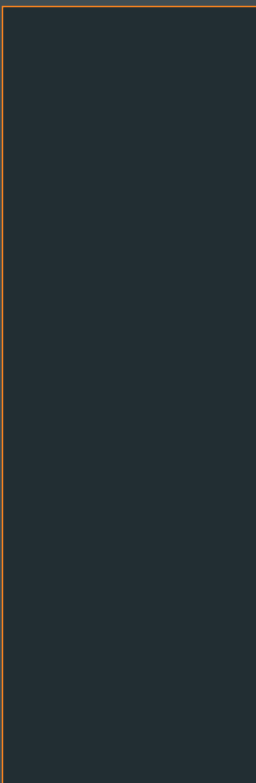




WILPINJONG COAL PROJECT

APPENDIX L

Preliminary Hazard Analysis



WILPINJONG COAL PROJECT
APPENDIX L
PRELIMINARY HAZARD ANALYSIS

PREPARED BY
WILPINJONG COAL PTY LIMITED

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L1 INTRODUCTION

The Wilpinjong Coal Project (herein referred to as 'the Project') is located approximately 40 kilometres (km) north-east of Mudgee near the village of Wollar within the Mid-Western Regional local government area (LGA), in central New South Wales (NSW). The Project is being developed by Wilpinjong Coal Pty Limited (WCPL), a wholly owned subsidiary of Excel Mining Limited.

The Project includes the development of an open cut mining operation, together with the construction and operation of associated rail and coal handling/train loading infrastructure. The Project has an expected life of 21 years.

The Project has an expected peak production rate of up to approximately 13 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal. Up to 8.5 Mtpa of the ROM coal would be washed in the Coal Handling and Preparation Plant (CHPP). Further details are provided in Section L2.

This Preliminary Hazard Analysis (PHA) has been conducted as part of the Environmental Impact Statement (EIS) to evaluate the hazards associated with the Project in accordance with the general principles of risk evaluation and assessment outlined in the NSW Department of Urban Affairs and Planning (DUAP) *Multi-Level Risk Assessment Guidelines* (1999).

Assessed risks are compared to the qualitative risk assessment criteria provided in Australian Standard/New Zealand Standard (AS/NZS) 4360:1999 *Risk Management*. Further, this PHA considers the qualitative criteria provided in *Risk Criteria for Land Use Planning: Hazardous Industry Planning Advisory paper No. 4* (DUAP, 1992).

L1.1 OBJECTIVE AND SCOPE

The objective of this PHA is to assess the risks posed by the Project to the environment and surrounding land users and compare the identified risks with applicable qualitative criteria. This assessment considers risks to the environment, members of the public and their property arising from sudden and unexpected incidents (ie. equipment failure, operator error and external events). The assessment does not consider risks to WCPL employees or property and similarly does not consider those risks that are not sudden, nor unexpected (eg. long term effects of blast vibration on building structures).

This report should be read in conjunction with the following studies conducted for the EIS:

- Surface Water Assessment (Appendix A).
- Groundwater Impact Assessment (Appendix B).
- Assessment of the Acid Forming Potential and Salinity of Overburden, Coal and Coal Washery Waste (Appendix C).
- Construction, Operation and Transportation Noise and Blasting Impact Assessment (Appendix D).
- Air Quality Impact Assessment (Appendix E).

L1.2 STUDY METHODOLOGY

The methodology employed during the preparation of this PHA was as follows:

- (i) Identify the hazards associated with the Project.
- (ii) Examine the potential consequences of identified events.
- (iii) Qualitatively estimate the likelihood of events.
- (iv) Propose risk mitigation measures.
- (v) Qualitatively assess risks to the environment, members of the public and their property arising from sudden and unexpected incidents and compare these to applicable qualitative criteria.
- (vi) Recommend further risk mitigation or remedial measures if considered warranted.

The above methodology was implemented during a PHA workshop at the Excel Mining Limited offices on 21 January 2005. The workshop participants included senior representatives from Wilpinjong Coal Pty Limited, Thiess Pty Ltd and Resource Strategies Pty Ltd, specifically:

- Peter Doyle – Wilpinjong Coal Pty Limited Project Manager.
- Scott Winter – Thiess Pty Ltd Project Manager.
- Geoff Marschke – Thiess Pty Ltd Project Engineer.
- Josh Hunt – Resource Strategies Pty Ltd Senior Environmental Manager.
- Clive Berry – Resource Strategies Pty Ltd Environmental Project Manager.

L1.3 RISK CRITERIA

This assessment compares the assessed risks of the Project with the qualitative risk assessment criteria provided in AS/NZS 4360:1999 *Risk Management* and considers the following qualitative criteria (summarised from DUAP, 1992):

- All 'avoidable' risks should be avoided. This necessitates investigation of alternative locations and technologies where applicable.
- The risks from a major hazard should be reduced wherever practicable, irrespective of the value of the cumulative risk level from the whole installation.
- The consequences (effects) of the more likely hazardous events should, wherever possible be contained within the boundaries of the installation.
- Where there is an existing high risk from a hazardous installation, additional hazardous developments should not be allowed if they add significantly to that existing risk.

L1.3.1 Qualitative Measures of Consequence, Likelihood and Risk

To undertake a qualitative risk assessment it is useful to define (in a descriptive sense) the various levels of consequence of a particular event, and the likelihood of such an event occurring. AS/NZS 4360:1999 *Risk Management* provides qualitative measures of consequence and likelihood for hazardous events (Table L-1 and Table L-2).

Table L-1
Qualitative Measures of Consequence

Descriptor	Example Detail Description
Insignificant	No injuries, low financial loss.
Minor	First aid treatment, on-site release immediately contained, medium financial loss.
Moderate	Medical treatment required, on-site release contained with outside assistance, high financial loss.
Major	Extensive injuries, loss of production capability, off-site release with no detrimental effects, major financial loss.
Catastrophic	Death, toxic release off-site with detrimental effect, huge financial loss.

Source: AS/NZS 4360:1999 *Risk Management*

Table L-2
Qualitative Measures of Likelihood

Descriptor	Example Detail Description
Almost Certain	Is expected to occur in most circumstances
Likely	Will probably occur in most circumstances
Possible	Might occur at some time
Unlikely	Could occur at some time
Rare	May occur only in exceptional circumstances

Source: AS/NZS 4360:1999 *Risk Management*

Combining the data presented in Table L-1 and Table L-2, Table L-3 provides a qualitative risk analysis matrix to assess risk levels.

Table L-3
Qualitative Risk Analysis Matrix – Level of Risk

Likelihood	Consequences				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	High	High	Extreme	Extreme	Extreme
Likely	Moderate	High	High	Extreme	Extreme
Moderate	Low	Moderate	High	Extreme	Extreme
Unlikely	Low	Low	Moderate	High	Extreme
Rare	Low	Low	Moderate	High	High

Source: AS/NZS 4360:1999 *Risk Management*

Legend – Risk Levels:

Low Manage by routine procedures

Moderate Management responsibility must be specified

High Senior management attention needed

Extreme Immediate action required

An event that presents an extreme or high level of risk must be subject to management control or mitigation measures to reduce the consequences of the event and/or the likelihood of the event to acceptable levels. Whilst risks should be avoided if possible, risks are also a component of any undertaking and some residual risks can be accepted following the application of risk mitigation measures. Risk acceptance criteria for the Project have been formulated following consideration of the *Hazardous Industry Planning Advisory Paper Number 4* (DUAP, 1992) and AS/NZS 4360:1999 *Risk Management* guidelines, viz.:

Qualitative Risk Acceptance Criteria:

The risk posed by an event is at a level where consequences are considered minor or insignificant and likelihood of occurrence is considered as rare or unlikely, given the proposed risk mitigation and minimisation measures.

The hazard identification summary table (Attachment LA) illustrates the systematic application of the above criteria for the Project. Figure L-1 provides a schematic illustration of the risk management process.

L2 PROJECT OVERVIEW

In summary, the Project would comprise of the following components:

- development and operation of an open cut mine within the Mining Lease Application (MLA 1) area to produce coal for domestic electricity generation and export markets;
- selective highwall mining of the Ulan Seam within the MLA 1 area;
- a CHPP and mine facilities area;

- water management infrastructure including the relocation of Cumbo Creek;
- water supply bores and associated pump and pipeline system;
- placement of mine waste rock (i.e. overburden, interburden/partings and coarse rejects) predominantly within mined-out voids;
- placement of tailings within a combination of out-of-pit and in-pit tailings storages;
- development and rehabilitation of final mine landforms and establishment of woodland vegetation in areas adjacent to the Project;
- a mine access road, temporary construction camp access road, internal access roads and haul roads;
- closure of Wilpinjong Road and Bungulla Road;
- realignment of two sections of Ulan-Wollar Road (including the relocation of two road-rail crossings);
- relocation of the existing 11 kilovolt electricity transmission line;
- an on-site temporary construction camp to accommodate up to 100 people during the construction phase;
- a rail spur and rail loop;
- coal handling and train loading infrastructure;
- transportation of product coal to market via train; and
- Enhancement and Conservation Areas.

Figure L-2 illustrates the general arrangement of the Project. Section 2, Volume 1, of the Project EIS provides a detailed Project description, including figures showing the development of the open cut mine over the 21 year Development Application period.

L3 HAZARD IDENTIFICATION

L3.1 DESCRIPTION OF HAZARDOUS MATERIALS

Potentially hazardous materials required for the Project are generally limited to conventional explosives, diesel, petrol and hydrocarbons. A brief description of these materials is presented below.

L3.1.1 Explosives

Explosives required for the Project include initiating products and detonators, Ammonium Nitrate Fuel Oil (ANFO) and emulsion explosives. These commonly used forms of explosives would be utilised in accordance with safety and operational procedures developed in accordance with the requirements of Australian Standard (AS) 2187.1-1998 *Explosives – Storage, Transport and Use – Storage* and the *Coal Mines (Open Cut) Regulation 1999*.

Detonators and explosive products (eg. ANFO) are classified Class 1.1 (explosives with mass explosion hazard) under the *Australian Code for the Transport of Dangerous Goods by Road and Rail* (ADG Code, 1998). Ammonium nitrate is classed as an oxidising agent (Class 5.1).

ANFO would be the main explosive to be used on-site. ANFO would be produced by a licensed contractor on an as required basis so that there will be no bulk storage of this explosive. There will be a temporary storage of ANFO in blast holes as shots (blasts) may take a number of days to prepare. Emulsion explosives and initiating products would be delivered to site on an as required basis.

The annual explosive consumption for the Project would be approximately 2,200 tonnes per annum (tpa).

L3.1.2 Diesel

Diesel is classified as a combustible liquid by AS 1940-1993 *The Storage and Handling of Flammable and Combustible Liquids* (Class C1) for the purposes of storage and handling but is not classified as a dangerous good by the criteria of the ADG Code. In the event of a spill, diesel is damaging to soils and aquatic ecosystems and fires can occur if it is ignited (flash point 61-150°C).

Use of diesel at the Project would be managed in accordance with the requirements of AS 1940-1993 *The Storage and Handling of Flammable and Combustible Liquids* and the proposed use of diesel at the Project does not include usage at elevated temperatures, therefore fires from conventional use are unlikely. Electronically controlled refuelling systems would be installed for the Project.

The risks associated with the Project include diesel transport requirements and diesel storage and usage. The proposed diesel storage facility would have a capacity of up to 50,000 litres (L). Annual diesel usage would be up to approximately 13 million litres (ML).

L3.1.3 Petrol

Petrol is classified as a flammable liquid (Class 3) and as such is classified as a dangerous good by the criteria of the ADG Code.

Petrol may be stored on-site in small drums (in accordance with Australian Standard (AS) 1940-1993 *The Storage and Handling of Flammable and Combustible Liquids*.) for use in emergency situations. Petrol engine vehicles would normally be fuelled off-site at local service stations.

L3.1.4 Hydrocarbons

An oil storage facility would also be installed comprising 1,000 L oil storage pods with dispensing pumps and flow meters. Hydrocarbon storage facilities would be designed, located, constructed and operated in accordance with Australian Standard (AS) 1940-1993 *The Storage and Handling of Flammable and Combustible Liquids*.

Waste hydrocarbons would be collected, stored and removed by licensed waste transporters on a periodic basis. Workshop hydrocarbon spills and leaks, and truck washdown areas would be contained by purpose built oil/water separator systems which would be inspected and maintained on a regular basis.

L3.2 HAZARD IDENTIFICATION PROCESS

The Project hazard identification summary table (Attachment LA) was formulated during the PHA workshop discussed in Section L1.2. It provides a summary of the potential off-site risks and hazards identified for the Project and a qualitative assessment of the incremental risks posed.

L3.2.1 Project Components

For the purposes of risk identification and assessment, the Project was subdivided into the following areas:

- transport to site;
- on-site storage;
- general operations;
- open cut operations;
- CHPP;
- transport on-site; and
- transport off-site.

L3.2.2 Incident Classes

The following generic classes of incident were identified:

- fire;
- explosion;
- leaks/spills;
- theft;
- unplanned movement to off-site;
- excessive vibration; and
- vehicle accident.

L3.2.3 Project Risk Prevention and Remedial Procedures

A number of hazard preventative and mitigative measures will be described in management plans for the Project, including the following:

- **Blast Management Plan (BMP)** – The BMP would include provisions for the temporary closure of short sections of the Ulan – Wollar Road, Mudgee – Ulan Road and Sandy Hollow to Gulgong Railway when blasting is in close proximity to the roads or railway.
- **Bushfire Management Plan** – A Bushfire Management Plan would be prepared in consultation with the Rural Fire Service and would include descriptions of fire fighting equipment and fire breaks.
- **Site Water Management Plan (SWMP)** – The SWMP would include supervision during the construction of pipelines and containment structures and maintenance of this infrastructure, including regular inspections.
- **Traffic Management Plan (TMP)** – The TMP would include a description of the measures that would be employed during the construction of new sections of road and new intersections.

In addition, the following hazard mitigation/preventative measures would be adopted for the Project:

- **Maintenance** – Ongoing and timely maintenance of all mobile and fixed plant and equipment in accordance with the recommended maintenance schedule, and consistent with the maintenance schemes required by legislation. Only vehicles permitted to carry dangerous goods would be used for explosive transport.
- **Staff Training** – Operators and drivers would be trained and (where appropriate) licensed for their positions. Only those personnel licensed to undertake skilled and potentially hazardous work would be permitted to do so.
- **Engineering Structures** – Mining and civil engineering structures would be constructed in accordance with applicable codes, guidelines and Australian Standards. Where applicable, WCPL would obtain the necessary licences and permits for engineering structures (eg. Dam Safety Committee approvals).
- **Blast Management** – As reported in Appendix D of the Project EIS, site specific management measures would be implemented to reduce the potential for off-site impacts of blast vibration and overpressure.
- **Contractor Management** – All contractors employed by WCPL would be required to operate in accordance with the relevant Australian Standards, NSW Legislation and WCPL's Contractor Management Plan.
- **Water Management** – As reported in Appendix A of the Project EIS, water management structures would be constructed to separate runoff from undisturbed areas and disturbed areas. The collection drain and sediment dam system would be designed and constructed with capacity to contain potential spills or fire suppression water runoff within operational areas.
- **Coal Stockpile Management** – Coal stockpiles would be managed to reduce the potential for spontaneous combustion.

- **CHPP Management** – CHPP management procedures would be developed to reduce the potential for spillages of contaminated water.
- **Emergency Response** – Emergency response procedures manuals and systems would be developed.
- **Storage Facilities** – Storage and usage procedures for potentially hazardous materials (ie. fuels and lubricants) would be developed.

L4 RISK MANAGEMENT AND EVALUATION

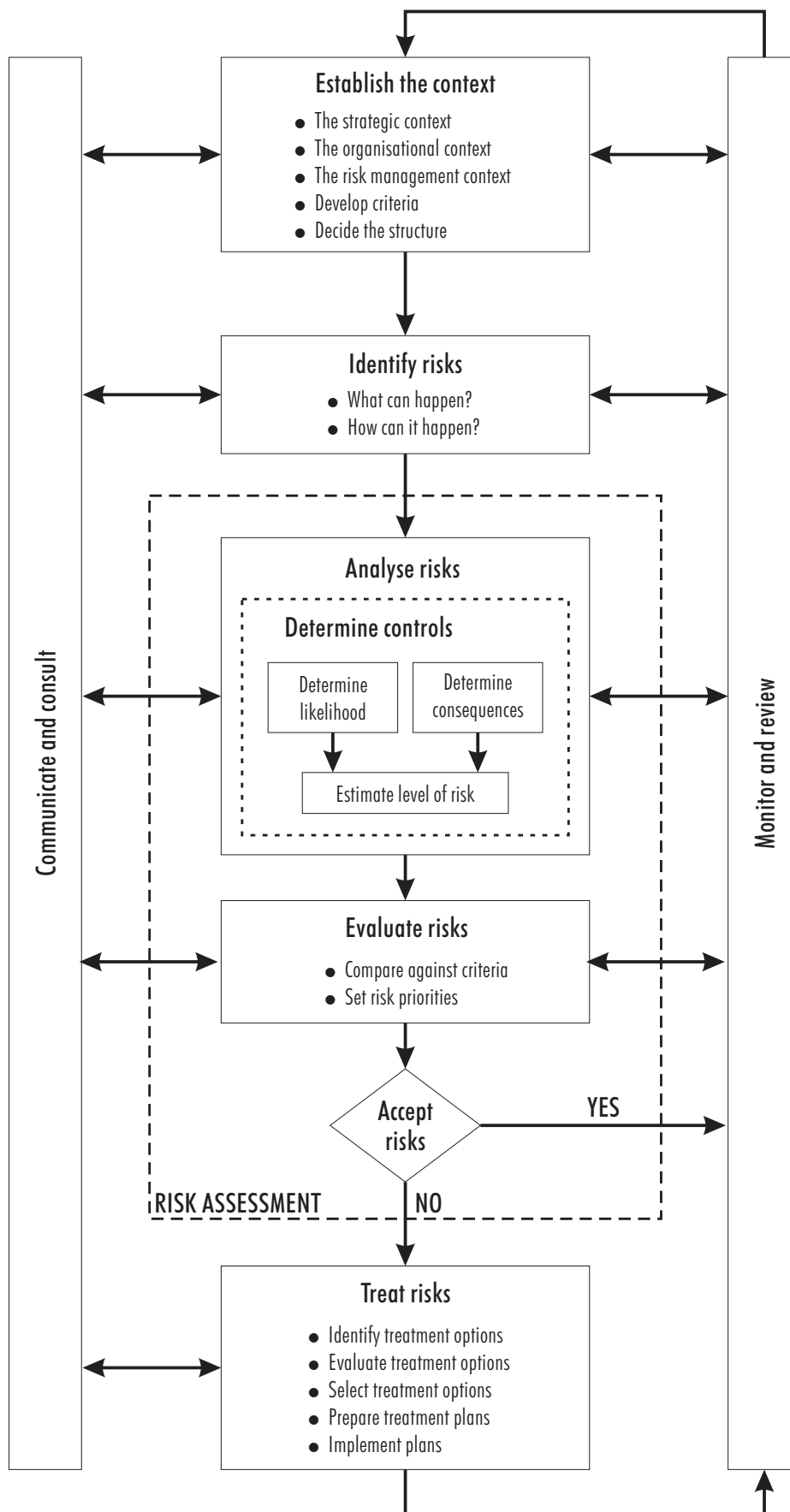
Attachment LA presents a qualitative assessment of risks associated with the construction and operation of the Project. The assessment evaluates the risk of the Project impacting on the environment, members of the public and their property. Preventative measures have been proposed, where required, to produce a 'low' level of risk in accordance with the risk acceptance criteria described in Section L1.3.1. Proposed preventative measures are identified in Section L3.2.3.

L5 REFERENCES

Department of Urban Affairs and Planning (DUAP) (1999) *Multi-Level Risk Assessment*. Revised Edition.

Department of Urban Affairs and Planning (DUAP) (1992) *Hazardous Industry Planning Advisory Paper No 4 – Risk Criteria for Land Use Safety Planning*.

FIGURES

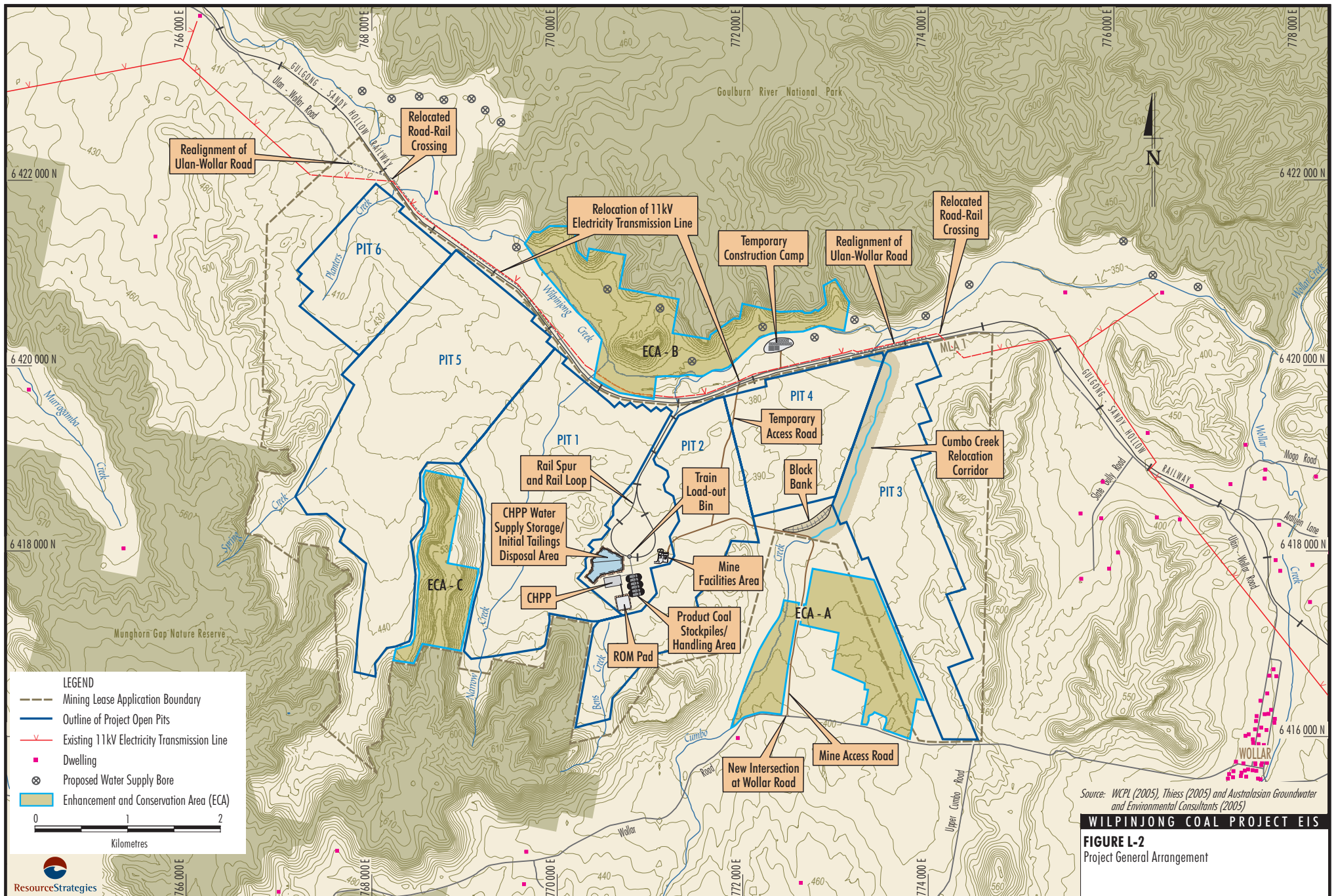


After: AS/NZS 4360:1999 Risk Management

WILPINJONG COAL PROJECT EIS

FIGURE L-1

Risk Management Process



Source: WCPL (2005), Thiess (2005) and Australasian Groundwater and Environmental Consultants (2005)

WILPINJONG COAL PROJECT EIS

FIGURE I-2
Project General Arrangement

ATTACHMENT LA

WILPINJONG COAL PROJECT -
RISK IDENTIFICATION TABLE

Project Component	Incident Type	Scenario	Proposed Preventative Measures	Likelihood	Consequence	Risk
Transport to Site (Explosives, Fuel, Chemicals and General Goods, Mobile & Fixed Plant, Construction Materials)	Spill	Poor maintenance, poor design, collision, human error or malicious act leading to off-site impacts.	<ul style="list-style-type: none"> Contractors licensed and operate in accordance with Australian Standards and NSW Legislation. WCPL Contractor Management Plan – including specification of transport routes to site, based on nature of load. Radio/mobile telephone communications and on-board fire fighting equipment. 	Rare	Minor	Low
	Fire					
	Explosion					
	Theft	Malicious act resulting in off-site impacts.	<ul style="list-style-type: none"> As above. WCPL Contractor Management Plan – including specification of security measures. 	Rare	Minor	Low
On-Site Storage (Fuels, Lubricants, Compressed Gases, Chemicals, Explosives and Water)	Leak/Spill	Failed tank or pipe leading to off-site impacts including chemical or fuel contamination.	<ul style="list-style-type: none"> Design of structures/tanks/pipes to relevant standards and legislation. Bunding of storage facilities. Regular inspections and maintenance where required. Emergency Response Plan. 	Rare	Minor	Low
	Spill	Failed dam leading to off-site contamination.	<ul style="list-style-type: none"> Design of dam structures to relevant standards. Regular inspections and maintenance where required. Emergency Response Plan. 	Rare	Minor	Low
	Spill	Exceeded dam capacity leading to an overflow event resulting in off-site impacts.	<ul style="list-style-type: none"> Inspections and intervention where required. Design of dam structures to relevant standards and required containment capacities. Emergency Response Plan. 	Rare	Insignificant	Low
	Explosion	On-site explosion leading to off-site bushfire.	<ul style="list-style-type: none"> Regular inspections and maintenance where required. Bushfire Management Plan. Emergency Response Plan. 	Rare	Minor	Low

Project Component	Incident Type	Scenario	Proposed Preventative Measures	Likelihood	Consequence	Risk
On-Site Storage (Continued)	Theft	Malicious act resulting in off-site impacts.	<ul style="list-style-type: none"> Secure storage. Explosive Magazine designed to appropriate standards and legislation – including security measures. Emergency Response Plan. 	Rare	Minor	Low
On-Site Storage (Ammonium Nitrate)	Leak/Spill	Failed storage vessel leading to off-site impacts including chemical contamination.	<ul style="list-style-type: none"> Design of structures/tanks/pipes to relevant standards, including the relevant provisions of: <ul style="list-style-type: none"> Australian Standard 4326-1995 <i>The Storage and Handling of Oxidising Agents</i>. Explosive information Bulletin No. 7, "Guidelines for Ammonium Nitrate Storage" Department of Natural Resources and Mines, QLD Government. "Explosion Hazard from Ammonium Nitrate" Chemical Emergency Preparedness and Prevention Office, US EPA. Bunding of storage facilities. Regular inspections and maintenance where required. 	Rare	Minor	Low
	Fire or Explosion	Poor maintenance, poor design, collision or human error leading to off-site fire/explosion-related impacts.	<ul style="list-style-type: none"> As above. Site policies, management plans and procedures. Containment structures. Operator training. Development and maintenance of appropriate fire breaks. Bushfire Management Plan in consultation with the Rural Fire Service. Emergency Response Plan. 	Rare	Minor	Low

Project Component	Incident Type	Scenario	Proposed Preventative Measures	Likelihood	Consequence	Risk
On-Site Storage (Continued)	Theft	Malicious act resulting in off-site impacts.	<ul style="list-style-type: none"> Restriction of access to storage areas, including securing storage facilities. Provision of adequate lighting around storage facilities. Installation of an alarm system. Monitoring of access to the mine site. Installation of a perimeter fence to reduce ease of access to mine site. 	Rare	Minor	Low
General Operations (Construction, borefield construction and operation, temporary construction camp, creek diversion construction, ground preparation, waste excavation, mine waste rock emplacements, coal mining, highwall mining, rehabilitation, CHPP, coal transport and tailings)	Vehicle Accident	Vehicle accident on a public road due to construction activities associated with the mine.	<ul style="list-style-type: none"> Development of a Traffic Management Plan in consultation with the RTA and Mid-Western Regional Council (MWRC). Design of new roads/intersections to appropriate standards and legislation. 	Unlikely	Minor	Low
	Spill	Water supply, creek diversion or containment structure not adequately built or maintained leading to off-site discharge of silt or mine water.	<ul style="list-style-type: none"> Site Water Management Plan, including: Design of pipelines, dams and drainage structures to relevant standards and required containment capacities. Supervision during construction. Inspection of containment structures and pipes. Maintenance or intervention where required. 	Rare	Minor	Low
	Spill	Containment structure not adequately built or maintained leading to off-site discharge of diesel or chemicals.	<ul style="list-style-type: none"> Design to appropriate standards/legislation. Supervision during construction. Regular maintenance. Inspection of containment structures and pipes. 	Rare	Minor	Low
	Fire	Mobile plant, powerlines, fixed plant, human action or spontaneous combustion leading to off-site fire related impacts.	<ul style="list-style-type: none"> Implementation of a Bushfire Management Plan to be prepared in consultation with the Rural Fire Service, including: Regular inspections of mobile and fixed plant, coal stockpiles, fire fighting equipment and fire breaks. Regular maintenance of mobile plant and fire fighting equipment. 	Rare	Minor	Low

Project Component	Incident Type	Scenario	Proposed Preventative Measures	Likelihood	Consequence	Risk
General Operations (Continued)	Fire (Cont.)		<ul style="list-style-type: none"> Development and maintenance of appropriate fire breaks. Emergency Response Plan. Implementation of a Coal Stockpile Management Plan. Training and competency assessment of plant operators. 			
General Operations (Drill and blast)	Unplanned movement to off-site	Blasting leading to flyrock damaging property/persons off-site.	<ul style="list-style-type: none"> Blast Management Plan, including: Planning and design of blast events to ensure adequate control and buffer distances. Operational procedures- blasting undertaken by appropriately licensed personnel. Where blasting occurs in close proximity to the Ulan-Wollar and Mudgee-Wollar Roads, temporary road closures would occur in accordance with RTA and MWRC requirements and a Traffic Management Plan. Following blasting, the road would be checked for debris prior to re-opening. Where blasting occurs in close proximity to the Sandy Hollow to Gulgong Railway, blasting operations would occur in accordance with ARTC and rail operator's requirements. Following blasting, the railway would be checked for debris prior to re-opening. 	Unlikely	Minor	Low
	Excessive vibration	Vibration causing damage to natural or man-made features (eg. rock art).	<ul style="list-style-type: none"> Blast Management Plan. Planning and design of blast events to ensure adequate control and buffer distances. Operational procedures- blasting undertaken by appropriately licensed personnel. Monitoring to validate blast design and performance. 	Rare	Minor	Low

Project Component	Incident Type	Scenario	Proposed Preventative Measures	Likelihood	Consequence	Risk
Open Cut Operations	Pit slope failure	Slump or collapse of open cut walls resulting in damage to rail or road infrastructure.	<ul style="list-style-type: none"> Establishment of appropriate buffer distances – including the maintenance of a buffer (40m or greater) between the top of the open cut wall and the centre line of the Sandy Hollow to Gulgong Railway. Open cut walls designed to appropriate geotechnical standards. Regular inspections and surveys of the open cut walls during their development. 	Rare	Minor	Low
CHPP (Tailings and return water pipelines)	Leaks/Spills	Pipeline failure leads to off-site release of tailings.	<ul style="list-style-type: none"> The pipeline systems designed to appropriate standards. Regular inspections and maintenance as required. Bunding of portions of the pipeline that are outside of the catchment of containment structures or the open cuts. Bunds to be designed to divert tailings to a containment structure. 	Rare	Minor	Low
Transport On-Site (Explosives, Fuel, Chemicals and General Goods)	Spill	Poor maintenance, poor design, collision or human error leading to off-site impacts.	<ul style="list-style-type: none"> Contractors licensed and operate in accordance with Australian Standards and NSW Legislation. WCPL Contractor Management Plan. Site policies, management plans and procedures. Containment structures. Operator training. 	Rare	Minor	Low
	Fire					
	Explosion					
	Theft	Malicious act resulting in off-site impacts.	<ul style="list-style-type: none"> As above. WCPL Contractor Management Plan – including specification of security measures. 	Rare	Minor	Low

Project Component	Incident Type	Scenario	Proposed Preventative Measures	Likelihood	Consequence	Risk
Transport Off-Site (Rail Loop Operations)	Leaks/Spills	Overloading, derailment or collision leading to coal or fuel spillage off-site.	<ul style="list-style-type: none"> Development of operating procedures and training to minimise the potential for overloading. Regular inspections of train loading activities and rail infrastructure and intervention/maintenance where required. WCPL Contractor Management Plan. Appropriately qualified engineers to design the rail infrastructure and signalling systems. 	Unlikely	Minor	Low