to encourage appropriate driver behaviour including the introduction of a “1800” phone number to report inappropriate driver behaviour.
- Be involved with the road safety audit of Metropolitan Coal site access and Parkes Street intersection.

Local Primary Schools

Comments from the Helensburgh Public School and Holy Cross Catholic School included:

- For both schools the issue of safety for school children walking to and from school was paramount. Key locations where safety was some concern were the Metropolitan Coal access intersection and the existing manned school crossing of Parkes Street, located immediately north of the mine access.
- Some concerns were raised regarding:
  - children using scooters and bikes downhill past the mine access;
  - interaction between drop off/pick up traffic and mine traffic; and
  - the lack of a footpath on the western side of Parkes Street at the Holy Cross School and back towards town forced children across Parkes Street to use the footpath across the mine access.
- It was indicated that there is generally a pedestrian desire to cross Parkes Street to get to the Anglican Church (for after school care) which is not aided by existing pedestrian facilities.

It was also suggested that Metropolitan Coal could consider whether there was any potential to avoid or reduce road haulage during school start and finish times.

Community Reference Group

Prior to formation of the CCC, initial comments were provided by two Metropolitan Coal Project CRG Members including:

- Haulage truck drivers were generally very courteous through Helensburgh and obeyed road rules. Notwithstanding, truck speeds were highlighted as a concern.
- With respect to the mine access road intersection at Parkes Street:
  - Pedestrian safety at the mine access was identified as a potential safety issue, particularly at school start and finish times when school children cross the access when walking along Parkes Street.
  - There is a lack of clear definition of where pedestrians should cross the mine access.
  - There is an existing route where pedestrians cut through a vacant (grassed) block of land adjacent to the Mine Access Road, where pedestrians (including school children) cross away from the pedestrian footpath.
  - Lack of a right turn bay for vehicles entering the Mine. Traffic along Parkes Street are unable to pass a vehicle stopped waiting to turn right into the Mine.
- Lack of a pedestrian crossing of Parkes Street in the town centre (i.e. near the Parkes Street/Walker Street roundabout).
- Continued adherence to Metropolitan Coal road haulage curfew.

In addition, it was identified that there was a need for increased community interaction from the Mine to educate and inform the community about the Mine's activities and the steps the Mine is taking to reduce its impact on the community, particularly the use of rail transport and future disposal of coal reject material.

Community Consultative Committee

During the development of the TMP, members of the CCC provided suggestions in relation to traffic management at Metropolitan Coal, which included:

- the pedestrian arrangements near the Mine Access Road and Parkes Street intersection be improved;
- consultation with the WCC and RTA be conducted in relation to any upgrade works;
- the general good behaviour of the haulage contractor drivers should continue; and
- Metropolitan Coal should continue to operate in compliance with the off-site trucking of coal and coal reject limits.

Metropolitan Coal provided an overview of the draft TMP to members of the CCC at the July 2010 CCC meeting. The draft TMP was forwarded to all CCC members on 10 August 2010. At the October 2010 CCC meeting the draft TMP and the draft Road Safety Audit and Recommendations Report prepared by J. Wyndham Prince (2010) for the Parkes Street and Mine Access Road Intersection (Figure 4) were discussed.

No changes to the draft TMP were requested during the CCC meeting, however some members suggested that the trucking of coal and coal reject be scheduled to avoid school drop off and pick up times. Given the current limits on off-site trucking hours, a further reduction on the hours of trucking to avoid school drop off and pick up times is not considered to be practicable by Metropolitan Coal.

The CCC generally agreed with the recommendations presented in the draft Road Safety Audit and Recommendations Report (Section 8.1).

7 PERFORMANCE INDICATORS

Consistent with Condition 2, Schedule 7 of the Project Approval, Table 4 outlines the performance indicators that will be used to assess the performance of the TMP.

Table 4
Performance Indicators

Aspect	Performance Indicator
Road Maintenance Contributions	When annual road maintenance contribution negotiations are required, the negotiations should commence with the relevant councils and/or DP&E by 31 August.
	Annual road maintenance contributions to relevant councils are made by 30 November.
Product Coal Trucking Tonnages[1]	Coal transported off-site by road in a calendar year does not reach 150,000 tonnes prior to 31 October.
Product Coal Trucking Movements[1]	Product coal truck movements to the Corrimal Cokeworks and Coalcliff Cokeworks do not exceed 22 and 27 movements respectively in any one day.

[1] Metropolitan Coal has currently ceased the transport of product coal to the Corrimal Cokeworks and Coalcliff Cokeworks. This performance indicator will be assessed in the event the trucking of product coal to the Cokeworks recommences.

Monitoring that will be conducted to assess the performance indicators is described in Section 9.

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FIGURE 4
Mine Access Road and Parkes Street Intersection

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MET-08-AD7 TMP_102A

8 TRAFFIC MANAGEMENT

8.1 ROAD SAFETY AUDIT OF PARKES STREET AND MINE ACCESS ROAD INTERSECTION

In accordance with Condition 17, Schedule 4 of the Project Approval a Road Safety Audit of the Mine Access Road and Parkes Street intersection (Figure 4) was conducted in September 2010. The road safety audit considered the following aspects:

- intersection layout and geometric design;
- vehicle/vehicle conflicts;
- vehicle/pedestrian conflicts; and
- lighting, signs, delineation and drainage.

The Road Safety Audit recommended an upgrade of the Parkes Street and Colliery Road intersection. Following the provision of detailed upgrade design plans to the WCC's Traffic Safety Committee and the Traffic Safety Committee's approval of the final intersection plans, Metropolitan Coal anticipated that the implementation of the upgrade works would occur. However, the intersection upgrade works require the WCC to acquire the road easement from Crown Lands, which the WCC has advised it is not in a position to do. Metropolitan Coal will continue discussions with Crown Lands and the DP&E to assess the potential for possible alternative arrangements to allow the intersection upgrade to progress.

The recommendations of the audit will be implemented to the satisfaction of the Director-General (now Secretary) of the DP&E.

8.1.1 Potential Intersection Improvements

A number of potential intersection improvement options were identified through the initial consultation, site inspections and the conduct of the road safety audit (Table 5).

Metropolitan Coal engaged J. Wyndham Prince, consulting civil infrastructure engineers, to prepare a Signage Plan for implementation in the vicinity of the Parkes Street and Colliery Road intersection. The works set out in the Signage Plan comprised installation of additional signage and line marking measures designed to improve safety in the vicinity of the intersection. The Signage Plan was approved (subject to conditions by the WCC and the works were completed in early 2013.

8.2 ROAD MAINTENANCE CONTRIBUTIONS

In accordance with Condition 18, Schedule 4 of the Project Approval Metropolitan Coal will make annual monetary contributions to local councils for the maintenance of local roads that are used as haulage routes by Metropolitan Coal. If there is any dispute over the amount of the contribution, the matter will be referred to the Director-General (now Secretary) of the DP&E for resolution.

As coal reject trucking movements to Glenlee Washery will vary annually and will not extend for the whole Project life, negotiation of suitable road maintenance contributions for Metropolitan Coal coal reject truck movements will be undertaken annually, or at an alternative interval agreed by the DP&E.

Table 5
Potential Intersection Improvements

Intersection Aspect	Description of Issue	Potential Improvement
Visibility – Parkes Street	Visibility on the northbound approach to the intersection is restricted by a 60° left hand bend. This may lead to road users being unaware of trucks from the Mine Access Road turning onto Parkes Street.	Provide junction and "Trucks Turning" warning signs on approach to the bend and chevron signs to warn drivers of the approaching road layout. Provide an offset edge line pavement marking on the inside of the bend to discourage drivers cutting the corner and improve visibility. Consider installing a flashing light unit controlled by detectors on the Mine Access Road's exit lane in addition to the junction warning signs.
Visibility – Mine Access Road	The hold line and stop sign on approach to Parkes Street are set back 10 metres (m) from the kerb line. This reduces the visibility to the right to approximately 30 m for vehicles waiting to exit the Mine Access Road, which may lead to vehicle conflicts due to vehicles exiting Mine Access Road not sighting oncoming traffic.	Relocate the hold line and stop sign to be in line with the proposed kerb and gutter.
Signage – Parkes Street	The commencement of the existing 40 kilometre per hour (kph) school zone coincides with the Mine Access Road intersection. This may distract or confuse road users and lead to conflicts due to late decision making.	Relocate the commencement of the 40 kph school zone to the south, in advance of the left hand bend.
Signage – Mine Access Road	There are multiple signs mounted together at the intersection including: − Mine Entrance. − Caution Trucks Turning. − Five right turn arrows. − Community call line and telephone number. − Peabody Australia/Metropolitan Coal. As these signs are nonstandard, they may lead to conflicts and confusion due to late decision making.	Replace existing Mine Entrance sign with standard guide sign. Relocate mine information sign away from the intersection.
Vertical Alignment – Parkes Street	The northbound approach to the intersection is on an approximate 10% down grade. This may encourage excessive speeds on approach to the intersection and lead to conflicts with vehicles waiting to turn right into the intersection.	Provide a "Steep Descent" warning sign and a "Reduce Speed Now" sign on approach.
Pedestrians – Parkes Street	The existing crossing adjacent to McMillan Street is uncontrolled. This crossing is likely to have high usage at peak times and may lead to pedestrians crossing the road at other points due to the waiting times at the crossing, which may lead to vehicle/pedestrian conflicts.	Replace with a controlled zebra crossing to encourage pedestrians to cross at a single point and remove all conflicting crossing warning signs.

Table 5 (Continued)
Potential Intersection Improvements

Intersection Aspect	Description of Issue	Potential Improvement
Pedestrians – Mine Access Road	A pedestrian desire line has formed across the adjacent vacant lot with the existing crossing point being approximately 5 m down Mine Access Road from Parkes Street. This leads to pedestrians crossing at an uncontrolled location and may lead to potential conflicts with vehicles and trucks.	Provide a zebra crossing facility as per RTA Delineation Guidelines.
Intersection Configuration	At the intersection Parkes Street is 10.5 m wide with one lane in each direction, 5 m northbound and 5.5 m southbound, separated by a centre line. There is no kerb and gutter adjacent to the east verge to define the road edge, protect pedestrians and control turning movements of large vehicles. This may lead to conflict with other vehicles and pedestrians.	Provide kerb and gutter on the east verge to define the edge of carriageway and add protection for pedestrians. Provide additional pavement markings to define the lanes as 3.5 m wide with 1.5 to 2 m wide shoulders.
General	Some road markings are worn and difficult to see.	Undertake a regular maintenance program to ensure road markings and signs are visible at all times.

After J. Wyndham Prince (2010)

8.3 COAL AND COAL REJECT HAULAGE VEHICLE MANAGEMENT MEASURES

The haulage of coal product and coal reject will be undertaken in accordance with the hours of operation set out in Metropolitan Coal's conditions of Project Approval.

In accordance with the Project Approval no more than 170,000 tonnes of coal will be transported off-site by road in a calendar year without the written approval of the Director-General (now Secretary) of the DP&E. No more than 25 trucks containing product coal will be delivered to the Corrimal Cokeworks on any given day, and no more than 30 trucks containing product coal will be delivered to the Coalcliff Cokeworks on any given day.

In accordance with the Project Approval no coal would be transported by road to the Port Kembla Coal Terminal without the written approval of the Director-General (now Secretary).

8.3.1 Hours of Road Haulage Operations

Metropolitan Coal and its haulage contractors will not load coal or coal reject into on-road haulage trucks, or transport it off site by road, outside of the hours of 7.00 am and 6.00 pm Monday to Friday.

During emergencies, such as the disruption of rail services, Metropolitan Coal may haul material offsite outside of these haulage hours only with the written approval of the Director-General (now Secretary) of the DP&E.

8.3.2 Haulage Driver Behaviour Policy and Enforcement

Metropolitan Coal product coal and coal reject haulage will be undertaken by private haulage companies. Metropolitan Coal will provide its contract haulage companies with a Driver's Code of Conduct regarding:

- the approved hours of haulage operations;
- speed management and use of air brakes; and
- general community courtesy measures.

Metropolitan Coal will instruct its haulage companies to provide these instructions to individual drivers and incorporate these measures in their standard operating procedures. The Driver's Code of Conduct includes a disciplinary procedure for breaches of the standard instructions and operating procedures.

A telephone number for the provision of comments or complaints regarding Metropolitan Coal is displayed on the signage at the entrance to Metropolitan Coal (1800 115 003). This number can be used for members of the community to provide comments regarding product coal and coal reject haulage.

8.3.3 Personnel and Contractor Refresher Training

Metropolitan Coal will provide personnel and contractors responsible for road transport of coal, reject and spoil material with annual refresher training. Each training session will include re-education regarding trucking limits, the Driver's Code of Conduct, and transport restrictions prescribed in the Project Approval.

8.4 OTHER TRAFFIC MANAGEMENT MEASURES

8.4.1 Deliveries

Metropolitan Coal maintains a policy to limit the entrance of heavy vehicles to Metropolitan Coal, with a heavy vehicle night-time curfew (i.e. large vehicle access to the site is restricted during night-time hours).

In addition, Metropolitan Coal actively works with suppliers to minimise the use of heavy vehicles to deliver small items to the Major Surface Facilities Area that could be delivered via a light vehicle or van, where practicable.

8.4.2 General Traffic Minimisation

Metropolitan Coal encourages the mine operational workforce and construction workforce to car-pool and minimise workforce related light vehicle movements to the site.

9 MONITORING

Coal and coal reject deliveries are weighed on receipt at their destination (e.g. Port Kembla, Glenlee Washery) and the delivered tonnages are reported at regular intervals back to Metropolitan Coal.

Metropolitan Coal will monitor the amount of coal and coal reject that is transported from the site by road and by rail each year in accordance with Condition 21, Schedule 4 of the Project Approval (Section 3.1). The results of the monitoring will be provided on Metropolitan Coal's website every six months, commencing in December 2010.

The website can be found at:

http://www.peabodyenergy.com.au/nsw/metropolitan-mine.html

9.1 MONITORING AGAINST PERFORMANCE INDICATORS

Metropolitan Coal will assess the Project traffic management against the performance indicators detailed in Table 6. Metropolitan Coal has currently ceased the transport of product coal to the Corrimal Cokeworks and Coalcliff Cokeworks. The performance indicators that relate to product coal trucking tonnages and product coal trucking movements in Table 6 will be assessed if trucking of product coal to the Cokeworks recommences. If data analysis indicates a performance indicator has been exceeded or is likely to be exceeded, management measures will be implemented and Metropolitan Coal will continue to monitor.

10 CONTINGENCY PLAN

In the event that the off-site coal and coal reject trucking limits outlined in the Project Approval are considered to have been exceeded or are likely to be exceeded, Metropolitan Coal will implement the following Contingency Plan:

- The likely exceedance of the trucking limit will be reported to the Technical Services Manager and/or the Manager - Safety & Environmental Services within 24 hours.
- The Technical Services Manager or the Manager - Safety & Environmental Services will report the likely exceedance to the General Manager as soon as practicable after becoming aware of the exceedance.
- Metropolitan Coal will report the exceedance (or likely exceedance) of the trucking limit measure to the DP&E as soon as practicable after Metropolitan Coal becomes aware of the exceedance.
- Metropolitan Coal will identify an appropriate course of action in consultation with the haulage contractors. For example:
  - proposed contingency measures; and
  - a program to review the effectiveness of the contingency measures;

  Contingency measures will be developed in consideration of the specific circumstances of the exceedance, potential contingency measures are described in Section 10.1 below.
- Metropolitan Coal will submit the proposed course of action and a program to review the effectiveness of the contingency measures to the DP&E for approval.
- Metropolitan Coal will implement the approved course of action to the satisfaction of the DP&E.

Table 6
Monitoring of Environmental Consequences against Performance Indicators

Aspect	Performance Indicators	Assessment of Performance Indicators	Relevant Management Measures
Road Maintenance Contributions	When annual road maintenance contribution negotiations are required, the negotiations should commence with the relevant councils and/or DP&E by 31 August.	The performance indicator will be considered to have been exceeded if the annual contribution negotiations have not commenced by 31 August.	Consult with relevant councils and DP&E regarding contributions payable. Refer any dispute to the Director-General (now Secretary) of the DP&E for resolution.
	Annual road maintenance contributions to relevant councils are made by 30 November each year.	The performance indicator will be considered to have been exceeded if the annual contributions are not made by 30 November each year.	Metropolitan Coal to make annual contribution payments.
Product Coal Trucking Tonnages[1]	Coal transported off-site by road in a calendar year does not reach 150,000 tonnes prior to 31 October each year.	The performance indicator will be considered to have been exceeded if the amount of coal transported off-site by road exceeds 150,000 tonnes prior to 31 October in any one year.	Carefully monitor off-site coal haulage tonnages above 120,000 tonnes, and limit additional coal trucking if necessary to meet the Project Approval limit of 170,000 tonnes.
Product Coal Trucking Movements[1]	Truck movements to the Corrimal Cokeworks do not exceed 22 trucks per day. Truck movements to the Coalcliff Cokeworks do not exceed 27 trucks per day.	The performance indicator will be considered to have been exceeded if the number of product coal trucking movements to the Corrimal Cokeworks and Coalcliff Cokeworks exceed 22 and 27 movements respectively in any one day.	Carefully monitor off-site product coal trucking movements to the Corrimal Cokeworks and Coalcliff Cokeworks above 22 and 27 movements respectively, and limit additional coal trucking if necessary to meet the Project Approval limit of 25 and 30 movements per day to the Corrimal Cokeworks and Coalcliff Cokeworks respectively.

[1] Metropolitan Coal has currently ceased the transport of product coal to the Corrimal Cokeworks and Coalcliff Cokeworks. This performance indicator will be assessed in the event the trucking of product coal to the Cokeworks recommences.

10.1 POTENTIAL CONTINGENCY MEASURES

In the event that monitoring indicates that a Project Approval off-site coal and coal reject trucking limit has been exceeded, Metropolitan Coal will conduct an investigation, and identify and assess potential rectification measures. Potential rectification measures could include:

- an audit of the transport management system, including existing transport management measures;
- identification of potential system improvements such as the upgrade of coal and coal reject handling/transport procedures; and
- the conduct of additional monitoring or review (e.g. increase in frequency) to inform the proposed contingency measures.

In the event that an unexpected outage of the rail network occurs, and Metropolitan Coal is unable to transport coal to the Port Kembla Coal Terminal by rail, a request will be made to the Director-General (now Secretary) of DP&E to permit the transport coal by road for the period of the rail network outage.

11 ANNUAL REVIEW AND IMPROVEMENT OF ENVIRONMENTAL PERFORMANCE

In accordance with Condition 3, Schedule 7 of the Project Approval, Metropolitan Coal will conduct an Annual Review of the environmental performance of the Project by the end of March each year, and annually thereafter.

The Annual Review will specifically address the environmental performance of the TMP and will:

- describe the works carried out in the past year, and the works proposed to be carried out over the next year;
- include a comprehensive review of the monitoring results and complaints records of the Project over the past year, including a comparison of these results against the:
  - relevant statutory requirements, limits or performance measures/criteria;
  - monitoring results of previous years; and
  - relevant predictions in the Environmental Assessment, Preferred Project Report and Extraction Plan;
- identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- identify any trends in the monitoring data over the life of the Project;
- identify any discrepancies between the predicted and actual impacts of the Project, and analyse the potential cause of any significant discrepancies; and
- describe what measures will be implemented over the next year to improve the environmental performance of the Project.

As described in Section 2, this TMP will be reviewed within three months of the submission of an Annual Review, and revised where appropriate.

12 REPORTING

12.1 INCIDENTS

An incident is defined as a set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in the Project Approval.

The reporting of incidents will be conducted in accordance with Condition 6, Schedule 7 of the Project Approval. Metropolitan Coal will notify the Director-General (now Secretary) of the DP&E and any other relevant agencies of any incident associated with the Project as soon as practicable after Metropolitan Coal becomes aware of the incident. Within seven days of the date of the incident, Metropolitan Coal will provide the Director-General (now Secretary) of the DP&E and any relevant agencies with a detailed report on the incident.

12.2 COMPLAINTS

A protocol for the managing and reporting of complaints has been developed as a component of Metropolitan Coal's Environmental Management Strategy and is described below.

The Manager - Safety & Environmental Services is responsible for maintaining a system for recording complaints.

Metropolitan Coal will maintain public signage advertising the telephone number on which environmental complaints can be made. The Manager - Safety & Environmental Services is responsible for ensuring that the currency and effectiveness of the service is maintained. Notifications of complaints received are to be provided as quickly as practicable to the Manager - Safety & Environmental Services.

Complaints and enquiries do not have to be received via the telephone line and may be received in any other form. Any complaint or enquiry relating to environmental management or performance is to be relayed to the Manager - Safety & Environmental Services as soon as practicable. All employees are responsible for ensuring the prompt relaying of complaints. All complaints will be recorded in a complaints register.

For each complaint, the following information will be recorded in the complaints register:

- date and time of complaint;
- method by which the complaint was made;
- personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- nature of the complaint;
- the action(s) taken by Metropolitan Coal in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by Metropolitan Coal, the reason why no action was taken.

The Manager - Safety & Environmental Services is responsible for ensuring that all complaints are appropriately investigated, actioned and that information is fed back to the complainant, unless requested to the contrary.

In accordance with Condition 10, Schedule 7 of the Project Approval, the complaints register will be made publicly available on the website and updated on a monthly basis. A summary of complaints received and actions taken will be presented to the Community Consultative Committee as part of the operational performance review.

12.3 NON-COMPLIANCES WITH STATUTORY REQUIREMENTS

A protocol for the managing and reporting of non-compliances with statutory requirements has been developed as a component of Metropolitan Coal's Environmental Management Strategy and is described below.

Compliance with all approvals, plans and procedures will be the responsibility of all personnel (staff and contractors) employed on or in association with Metropolitan Coal, and will be developed through promotion of Metropolitan Coal ownership under the direction of the General Manager.

The Technical Services Manager and/or Manager - Safety & Environmental Services will undertake regular inspections, internal audits and initiate directions identifying any remediation/rectification work required, and areas of actual or potential non-compliance.

As described in Section 12.1, Metropolitan Coal will notify the Director-General (now Secretary) of the DP&E and any other relevant agencies of any incident associated with Metropolitan Coal as soon as practicable after Metropolitan Coal becomes aware of the incident. Within seven days of the date of the incident, Metropolitan Coal will provide the Director-General (now Secretary) of the DP&E and any relevant agencies with a detailed report on the incident.

A review of Metropolitan Coal's compliance with all conditions of the Project Approval, mining leases and all other approvals and licences will be conducted prior to (and included within) each Annual Review. The Annual Review will be made publicly available on the Peabody website.

Additionally, in accordance with Condition 8, Schedule 7 of the Project Approval, an independent environmental audit will be conducted by the end of December 2011, and a minimum of once every three years thereafter. A copy of the audit report will be submitted to the Director-General (now Secretary) of the DP&E and made publicly available on the Peabody website. The independent audit will be conducted by an appropriately qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General (now Secretary) of the DP&E.

13 REFERENCES

Helensburgh Coal Pty Ltd (2008) *Metropolitan Coal Project Environmental Assessment*.

Helensburgh Coal Pty Ltd (2010) *Metropolitan Mine Replacement Drift Construction Modification Environmental Assessment*.

J. Wyndham Prince (2010) *Stage 5 Road Safety Audit and Recommendations Report Parkes Street and Colliery Road Intersection, Helensburgh (Draft).* Prepared for Peabody Energy Australia.

Masson Wilson Twiney (2008) *Metropolitan Colliery Traffic Assessment.* Prepared for Helensburgh Coal Pty Ltd.

APPENDIX A
BASELINE TRAFFIC SURVEY LOCATIONS

TUBE COUNT SURVEY LOCATIONS

METROPOLITAN COLLIERY

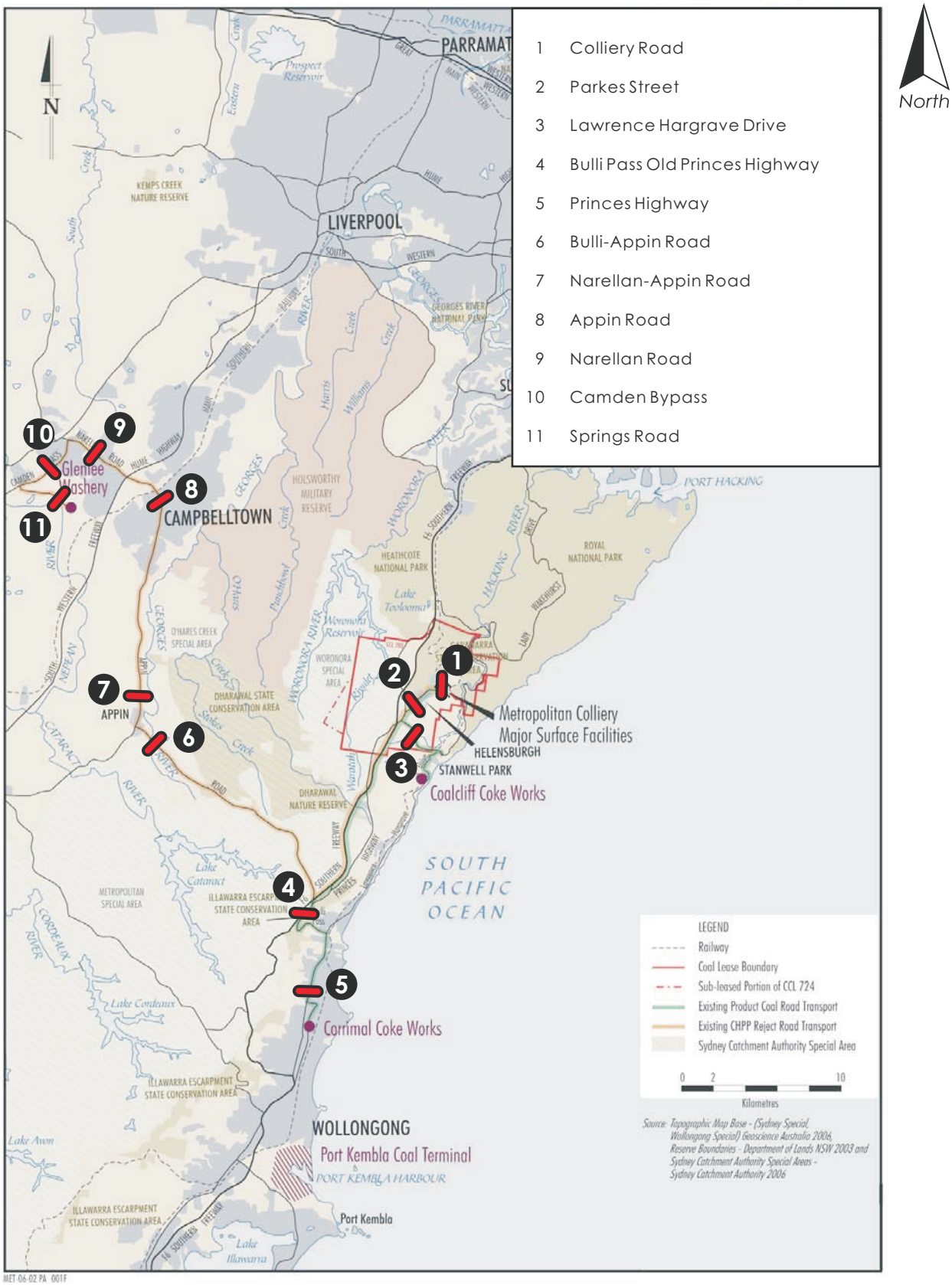

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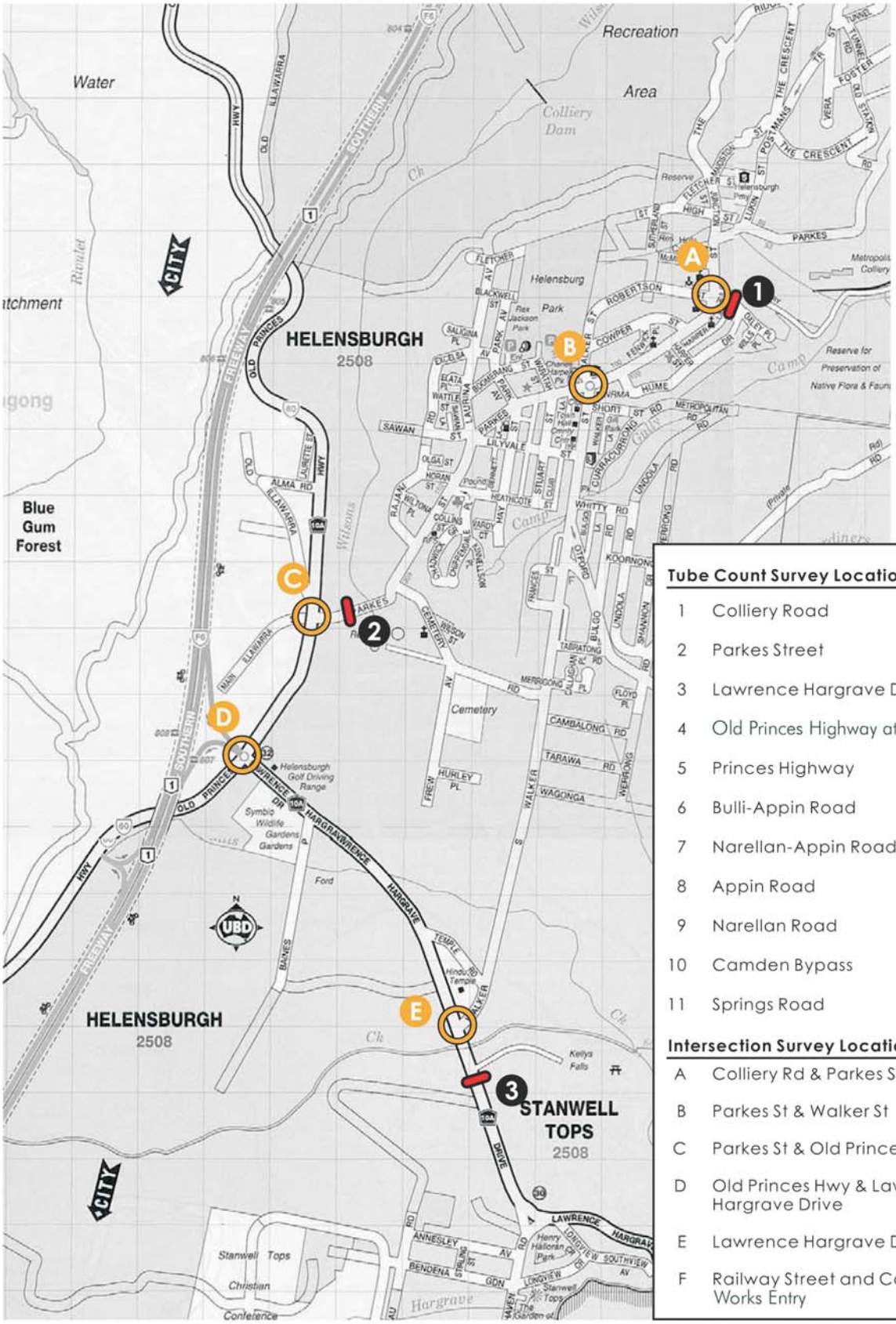
Figure A1

Filename: 063271di11.ai

Date: 29 February 2008

INTERSECTION SURVEY LOCATIONS

METROPOLITAN COLLIERY



Tube Count Survey Locations

1	Colliery Road
2	Parkes Street
3	Lawrence Hargrave Drive
4	Old Princes Highway at Bulli Pass
5	Princes Highway
6	Bulli-Appin Road
7	Narellan-Appin Road
8	Appin Road
9	Narellan Road
10	Camden Bypass
11	Springs Road

Intersection Survey Locations

A	Colliery Rd & Parkes St
B	Parkes St & Walker St
C	Parkes St & Old Princes Hwy
D	Old Princes Hwy & Lawrence Hargrave Drive
E	Lawrence Hargrave Dr & Walker St
F	Railway Street and Corrimal Coke Works Entry

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Figure A2

Filename: 063271di12.ai

Date: 29 February 2008

INTERSECTION SURVEY LOCATIONS

METROPOLITAN COLLIERY

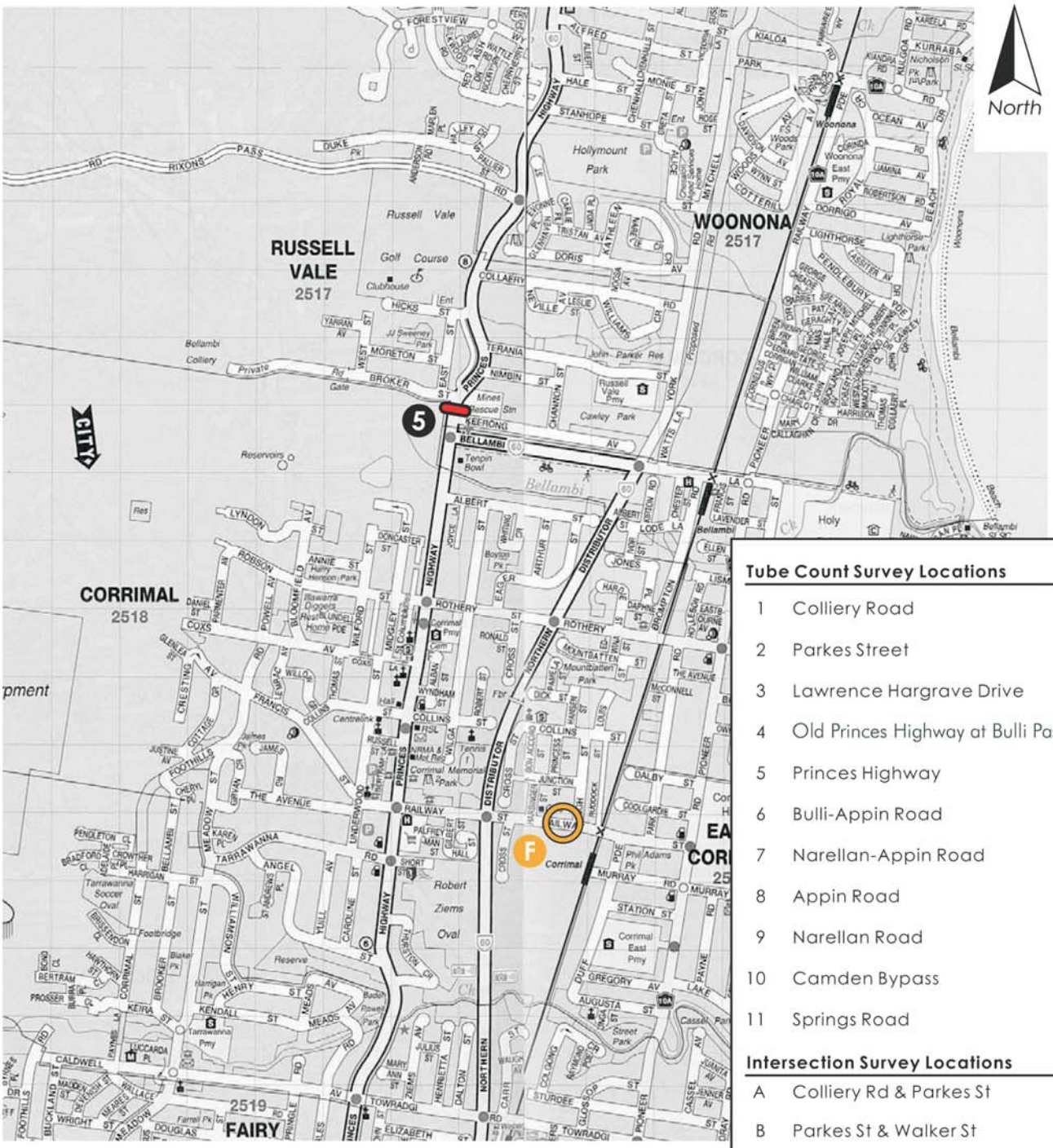

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Figure A3

Filename: 063271di13.ai

Date: 29 February 2008