

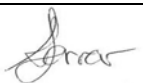


**NARRABRI MINE
ENVIRONMENTAL
MANAGEMENT SYSTEM**

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WHC_PLN_NAR_PUBLIC SAFETY MANAGEMENT PLAN LW101 to LW106

Public Safety Management Plan LW101 to LW106

Edition	Rev.	Comments	Author	Authorised By	Date
A	19-Sep-2011	For NCOPL Review	Peter Horn Associate Director		
B	29-Nov-2011	For Agency Approval	Peter Horn Associate Director		
C	16-Feb-2012	NCOPL review	Peter Horn Associate Director		
D	24-Feb-2012	Consultation amendments	Amanda Kerr Principal Environmental Engineer		
E	14-Mar-2012	Final	Amanda Kerr Principal Environmental Engineer		
F	18 May 2016	LW106 Update	Steve Farrar Environmental Superintendent		18/05/2016



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1 **INTRODUCTION**

1.1 **Overview**

This Public Safety Management Plan (PSMP) has been prepared as part of the Extraction Plan for Longwalls 101 – 106 (LW101 – 106) in the Hoskissons Seam at the Narrabri Mine. This report addresses management objectives and performance measures to manage the potential subsidence impacts on public safety in relation to the Extraction Plan area. The original plan was developed by AECOM and related to the extraction of LW101 to LW105. This revision has been developed to incorporate LW106 into this PSMP.

A general description of the site locality and Extraction Plan area is provided in Section 1.1 of the Extraction Plan. The Extraction Plan describes the operation of the underground mine to date, and the proposed extraction of LW101 – 106.

An updated assessment of potential subsidence movements related to Hoskissons Seam LW101 - 106 has been prepared by Ditton Geotechnical Services (DGS, 2015). These subsidence predictions have been used as a basis for the updated assessment of impacts contained within the Extraction Plan. DGS's analysis and results are contained, in full, as an Appendix B to the Extraction Plan.

Land affected by LW101 – 106 at the Narrabri Mine includes land owned by Narrabri Coal Operations Pty. Limited (NCOPL), and a public road reserve associated with the unsealed Greylands Road. This reserve is Crown Land managed by Narrabri Shire Council. Subsidence effects will primarily occur to land that is owned by NCOPL.

Potential safety risks that may occur as a result of subsidence include:

- Surface cracking;
- Ground deformations;
- Damaged infrastructure (i.e. fallen electricity transmission lines, damaged roads); and
- Loss of services (i.e. power, telecommunications).

Management actions relevant to built features where there are public safety implications are summarised in this management plan, however the actual management controls and incident response are addressed in the Built Features Management Plan (BFMP). Monitoring and repairs of surface cracking is covered by the Land Management Plan.

The primary risk management controls under this PSMP include regular communication with relevant stakeholders, daily monitoring of subsidence effects, and provision of appropriate warning signage at access points and around hazards as required.

1.2 **Objectives**

Specific objectives and performance outcomes that have been developed for the management of public safety are summarised below in Table 1.



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Table 1 Public Safety Management Objectives and Performance Measures

Objectives	Performance Measure
<ul style="list-style-type: none">- No additional safety risk.- To prevent personal injury as a result of subsidence impacts.	<ul style="list-style-type: none">- No unmanaged risk to public safety as a result of mining operations.- No injuries or accidents occur as a result of subsidence impacts or subsidence damage.- All identified public safety risks are managed quickly and appropriately to avoid injury.- Any such safety incidents are recorded within the NCOPL occupational health and safety management system for appropriate follow up and corrective action, if required.

1.3 Statutory Requirements

This document has been prepared in accordance with Project Approval 08_0144 (as modified), relevant legislation and guidelines, and in consultation with relevant government agencies and affected infrastructure owners as discussed below. This plan has been prepared in accordance with the relevant legislation and guidelines.

1.3.1 Project Approval

The Project Approval requires that NCOPL prepare a PSMP to the satisfaction of the Division of Resources and Energy (DRE) “to ensure public safety in the mining area.” Specifically, Condition 4(g) of Schedule 3 reads:

4. *The Proponent shall prepare and implement an Extraction Plan for all second workings in the mining area to the satisfaction of the Secretary. This Plan must:*

(g) *Include the following to the satisfaction of DRE:*

- *A Public Safety Management Plan to ensure public safety in the mining area;*

In addition, Condition 2 of Schedule 3, of the Project Approval requires that the performance measure of “no additional risk” be posed to public safety as a result of underground mining activities.

1.3.2 Mining Lease

This report has also been prepared to partially address statutory requirements of the Narrabri Mine Mining Lease (ML) 1609 with regard to the preparation of Subsidence Management Plans. ML 1609 has been amended to include a reference to Extraction Plans. However, as the existing Extraction Plan is in a transition period, this PSMP has been prepared in accordance with the Division of Resources and Energy’s (DRE) *Guideline for Applications for Subsidence Management Approvals* (Department of Mineral Resources, 2003), also referred to as the “SMP Guidelines”. Under the SMP Guidelines, a PSMP is required where subsidence has a potential to cause safety hazards to the public. This Plan

is required to: “include management measures such as monitoring of areas posing safety risks, erection of warning signs, entry restrictions, backfilling of surface cracks and securing of potentially unstable structures/buildings or rockmasses, where required, and the provision of timely notification of mining progress to the community where management of public safety is required.”

Potential public safety risks have been identified in this Plan based on the site features and predicted subsidence, with management and monitoring measures proposed accordingly to minimise safety risks.

1.3.3 Work Health and Safety Legislation

This Extraction Plan has been developed to comply with the Work Health and Safety legislation including but not limited to:

- The Work Health and Safety Regulation 2011; and
- The Work Health and Safety (Mines) Regulation 2014.

1.4 Stakeholders Consultation

For the purposes of notification and consultation, key stakeholders for the management of public safety associated with Narrabri Mine's LW101 - 106 are listed in Table 2. Relevant stakeholders include affected landowners and residents, public authorities and public utility owners. Land ownership of the Extraction Plan area and surrounds is shown in Figure 1.

Prior to implementation (and should significant amendments to this document be required during mining) consultation with relevant stakeholders will be undertaken by NCOPL.

Table 2 Relevant Stakeholders and Representatives

Organisation	Representative	Phone	Postal Address
Division of Resources and Energy (DRE)	Director, Mine Safety Operations	02 4931 6644	PO Box 344 Hunter Regional Mail Centre, NSW 2310
Narrabri Mine	Technical Services Manager Environmental Officer	02 6794 4157 02 6794 4167	Locked Bag 1002, Narrabri NSW 2390
Narrabri Shire Council	Planning & Development Manager	02 6799 6866	Narrabri Shire Council PO Box 261 NARRABRI NSW 2390
Property No. 12 'Barton Hedge'	Tenant (NCOPL contractors)	<i>Refer to internal contacts register</i>	
Property No. 21* 'Westhaven'	Mr & Mrs Castro (Occupants / Leaseholders)	<i>Refer to internal contacts register</i>	
Property No. 22	D, P, B & N Grncarski (Landowners)	<i>Refer to internal contacts register</i>	



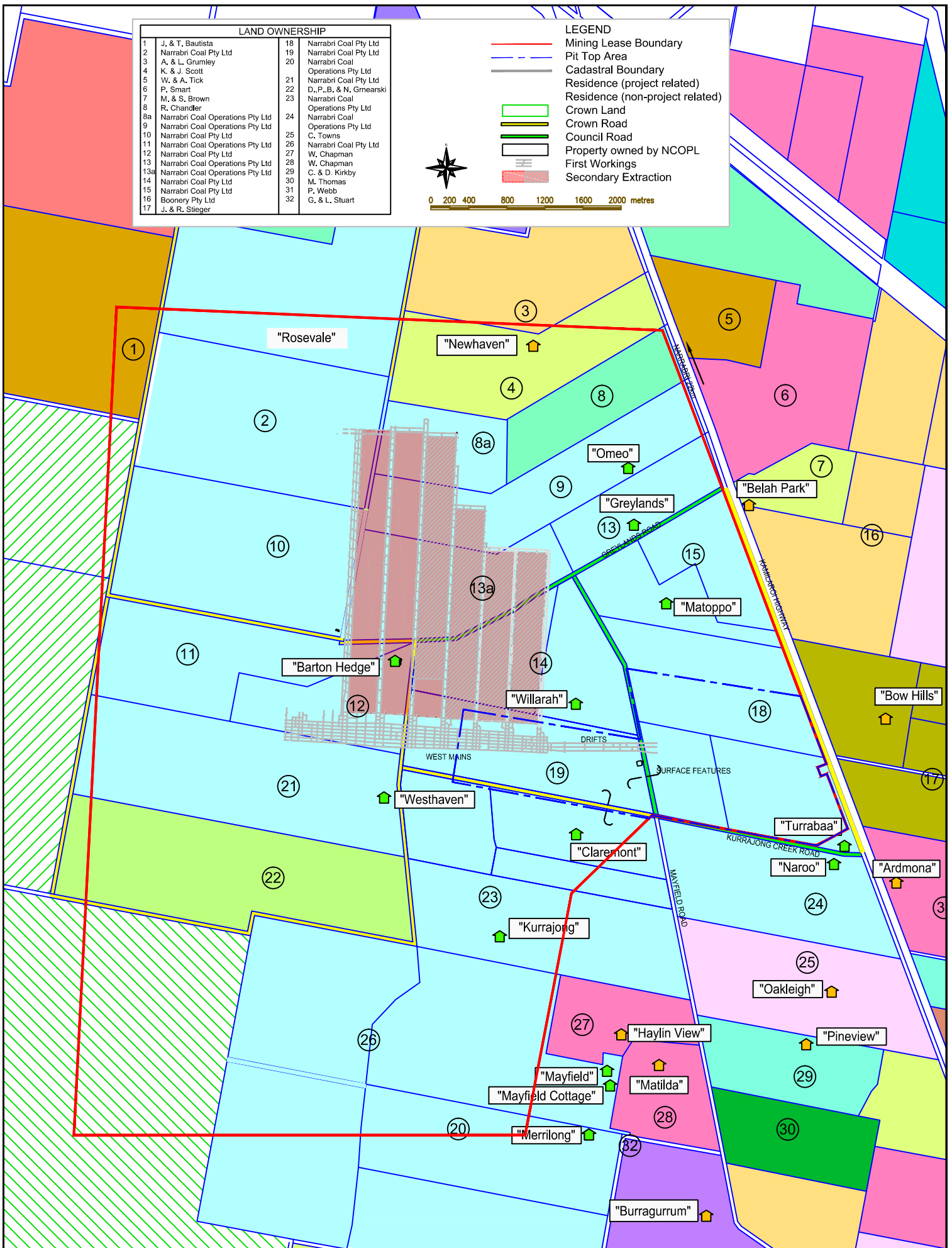
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Organisation	Representative	Phone	Postal Address
Crown Lands	Crown Lands Division	02 6764 5100	25-27 Fitzroy Street (PO Box 535) Tamworth NSW 2340
State Forests NSW	Forests NSW - Baradine	02 6843 1607	Cnr Lachlan & Darling Streets PO Box 63 Baradine NSW 2396
Essential Energy	Stephen Robinson	02 6701 7595	Network Planning Group, Northern Section Electra Street, Tamworth NSW
Telstra	Project Administration, Network Integrity Services	1800 653 935	Locked Bag 5035 Parramatta NSW 2124

**Property 12 ('Barton Hedge') and Property 21 ('Westhaven') are owned by NCOPL however Barton Hedge' is utilised by contractors and 'Westhaven' is subject to a long-term lease with the current occupants.*



	By	Date:
Drafted:	P. Coffey	25/06/15
Edited:		
Approved:		
Scale:	1:50,000	

LAND OWNERSHIP	
Plan No:	APN.07.02



NARRABRI MINE



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2 POTENTIAL SAFETY RISKS

2.1 Predicted Subsidence

Subsidence behaviour resulting from extraction of LW101 - 106 in the Hoskissons Seam is variable based on the width of the panel, overburden depth and chain pillar barrier widths. To include LW106 in the Extraction Plan, the subsidence predictions have been modelled and predictions updated, which includes using the measured levels for LW101 to LW104 (DGS, 2015). Maximum predicted and observed subsidence values (worst-case scenarios) for extraction of these panels, as presented in Table 3, have been adopted for the purposes of this management plan.

Table 3 Maximum Subsidence Predictions

Longwall Panel	Final Maximum Subsidence (S_{max})	Maximum Tilt	Maximum Strain - Tensile	Maximum Strain - Compressive
Units	m	mm/m	mm/m	mm/m
LW101	2.69	47	26	33
LW102	2.69	45	23	30
LW103	2.75	41	20	26
LW104	2.75	43	22	28
LW105	2.75	38	18	23
LW106	2.75	31	14	18

Source: DGS, 2015.

Based on a review of the observed surface cracking for LW101 to LW104, surface cracks have typically ranged from 50 mm to 100 mm wide, with some cracking up to 200 mm. The measured cracks have therefore been within the predicted crack width ranges of between 40 mm and 220 mm in the approved Extraction plan for LW101 to LW105. The revised cracking width range of 40 mm to 260 mm for LW101 to LW106 is therefore likely to be conservative. It is noted that the largest cracks are predicted over LW101 to LW104, with cracking over LW106 expected to range between 40 mm to 110 mm (DGS, 2015).

DGS (2015) outlines that based on reference to ACARP, 2003, the cracks will probably have developed by the time the longwall face has retreated past a given location for a distance equal to 1 to 2 times the cover depth. Cracks will usually develop within several days after a mine has retreated beneath a given location, with some of the cracks closing in the compression zone in the middle of the fully developed subsidence trough, together with new cracks developing in the tensile zones along and inside the panel sides several weeks later.

The cracks in the tensile strain zones will probably be tapered and extend to depths ranging from 5 to 15 m, and possibly deeper in near surface rock exposures. Cracks within compressive strain zones are generally low-angle shear cracks caused by failure and shoving of near surface strata. Some tensile type cracks can also be present due to buckling and uplift of near surface rock, if it exists (DGS, 2015).

The cracks usually develop in groups of two or three over a tensile zone of 20 m in width. Once the cracks develop, the strain is usually relieved in the adjacent ground, however, the

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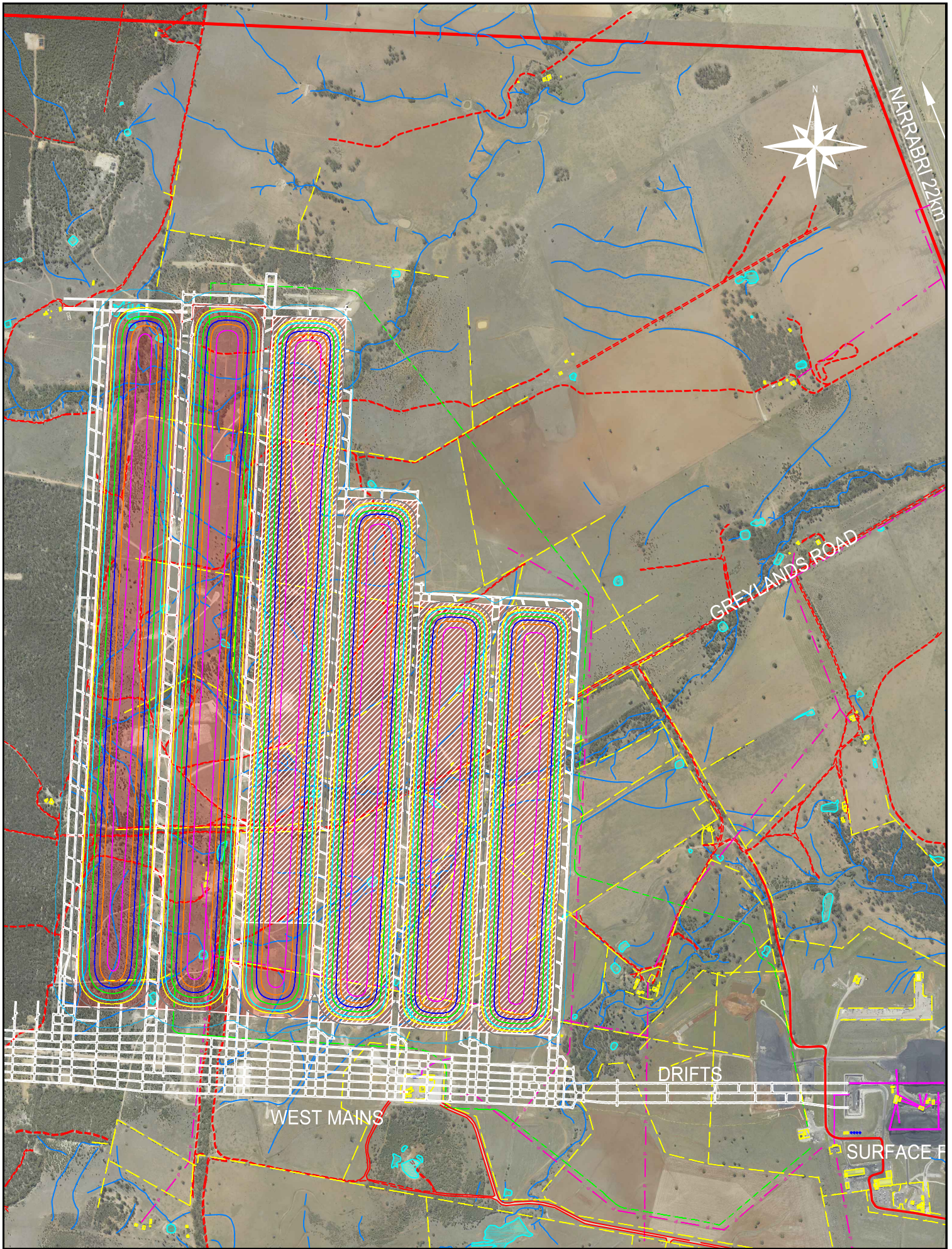
topography and near surface geology also can influence the extent of cracking (DGS, 2015).





















2.2 **Affected Features**

A layout of the proposed mine plan, affected surface features and predicted subsidence contours is included as Figure 2. Surface features relevant to public safety are discussed below.

2.2.1 **Land**

The subsidence effects summarised in Table 3 primarily affects land owned by NCOPL, and as such is private land. There is one property not owned by NCOPL that may experience minor subsidence effects. This property “Newhaven” is located outside the longwall footprint to the north of LW105.



LEGEND				By	Date:	Extraction Plan Area		 WHITEHAVEN COAL NARRABRI MINE	
	First Workings		Over Land Water Path		0.0m Subsidence Contour				
	Mine Lease Boundary		Unsealed Road		-0.1m Subsidence Contour		-1.5m Subsidence Contour		
	Secondary Extraction		Mine Infrastructure		-0.3m Subsidence Contour		-2.0m Subsidence Contour		
	Buildings		Ped Cable		-0.5m Subsidence Contour		-2.0m Subsidence Contour		
	Dams		Overhead Powerline						
	Tank		Fence						
Drafted:				A.Taylor	25/06/15				
Edited:									
Approved:									
Scale:				1:20,000		Plan No: APN.05.08			



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2.2.2 Roads

Greylands Road is a public road (unsealed) managed by Narrabri Shire Council that provides access to mine-owned landholdings (including 'Barton Hedge'), Jacks Creek State Forest to the west and to two private properties to the south: 'Westhaven' and "Property No. 22" (as referred to in the Environmental Assessment (R.W.Corkery, 2009)). To manage safety risks associated with subsiding Greylands Road Narrabri Mine has implemented a Greylands Road Management Plan, in consultation with Narrabri Shire Council, which outlines the road will be closed to the public until NCOPL purchase the land. The road is maintained to allow access for mine-related traffic.

The residence at 'Barton Hedge' is owned by NCOPL and is currently utilised by contractors as an office. 'Westhaven' is also owned by NCOPL, and is subject to a long-term lease to the current occupants. Property No. 22 is privately owned, but does not contain any habitable structures. Primary access to these properties is via Greylands Road, however alternatives (Scratch Road) are available.

Private unsealed access tracks occur across the surface of LW101 - 106 within NCOPL-owned property. These are accessible via either gates or stock grids off Greylands Road.

2.2.3 Public Utilities

Public utilities that will be potentially affected include a single 11kV power line servicing the dwelling on 'Barton Hedge', and 'Westhaven'. It is understood that a buried Telstra line also occurs across the lease, however the exact location and condition of this line is currently unknown, and is not reflected on any "Dial Before You Dig" Plans.

2.2.4 Buildings and other structures

NCOPL-owned land over the proposed mining area includes a residence within 'Barton Hedge' that is currently utilised by NCOPL contractors as an office. There are no privately-owned dwellings within the Extraction Plan area that will be subject to subsidence movements. Various farm sheds will be affected, as well as a windmill. The residence and associated structures on 'Barton Hedge' is located centrally above the southern portion of LW105.

2.2.5 Water Storage Dams

Approximately sixteen water storage dams occur within the Extraction Plan area, all of which are owned by NCOPL. All are non-engineered structures, constructed using an earth embankment from local materials.

2.2.6 Fences and Gates

The land overlying LW101 - 106 is divided by numerous fences and gates, delineating paddocks and controlling stock access.



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2.3 Potential Risks

A subsidence risk assessment has been undertaken to identify the risks associated with subsidence at the Narrabri Mine. The initial risk assessment was undertaken during February 2012 for LW101 to LW105. This risk assessment has since been reviewed and updated to include LW106, refer to Appendix K of the Extraction Plan. Risks to personal safety were identified as part of the workshop, with only one having the potential to result in a fatality: "Person receives electric shock from transmission lines due to the impacts of subsidence" (High risk level). This line has since been disconnected and as such, these risk ratings have been reduced to low. As a result, there are no high level risk ratings remaining and the risks associated with subsidence above LW101 to LW106 for the Narrabri Mine have been assessed as low to moderate.

Surface infrastructure affected by the extraction of LW101 - 106 that may pose a threat to safety if damaged by subsidence, is summarised in Table 4 below. Table 4 also outlines the proposed management control for each identified potential safety risk. Many of these controls are documented in the BFMP. However, controls that specifically fall under the scope of this PSMP are further detailed and documented in Table 5.

2.4 Control Measures

For each of the risks identified with respect to public safety, controls have been developed to ensure that the level of risk is eliminated or reduced.

The actions proposed that will be implemented by Narrabri Mine to fulfil the consent conditions outlined in Section 1.3 and to meet the performance measures (objectives) outlined in Section 1.2 are shown in Table 5. These actions have been categorised into Monitoring, Management, Incident Response and Notification/Consultation.



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Table 4 Subsidence Effects and Potential Risks

Surface Feature	Potential Subsidence Effect	Potential Safety Risk	Asset Owner / Stakeholder(s)	Control Measures	Reference
Land surface	Subsidence cracking of between 50 and 100 mm (generally).	Personal injury - trip/fall hazard, vehicle hazard. Individual trees may become unstable.	Narrabri Shire Council, users of Greylands Road, NCOPL	Erection of warning signage, road closure, communication with leaseholders, and staff/contractors.	Section 3
				Temporary fencing.	Section 3
				Visual monitoring and repair of surface cracks.	Land Management Plan
Roads	Surface cracking and ground deformation, formation of compression humps and dips and changes to drainage patterns.	Traffic hazard – vehicle accidents.	Narrabri Shire Council, users of Greylands Road, NCOPL	Erection of warning signage and communication with leaseholders, owners, staff and contractors.	Section 3
				Greylands Road closed to the public..	BFMP, Section 3
				Inspection and survey monitoring of roads.	BFMP, Section 3
				Daily inspection and implement repairs in response to observed impacts	BFMP
Electricity transmission lines	Tilt of lines/poles – loss of clearance, fallen transmission cables.	Damaged cables – electrocution risk. Increased risk of bushfire/grassfire if cables damaged / clearances reduced. Loss of power at residence – if required for communications or medical reasons	Essential Energy, Westhaven occupants, NCOPL	Pre and post mining survey of asset condition / line clearances and remediation if required. De-energise affected transmission line for period of undermining until inspection and repairs are completed to Essential Energy's satisfaction	BFMP
				Provided alternative power supply to dwellings as required.	BFMP
Water	Cracking of dam walls, loss	Dam wall failure resulting in sudden	NCOPL	Pre-mining assessment,	BFMP



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Surface Feature	Potential Subsidence Effect	Potential Safety Risk	Asset Owner / Stakeholder(s)	Control Measures	Reference
storage dams	of storage.	release of water – potential for personal injury if nearby.		monitoring, draining if required, and post-subsidence repair.	
Buildings	Potential structural instability rendering building unserviceable.	Building collapse or uneven structure– potential for personal injury if nearby.	NCOPL	Vacate dwelling and restrict access to buildings and surrounds until confirmed structurally sound, demolished or repaired.	BFMP
Fences and gates	Tilted fences / wire breakage / gates unable to open/close.	Livestock escape onto Greylands Road (and potentially to Kamilaroi Highway to east) – traffic hazard.	NCOPL	Move livestock to unaffected area.	BFMP
				Install temporary fencing to control stock movements in event of existing fence damage.	BFMP

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Table 5 Management, Monitoring and Responsibilities

Item	Action	Trigger/Timing	Responsibility	Reporting / Status
1.0	Monitoring			
1.01	Inspection of affected areas to ensure that all public safety controls identified in this Plan are in place and appropriate to the subsidence effects that are being observed.	Daily – areas of active subsidence until final remediation of subsidence effects have been completed	Earthworks Supervisor	Inspections to be documented internally – see BFMP
2.0	Management			
2.01	Undertake assessment of electricity transmission line in conjunction with Essential Energy and implement works as detailed in the Built Features Management Plan, including de-energising line for the period of impact, remediation post-subsidence to repair subsidence damage and reinstate required clearances, in accordance with the Essential Energy Management Plan	Prior to undermining transmission line within each longwall block	Technical Services Manager	Refer to BFMP
2.02	Narrabri Mine has implemented a Greylands Road Management Plan, in consultation with Narrabri Shire Council, which outlines the road will be closed to the public under a Traffic Control plan (TCP) until NCOPL purchase the land. The TCP requires signage to indicate the road is closed.	Complete.	Environmental Officer	Narrabri Shire Council approved 9 April 2015.
2.03	Where practicable, gates to NCOPL properties will be kept locked and external fencing erected to prevent unauthorised access, and/or alternatively, signage placed noting access restrictions (i.e. authorised visitors only) and potential hazards.	Prior to LW101, maintain throughout mining.	All staff	Include requirement in site inductions
2.05	Residential buildings within NCOPL's landholdings ('Barton Hedge') will be vacated prior to subsidence impacts occurring. These buildings and surrounds will then be secured to discourage unauthorised entry or use. Fencing should be located at a sufficient distance so as to prevent risk of personal injury in event of structural failure or falling debris.	At least two weeks prior to subsidence impact.	Environmental Officer	Document internally
2.06	Entry to all farm machinery and storage sheds will be restricted prior to and throughout active subsidence.	For the period of active subsidence.	Environmental Officer	Document internally



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Item	Action	Trigger/Timing	Responsibility	Reporting / Status
2.07	Where buildings are to be retained, site buildings will be inspected by a person(s) suitably qualified to assess the structural stability of the buildings. Buildings will only be returned to use once it is confirmed that the structures are sound and fit for purpose.	Following active subsidence.	Environmental Officer	Document internally
2.08	Buildings affected by subsidence will remain secured to prevent unauthorised access until such time as they are structurally assessed, demolished or repaired.	Following active subsidence.	Environmental Officer	Document internally
2.09	Temporary fencing of some areas will be installed to exclude stock and people from areas that are predicted to be subject to substantial surface cracking. This fencing will remain in place until such time that the surface cracking has been remediated.	Prior to and until completion of active subsidence.	Environmental Officer	Document internally
2.10	Stock will be managed to minimise the risk of livestock escape to Greylands Road (and therefore potentially onto the Kamilaroi Highway) through temporary fencing and/or relocation to areas not subject to active subsidence until subsidence impacts to fences and gates has been repaired.	During active subsidence.	Environmental Officer	Document internally
2.11	Consideration of public safety risks to be included as part of normal on-site risk assessments and reviews under the Narrabri Mine occupational health and safety management system.	Prior to subsidence impacts associated with this Extraction Plan.	Environmental Officer	Document internally
3.0	Incident Response			
3.1	All safety incidents at the mine will be handled in accordance with NCOPL's Health and Safety procedures and Workcover requirements (if appropriate). Subsequent reviews of this plan will be undertaken (if required) in accordance with the procedures documented in the EMS and Extraction Plan.	Near miss, injury or incident.	All staff	Requirements to be included in site inductions
4.0	Notification, Consultation & Reporting			
4.1	NCOPL has applied to purchase the Crown Land comprising Greylands Road within ML 1609. Consultation has been undertaken as part of this process which Narrabri Shire Council agreed to on 9 April 2015. Following purchase NCOPL will manage Greylands Road as a private road (including maintaining access rights if required by affected properties).	At least two weeks prior to subsidence affecting Greylands Road reserve	Environmental Officer	Document internally / records of correspondence



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Item	Action	Trigger/Timing	Responsibility	Reporting / Status
4.2	Forward information to relevant stakeholders regarding progress of the longwall and any relevant subsidence management actions.	Quarterly	Environmental Officer	Document internally
4.3	Notify affected stakeholders if additional public safety risks resulting from NCOPL's operations are identified.	In response to monitoring	Environmental Officer	Document internally
4.4	NCOPL has applied to purchase the Crown Land comprising Greylands Road within ML 1609. Consultation has been undertaken as part of this process which Narrabri Shire Council agreed to on 9 April 2015. Following purchase NCOPL will manage Greylands Road as a private road (including maintaining access rights if required by affected properties).	Commence consultation prior to commencement of LW101	Environmental Officer	Document internally Report closure in AEMR.
4.5	'Westhaven' has been provided with suitable alternative (e.g. diesel-powered generators) power supply, in accordance with the Essential Energy Management Plan, which will be maintained until repairs are complete and line is re-energised.	Complete.	Environmental Officer	Document internally

3 **IMPLEMENTATION AND OPERATION**

NCOPL have adopted a structured and systematic approach to the management of safety, health, environment and community relations to specifically meet the needs of the operation. The policies and procedures that have been developed by NCOPL are to protect the health and safety of employees, contractors, sub-contractors, visitors and the general public, to protect the environment and to ensure compliance with all relevant legislation.

3.1 **Resources and Responsibilities**

To ensure this management plan is implemented as intended, responsibilities have been assigned to relevant NCOPL personnel (see Table 5 and Table 6).

Table 6 Roles and Responsibilities

Roles	Responsibilities
Technical Services Manager	- Ensure this PSMP is implemented and adhered to.
	- Ensure that adequate resources are available to NCOPL personnel to facilitate the completion of their responsibilities under this management plan.
	- Authorise changes to this PSMP.
Environmental Officer	- Ensure that all monitoring and reporting is carried out within the timeframes specified, checked, processed and filed appropriately.
	- Liaise with stakeholders regarding subsidence impact management.

3.2 **Reporting**

Each of the reporting requirements listed in Table 5 are detailed in the Extraction Plan and Environmental Management Strategy as applicable.

Further reporting requirements relating to recording and notification of safety incidents are contained under NCOPL's Health, Safety and Environment procedures.

3.3 **Audit and Review**

An internal review of this PSMP will be conducted in response to:

- An incident recorded as a result of the operations that affects safety;
- A significant change in operation that may result in increased/additional public safety risks and which are not currently addressed adequately in this plan;
- Any relevant risk assessment that identifies new risks that are not addressed in this document;
- Statutory requirements or directions/conditions of approvals requiring such action; or
- Recommendations as a result of internal or external audits.

This plan may be audited (if required) under the scope of any external environmental compliance audits or safety audits.

A complete review and update of the plan will be undertaken prior to second workings progressing in subsequent longwall panels.

	NARRABRI MINE ENVIRONMENTAL MANAGEMENT SYSTEM	Document Owner:	Technical Services Manager
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WHC_PLN_NAR_PUBLIC SAFETY MANAGEMENT PLAN LW101 to LW106			

4 **REFERENCES**

Ditton Geotechnical Services (DGS) (2015) Mine Subsidence Assessment for the Proposed Addition of Longwall (LW) 106 to the Approved LW101 to LW105 Extraction Plan at the Narrabri Mine, Narrabri.

Ditton Geotechnical Services (DGS) (July 2011) Mine Subsidence Effect Predictions and Impact Assessment for the Proposed Longwalls 1 to 5 at the Narrabri Coal Mine, Narrabri.

RW Corkery & Co. Pty Ltd (November 2009) Environmental Assessment for the Narrabri Coal Mine Stage 2 Longwall Project, Project Application No: MP08_0144.