

Permit Number: EPML00744813

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Takes Effect From: 6 July 2015

Anniversary date: 21 September

Environmental authority holder(s)

Name	Registered address
CAML Resources Pty Ltd	Ground Floor 201 Charlotte Street Brisbane QLD 4000
Nippon Steel & Sumitomo Metal Australia Pty Ltd	
Anglo Coal (Foxleigh) Pty Ltd	

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
<p><i>Environmental Protection Regulation 2008, Schedule 2A:</i></p> <p>ERA13 Mining black coal</p> <p><i>Environmental Protection Regulation 2008, Schedule 2:</i></p> <p>ERA 31 Mineral processing, Threshold 2 – Processing, in a year, the following quantities of mineral products, other than coke – (b) more than 100,000t.</p> <p>ERA 8 Chemical storage, Threshold 3 – Storing more than 500m3 total quantity of chemicals of Class 1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection 1(c).</p> <p>ERA 15 Fuel burning – Using fuel burning equipment that is capable of burning at least 500kg of fuel in an hour.</p> <p>ERA 16 Extractive and screening activities, Threshold 3 – Screening, in a year, the following quantity of material – (c) more than 1,000,000t.</p> <p>ERA 33 Crushing, milling grinding or screening – Crushing, grinding, milling or screening more than 5,000t of material in a year.</p> <p>ERA 56 Regulated waste storage – Receiving and storing regulated waste.</p> <p>ERA 60 Waste disposal, Threshold 1 – Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) – (a) less than 50,000t.</p>	<p>ML70171, ML70309, ML70310, ML70429, ML70430, ML70431 ML70470</p>

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

Additional information for applicants*Environmentally relevant activities*

The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental authority as to the scale, intensity or manner of carrying out an ERA, then the conditions prevail to the extent of the inconsistency.

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

sch4p4(6) Personal information

6 July 2015

Signature

Date

Tristan Roberts
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

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Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

Schedule A - General	
Condition number	Condition
A1	This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.
A2	In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with Schedule A —Figures 1, 2, 3, 4 and 5 (Existing and proposed mining activities) in Appendix 1.
Maintenance of Measures, Plant and Equipment	
A3	<p>The holder of this environmental authority must:</p> <ol style="list-style-type: none"> install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; maintain such measures, plant and equipment in a proper and efficient condition; operate such measures, plant and equipment in a proper and efficient manner; and ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.
Monitoring	
A4	Upon request from the administering authority, copies of monitoring records and reports should be made available and provided to the administering authority's nominated office within 10 business days or an alternative timeframe agreed between the administering authority and the holder.
A5	Any management or monitoring plans, systems or programs required to be developed and implemented by a condition of this environmental authority should be reviewed for effectiveness in minimising the likelihood of environmental harm on an annual basis, and amended promptly if required, unless a particular review date and amendment program is specified in the plan, system or program.

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A6	Except where specified otherwise in another condition of this authority, all monitoring records or reports required by this environmental authority must be kept for a period of not less than 5 years.
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Financial assurance

A7	The activity must not be carried out until the environmental authority holder has given financial assurance in accordance with the most recent edition of the administering authority's: <i>Guideline—Calculating financial assurance for mining projects</i> , to the administering authority as security for compliance with this environmental authority and any costs or expenses, or likely costs or expenses, mentioned in <i>section 298</i> of the <i>EP Act</i> .
A8	The amount of financial assurance must be reviewed by the holder of this environmental authority when a plan of operations is amended or replaced or the authority is amended.

Risk management

A9	The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the <i>Standard for Risk Management (ISO31000:2009)</i> , or the latest edition of an Australian standard for risk management, to the extent relevant to environmental management, by three (3) months from the issue of this EA.
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Notification of emergencies, incidents and exceptions

A10	The holder of this environmental authority must notify the administering authority by written notification within 24 hours, after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority.
A11	Within 10 business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following: <ul style="list-style-type: none"> a) results and interpretation of any samples taken and analysed; b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and c) proposed actions to prevent a recurrence of the emergency or incident.

Chemicals and flammable or combustible liquids

A12	All explosives, hazardous chemicals, corrosive substances, toxic substances, gases and dangerous goods must be stored and handled in accordance with the current Australian standard where such is applicable.
A13	Minimise the potential for contamination of land and waters by diverting stormwater around contaminated areas and facilities used for the storage of chemicals and flammable or combustible liquids.

Complaint Response

A14	<p>The holder of this environmental authority must record all environmental complaints received about the mining activities including:</p> <ul style="list-style-type: none"> a) name, address and contact number for of the complainant; b) time and date of complaint; c) reasons for the complaint; d) investigations undertaken; e) conclusions formed; f) actions taken to resolve the complaint; g) any abatement measures implemented; and, h) any person responsible for resolving the complaint.
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A15	<p>The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within 10 business days of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.</p>
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Third-party reporting

A16	<p>The holder of this environmental authority must:</p> <ul style="list-style-type: none"> a) within 1 year of the commencement of this authority, obtain from a suitably qualified and experienced third party a report on compliance with the conditions of this environmental authority; b) obtain further such reports at regular intervals not exceeding 3 years from the completion of the report referred to above; and c) provide each report to the administering authority within 90 days of its completion.
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A17	<p>Where a condition of this environmental authority requires compliance with a standard, policy or guideline published externally to this environmental authority and the standard is amended or changed subsequent to the issue of this environmental authority the holder of this environmental authority must:</p> <ul style="list-style-type: none"> a) comply with the amended or changed standard, policy or guideline within 2 years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation, or where the amendment or change relates specifically to regulated structures referred to in condition J48, the time specified in that condition; and b) until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.
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Schedule B - Air	
Dust Nuisance	
B1	<p>The proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the dust and particulate matter emissions generated by the mining activities do not cause exceedances of the following levels when measured at any sensitive or commercial place:</p> <ul style="list-style-type: none"> a) Dust deposition of 120 milligrams per square metre per day, averaged over 1 month, when monitored in accordance with the most recent version of <i>Australian Standard AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter – Gravimetric method</i>. b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, for no more than 5 exceedances recorded each year, when monitored in accordance with the most recent version of either: <ul style="list-style-type: none"> i) <i>Australian Standard AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet – Gravimetric method</i>, or ii) <i>Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 low volume sampler—Gravimetric method</i>. c) A concentration of particulate matter suspended in the atmosphere of 90 micrograms per cubic metre over a 1 year averaging time, when monitored in accordance with the most recent version of <i>AS/NZS3580.9.3:2003 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—Total suspended particulate matter (TSP)—High volume sampler gravimetric method</i>.
Meteorological Monitoring	
B2	<p>The environmental authority holder must establish and maintain a permanent automatic meteorological station to continuously measure and record wind speed, wind direction, temperature, relative humidity and rainfall intensity.</p> <p>Note: it is possible for environmental authority holders to utilise relevant and available weather monitoring information collected by other parties as reference data for the purposes of this condition.</p>
Odour Nuisance	
B3	<p>The release of noxious or offensive odour(s) or any other noxious or offensive airborne contaminant(s) resulting from the mining activity must not cause an environmental nuisance at any nuisance sensitive or commercial place.</p>
B4	<p>When requested by the administering authority, odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaints (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within fourteen (14) days to the administering authority following completion of monitoring.</p>

B5	<p>If the administering authority determines the odour released to constitute an environmental nuisance, then the environmental authority holder must:</p> <ul style="list-style-type: none"> a) address the complaint including the use of appropriate dispute resolution if required; and b) immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance.
Schedule C - Waste management	
C1	<p>Unless otherwise permitted by the conditions of this environmental authority or with prior approval from the administering authority and in accordance with a relevant standard operating procedure, waste must not be burnt.</p>
C2	<p>The holder of this environmental authority may burn vegetation cleared in the course of carrying out the extraction activities provided the activities does not cause environmental harm at any environmentally sensitive place and adheres to the following conditions:</p> <ul style="list-style-type: none"> a) be in accordance with a Permit to Burn issued under the <i>Fire and Rescue Service Act 1990</i>; b) ensure retained trees are not damaged by the burn; c) ensure any infrastructure is not damaged or affected by the burn; d) be 20 metres from any watercourse; e) any nearby neighbors must be notified; and, f) fire authorities must be notified.
Tailings disposal	
C3	<p>Tailings must be managed in accordance with procedures contained within the plan of operations. These procedures must include provisions for:</p> <ul style="list-style-type: none"> a) containment of tailings; b) the management of seepage and leachates both during operation and the foreseeable future; c) the control of fugitive emissions to air; d) a program of progressive sampling and characterisation to identify acid producing potential and metal concentrations of tailings; e) maintaining records of the relative locations of any other waste stored within the tailings; f) rehabilitation strategy; and g) monitoring of rehabilitation, research and/or trials to verify the requirements and methods for decommissioning and final rehabilitation of tailings, including the prevention and management of acid mine drainage, erosion minimisation and establishment of vegetation cover.

Acid sulphate soils	
C4	Treat and manage acid sulphate soils in accordance with the latest edition of the <i>Queensland Acid Sulfate Soil Technical Manual</i> .
Waste rock	
C5	<p>A waste rock and spoil disposal plan should be developed and include, where relevant, at least:</p> <ul style="list-style-type: none"> a) effective characterisation of the waste rock and spoil to predict under the proposed placement and disposal strategy the quality of runoff and seepage generated concerning potentially environmentally significant effects including salinity, acidity, alkalinity and dissolved metals, metalloids and non-metallic inorganic substances; b) a program of progressive sampling and characterisation to identify dispersive and non-dispersive spoil and the salinity, acid and alkali producing potential and metal concentrations of waste rock; c) A materials balance and disposal plan demonstrating how potentially acid forming and acid forming waste rock will be selectively placed and/or encapsulated to minimise the potential generation of acid mine drainage; d) where relevant, a sampling program to verify encapsulation and/or placement of potentially acid-forming and acid-forming waste rock; e) how often the performance of the plan will be assessed; f) the indicators or other criteria on which the performance of the plan will be assessed; and g) rehabilitation strategy.
Schedule D - Noise and Vibration	
Noise Nuisance	
D1	Subject to Conditions D2 noise from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.
D2	When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within ten (10) business days to the administering authority following completion of monitoring.
D3	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's Noise Measurement Manual.
Vibration Nuisance	
D4	Subject to Conditions D5 vibration from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.
D5	When requested by the administering authority, vibration monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within ten (10) business days to the administering authority following completion of monitoring.

Airblast Overpressure Nuisance

D6	The airblast overpressure level from blasting operations must not exceed the limits defined in <i>Table 1: Airblast Overpressure Level</i> at any sensitive or commercial place.
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Table 1 – Airblast Overpressure Level

Location	Airblast Overpressure Measured
Sensitive or commercial place	Air blast overpressure level of 115 db (Linear peak) for nine (9) out of ten (10) consecutive blasts initiated and not greater than 120 db (Linear peak) at any time.

D7	When requested by the administering authority, airblast overpressure monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within ten (10) business days to the administering authority following completion of monitoring.
D8	Airblast overpressure monitoring must include the following descriptors, characteristics and conditions: <ul style="list-style-type: none"> a) location of the blast(s) within the mining area; b) atmospheric conditions including temperature, relative humidity and wind speed and direction; and c) location, date and time of recording.
D9	If monitoring indicates exceedence of the relevant limits in Table 1: <i>Airblast Overpressure Level</i> , then the environmental authority holder must: <ul style="list-style-type: none"> a) address the complaint including the use of appropriate dispute resolution if required; and b) immediately implement airblast overpressure abatement measures so that airblast overpressure from the activity does not result in further environmental nuisance.
D10	The method of measurement and reporting of airblast overpressure levels must comply with the current edition of the Administering Authorities <i>Noise Measurement Manual</i> .

Schedule E - Groundwater

E1	The holder of this environmental authority must not release contaminants to groundwater.
E2	All determinations of groundwater quality and biological monitoring must be performed by an appropriately qualified person.
E3	The holder of the environmental authority must develop and implement a groundwater monitoring program to monitor groundwater quality and levels within twelve (12) months of the grant of this environmental authority. Groundwater monitoring locations and frequencies as per Table 2, quality triggers and limits as per Table 3 and level trigger thresholds as per Table 4 must be finalised based on background groundwater monitoring program defined in condition E4 and be submitted to the administering authority by 12 months after the issue of this environmental authority.

Table 2 – Groundwater monitoring locations and frequency

Monitoring Point	Easting (GDA 94)	Northing (GDA 94)	Surface RL (m) ¹	Monitoring Frequency
GMP1	678180	7465000	To be determined within 12 months	Levels collected from Rewan and underlying coal measure formations and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly.
GMP2	678370	7470200	To be determined within 12 months	Levels collected from Rewan and underlying coal measure formations and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly.
GMP3	681400	7470100	To be determined within 12 months	Levels collected from underlying coal measure formations and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly.
GMP4	681400	7470100	To be determined within 12 months	Samples collected from alluvium and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly. Standing water levels to be measured monthly.

Table 3 – Groundwater quality triggers and limits

Water Quality Indicator	Unit	Contaminant Triggers	Contaminant Limit
Aluminium	µg/L	To be provided as per condition E3	TBA*
Antimony	µg/L	To be provided as per condition E3	TBA
Arsenic	µg/L	To be provided as per condition E3	TBA
Calcium	µg/L	To be provided as per condition E3	TBA
Chlorine	µg/L	To be provided as per condition E3	TBA
CO ₃	µg/L	To be provided as per condition E3	TBA
Dissolved Solids (Total)	µg/L	To be provided as per condition E3	TBA
Electrical Conductivity	µS/cm	To be provided as per condition E3	TBA
HCO ₃	µg/L	To be provided as per condition E3	TBA
Iron	µg/L	To be provided as per condition E3	TBA
Magnesium	µg/L	To be provided as per condition E3	TBA
Mercury	µg/L	To be provided as per condition E3	TBA
Molybdenum	µg/L	To be provided as per condition E3	TBA
pH	pH Units	To be provided as per condition E3	TBA
Potassium	µg/L	To be provided as per condition E3	TBA
Selenium	µg/L	To be provided as per condition E3	TBA
Silver	µg/L	To be provided as per condition E3	TBA
SO ₄	µg/L	To be provided as per condition E3	TBA
Sodium	µg/L	To be provided as per condition E3	TBA

*Note: TBA is to be advised

Table 4 – Groundwater level monitoring

Monitoring Point	Level trigger threshold
GMP1	To be provided as per condition E3
GMP2	To be provided as per condition E3
GMP3	To be provided as per condition E3
GMP4	To be provided as per condition E3

E4	<p>A background groundwater monitoring program must be developed to include the following:</p> <ul style="list-style-type: none"> a) groundwater monitoring locations (bore(s)) that are located an appropriate distance from potential sources of impact from mining activities and are representative of the aquifers potentially affected by mining activities b) representative groundwater samples from each of the bores; c) containment parameters, background groundwater levels, quality triggers and contaminant limits must be determined; d) sampling at a frequency of not less than monthly must be undertaken to determine groundwater levels and quality; e) finalise the required information relating to groundwater under table 3, 4 and 5 in the appendix of this Environmental Authority; <p>Review of the results from the groundwater monitoring program must occur to determine if further assessment on the following aspects below would be warranted:</p> <ul style="list-style-type: none"> a) groundwater interactions with surface waters of Cockatoo Creek; b) impacts on potential shallow alluvial stygofauna; c) impacts on potential groundwater dependent ecosystems across the site; and d) the role of the Rewan formation and groundwater storage in associated sediments. <p>Note: If a review of the results indicate deficiencies in data recorded, or, warrants that further assessment is required, the holder of the EA must undertake a more detailed assessment and present a report to the department outlining associated risks within the time period specified by the department.</p>
E5	<p>The groundwater level and the water quality indicators specified in Table 3 (Groundwater quality triggers and limits) must be monitored for at the locations in Table 2 (groundwater monitoring locations and frequency) and Figure 4 (Groundwater monitoring locations) at the frequencies in Table 2 (groundwater monitoring locations and frequency).</p>
E6	<p>Groundwater levels when measured at the monitoring locations specified in Table 2 (Groundwater monitoring locations and frequency) and Figure 4 (Groundwater monitoring locations) must not exceed the groundwater level trigger thresholds specified in Table 4 (Groundwater level monitoring).</p>
E7	<p>If water quality indicators listed in Table 3 (Groundwater quality triggers and limits) are found to exceed any of the contaminant limits stated in Table 3, or, groundwater levels stated in Table 4 (groundwater level monitoring) are found to exceed any of the level trigger thresholds, the holder of this environmental authority must complete an investigation in accordance with the ANZECC and ARMCANZ 2000.</p>

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E8	Results of monitoring groundwater from compliance bores identified in Table 2 (Groundwater monitoring locations and frequency), must not exceed any of the contaminant limits defined in Table 3 (Groundwater quality triggers and limits).
Bore construction and maintenance and decommissioning	
E9	The construction, maintenance and management of groundwater bores (including groundwater monitoring bores) must be undertaken in a manner that prevents or minimises impacts to the environment and ensures the integrity of the bores to obtain accurate monitoring
Schedule F - Water	
Contaminant release	
F1	Contaminants that will, or have the potential to cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.
F2	Unless otherwise permitted under the conditions of this environmental authority, the release of mine affected water to waters must only occur from the release points specified in Table 5: <i>Mine affected water release point, sources and receiving waters</i> and depicted in Figure 7 attached to this environmental authority.

Table 5 – Mine affected water release points, sources and receiving waters

Release Point (RP)	Latitude (decimal degree, GDA94)	Longitude (Decimal Degree, GDA94)	Mine affected water source and location	Monitoring Point	Receiving waters description
RP 9	S 22.93290	E 148.74197	NE, NW Pits, Foxleigh and Foxleigh Plains mining areas	Flow: Roper Creek GS Quality: Roper Creek Barwon Park	Roper Creek
RP 10	S 23.01637	E 148.81824	Far South Pit, Foxleigh and Foxleigh Plains mining areas	Flow: Roper Creek GS Quality: Roper Creek Barwon Park	Roper Creek
RP 11	S 22.96786	E 148.79920	Creek Pits, Foxleigh and Foxleigh Plains mining areas	Flow: Cockatoo Creek Quality: Roper Creek Barwon Park	Cockatoo Creek

F3	The release of mine affected water to internal water management infrastructure installed and operated in accordance with a water management plan that complies with conditions F28 and F29 is permitted.
F4	The release of mine affected water to waters in accordance with condition F2 must not exceed the release limits stated in Table 6 – <i>Mine affected water release limits</i> when measured at the monitoring points specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i> and Table 8 – <i>Mine affected water release during flow events</i> for each quality characteristic.

Table 6 – Mine affected water release limits

Quality Characteristic	Release Limits	Monitoring Frequency
Electrical Conductivity ($\mu\text{S}/\text{cm}$)	Release Limits specified in Table 4 for variable flow criteria or conditions of this EA.	Daily during release (the first sample must be taken within two (2) hours of commencement of release)
pH (pH Unit)	6.5 (minimum) 9.0 (maximum)	Daily during release (the first sample must be taken within two (2) hours of commencement of release)
Turbidity (NTU)	Current limit or limit derived from suspended solids limit and demonstrated correlation between turbidity to suspended solids historical monitoring data for dam water*	Daily during release* (first sample within two hours of commencement of release) Note: Turbidity is required to assess ecosystems impacts and can provide instantaneous results.
Suspended solids (mg/L)	650* Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment*	Daily during release* (first sample within two hours of commencement of release)
Sulphate (SO_4^{2-}) (mg/L)	Release limits specified in Table 4 for variable flow criteria.	Daily during release* (first sample within two hours of commencement of release)

Note: *Limit for suspended solids can be omitted if turbidity limit is included. Limit for turbidity not required if suspended solids limit included. Both indicators should be measured in all cases.

F5	<p>The release of mine affected water to waters from the release points must be monitored at the locations specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i> for each quality characteristics and at the frequency specified in Table 6 – <i>Mine affected water release limits</i> and Table 8 – <i>Mine affected water release during flow events</i> for each quality characteristic.</p> <p>Note: The administering authority will take into consideration any extenuating circumstances prior to determining an appropriate enforcement response, in the event condition F5 is contravened due to a temporary lack of safe or practical access. The administering authority expects the environmental authority holder to take all reasonable and practicable measures to maintain safe and practical access to designated monitoring locations.</p>
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Table 7 – Release contaminant trigger investigation levels, potential contaminants

Quality characteristic	Trigger levels ($\mu\text{g}/\text{L}$)	Comment on trigger level	Monitoring frequency
Aluminium	55	For aquatic ecosystem protection, based on SMD guideline	Commencement of release and thereafter weekly during release
Arsenic	13	For aquatic ecosystem protection, based on SMD guideline	
Cadmium	0.2	For aquatic ecosystem protection, based on SMD guideline	
Chromium	1	For aquatic ecosystem protection, based on SMD guideline	
Copper	2	For aquatic ecosystem protection, based on SMD guideline	
Iron	300	For aquatic ecosystem protection, based on low reliability guideline	
Lead	4	For aquatic ecosystem protection, based on SMD guideline	
Mercury	0.2	For aquatic ecosystem protection, based on LOR for CV FIMS	

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Quality characteristic	Trigger levels (µg/L)	Comment on trigger level	Monitoring frequency
Nickel	11	For aquatic ecosystem protection, based on SMD guideline	
Zinc	8	For aquatic ecosystem protection, based on SMD guideline	
Boron	370	For aquatic ecosystem protection, based on SMD guideline	
Cobalt	90	For aquatic ecosystem protection, based on low reliability guideline	
Manganese	1900	For aquatic ecosystem protection, based on SMD guideline	
Molybdenum	34	For aquatic ecosystem protection, based on low reliability guideline	
Selenium	10	For aquatic ecosystem protection, based on LOR for ICPMS	
Silver	1	For aquatic ecosystem protection, based on LOR for ICPMS	
Uranium	1	For aquatic ecosystem protection, based on LOR for ICPMS	
Vanadium	10	For aquatic ecosystem protection, based on LOR for ICPMS	
Ammonia	900	For aquatic ecosystem protection, based on LOR for ICPMS	
Nitrate	1100	For aquatic ecosystem protection, based on ambient Qld WQ Guidelines (2006) for TN	
Sodium	TBA		
Petroleum hydrocarbons (C6-C9)	20		
Petroleum hydrocarbons (C10-C36)	100		
Fluoride (total)	2000	Protection of livestock and short term irrigation guideline	
Suspended Solids	Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment*		
Sulphate (SO42-) (mg/L)	Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment*	Drinking water environmental values from NHMRC 2006 guidelines OR ANZECC	

Notes:

1. All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Trigger levels for metal/metalloids apply if dissolved results exceed trigger.
2. The quality characteristics required to be monitored as per Table 3 can be reviewed once the results of two years monitoring data is available, or if sufficient data is available to adequately demonstrate negligible environmental risk. It may be determined that a reduced monitoring frequency is appropriate or certain quality characteristics can be removed from Table 3 by amendment.
3. SMD—slightly moderately disturbed level of protection, guideline refers ANZECC & ARMCANZ (2000).
4. LOR—typical reporting for method stated. ICPMS/CV FIMS—analytical method required to achieve LOR.

Table 8 – Mine affected water release during flow events

Receiving waters description	Release Point (RP)	Mine affected water source and location	Mine Affected Water Source Location: Latitude (decimal degree, GDA94) Longitude (decimal degree, GDA94)	Monitoring stations	Location: Latitude (decimal degree GDA94) Longitude (decimal degree GDA94)	Receiving Water Flow Criteria for discharge (m³/s)	Maximum release rate (for all combined RP flows)	Electrical Conductivity and Sulphate Release Limits
Roper Creek	RP 9 (GDA 94, Zone 55, Latitude: -22.932901; Longitude: 148.74197 Decimal Degrees)	NE Pit	Latitude: -22.91661487 Longitude: 148.7593067	Upstream:		Medium Flow >0.95 m³/s	< 0.116 m³/s	Electrical conductivity (uS/cm) < 3,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 1,499
		Old NE pit	Latitude: -22.92885202 Longitude: 148.7675156	Roper Creek U/S	Latitude: -22.87623 Longitude: 148.67186		<0.406m³/s	Electrical conductivity (uS/cm) < 1,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 600
		NW Pit	Latitude: -22.92033668 Longitude: 148.7544855	Down Stream:		High Flow >7.2 m³/s	<0.869m³/s	Electrical conductivity (uS/cm) < 3,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 1,500
		NE levee pool (not mine affected water)	Latitude: -22.91144817 Longitude: 148.7533973	Roper Creek D/S	Latitude: -23.01504 Longitude: 148.81976	Very High Flow >36m³/s	2.086 m³/s	Electrical conductivity (uS/cm) < 3,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 1,500
Roper Creek	RP 10 (GDA 94, Zone 55, Latitude: -23.016374; Longitude: 148.81824 Decimal Degrees)	Far South Highwall Dam	Latitude: -23.01144964 Longitude: 148.8170716	Upstream:		Medium Flow >0.95 m³/s	< 0.116 m³/s	Electrical conductivity (uS/cm) < 3,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 1,500
				Roper Creek U/S	Latitude: -22.87623 Longitude: 148.67186		<0.406m³/s	Electrical conductivity (uS/cm) < 1,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 600
				Down Stream:		High Flow >7.2 m³/s	<0.869m³/s	Electrical conductivity (uS/cm) < 3,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 1,500
				Roper Creek D/S	Latitude: -23.01504 Longitude: 148.81976	Very High Flow >36m³/s	2.086 m³/s	Electrical conductivity (uS/cm) < 3,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 1,500
Cockatoo Creek	RP 11 (GDA 94, Zone 55, Latitude: -22.967864 Longitude: 148.7992 Decimal Degrees)	Cockatoo Creek Sed Dam 1	Latitude: -22.9693943 Longitude: 148.8008532	Upstream:		Medium Flow >0.66 m³/s	< 0.116 m³/s	Electrical conductivity (uS/cm) < 3,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 1,500
				Cockatoo Creek U/S	Latitude: -22.87355 Longitude: 148.77429		<0.406m³/s	Electrical conductivity (uS/cm) < 1,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 600
		Cockatoo Creek Sed Dam 2	Latitude: -22.96615523 Longitude: 148.8014220	Down Stream:		High Flow >4.92 m³/s	<0.861m³/s	Electrical conductivity (uS/cm) < 3,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 1,500
				Cockatoo Creek D/S	Latitude: -23.00356512 Longitude: 148.8325809	Very High Flow >24.6m³/s	<4.305m³/s	Electrical conductivity (uS/cm) < 3,500 uS/cm Sulphate (SO₄²⁻) (mg/L) < 1,500

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F6	<p>If quality characteristics of the release exceed any of the trigger levels specified in Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i> during a release event, the environmental authority holder must compare the downstream results in the receiving waters to the trigger values specified in Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i> and:</p> <p>a) where the trigger values are not exceeded then no action is to be taken; or</p> <p>b) where the downstream results exceed the trigger values specified Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i> for any quality characteristic, compare the results of the downstream site to the data from background monitoring sites and:</p> <ol style="list-style-type: none"> 1) if the result is less than the background monitoring site data, then no action is to be taken; or 2) if the result is greater than the background monitoring site data, complete an investigation into the potential for environmental harm and provide a written report to the administering authority within 90 days of receiving the result, outlining: <ol style="list-style-type: none"> i) details of the investigations carried out; and ii) actions taken to prevent environmental harm. <p>Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with F6 b (2) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.</p>
F7	<p>If an exceedance in accordance with condition F6 b (2) is identified, the holder of the authority must notify the administering authority in writing within 24 hours of receiving the result.</p>
Mine affected water release events	
F8	<p>The holder must ensure a stream flow gauging station(s) is installed, operated and maintained to determine and record stream flows at the locations and flow recording frequency specified in Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i>.</p>
F9	<p>Notwithstanding any other condition of this environmental authority, the release of mine affected water to waters in accordance with condition F2 must only take place during periods of natural flow events in accordance with the receiving water flow criteria for discharge specified in Table 8 - <i>Mine affected water release during flow events</i> for the release point(s) specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i>.</p>
F10	<p>The release of mine affected water to waters in accordance with condition F2 must not exceed the electrical conductivity and sulphate release limits or the maximum release rate (for all combined release point flows) for each receiving water flow criteria for discharge specified in Table 8 - <i>Mine affected water release during flow events</i> when measured at the monitoring points specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i>.</p>
F11	<p>The daily quantity of mine affected water released from each release point must be measured and recorded.</p>
F12	<p>Releases to waters must be undertaken so as not to cause erosion of the bed and banks of the receiving waters, or cause a material build-up of sediment in such waters.</p>

Notification of release event	
F13	<p>The environmental authority holder must notify the administering authority as soon as practicable and no later than 24 hours after commencing to release mine affected water to the receiving environment. Notification must include the submission of written advice to the administering authority of the following information:</p> <ul style="list-style-type: none"> a) release commencement date/time; b) details regarding the compliance of the release with the conditions of Department Interest: Water of this environmental authority (that is, contaminant limits, natural flow, discharge volume) c) release point(s); d) release rate e) release salinity; and f) receiving water(s) including the natural flow rate. <p>Note: Notification to the administering authority must be addressed to the Manager and Project Manager of the local administering authority via email or facsimile.</p>
F14	<p>The environmental authority holder must notify the administering authority as soon as practicable and nominally no later than 24 hours after cessation of a release event of the cessation of a release notified under condition F13 and within 28 days provide the following information in writing:</p> <ul style="list-style-type: none"> a) release cessation date/time; b) natural flow volume in receiving water; c) volume of water released; d) details regarding the compliance of the release with the conditions of Department Interest ; Water of this environmental authority (i.e. contamination limits, natural flow, discharge volume); e) all in-situ water quality monitoring results; and f) any other matters pertinent to the water release event. <p>Note: Successive or intermittent releases occurring within 24 hours of the cessation of any individual release can be considered part of a single release event and do not require individual notification for the purpose of compliance with conditions F13 and F14, provided the relevant details of the release are included within the notification provided in accordance with conditions F13 and F14.</p>
Notification of release event exceedance	
F15	<p>If the release limits defined in Table 6 – <i>Mine affected water release limits</i> and Table 8 – <i>Mine affected water release during flow events</i> are exceeded, the holder of the environmental authority must notify the administering authority within 24 hours of receiving the results.</p>

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F16	<p>The environmental authority holder must, within 28 days of a release that exceeds the conditions of this authority, provide a report to the administering authority detailing:</p> <ul style="list-style-type: none"> a) the reason for the release; b) the location of the release; c) the total volume of the release and which (if any) part of this volume was non-compliant; d) the total duration of the release and which (if any) part of this period was non-compliant; e) all water quality monitoring results (including all laboratory analyses); f) identification of any environmental harm as a result of the non-compliance; g) all calculations; and h) any other matters pertinent to the water release event.
Monitoring of water storage quality	
F17	<p>Water storages stated in Table 9 – <i>Water Storage Monitoring</i> which are associated with the release points must be monitored for the water quality characteristic specified in Table 11 and daily during releases.</p>

Table 9 – Water Storage Monitoring

Water Storage Description	Release point Association	Latitude (GDA94)	Longitude (GDA94)	Monitoring Location	Frequency of Monitoring
NE Pit (Mine Affected)	RP 9	-22.91709	148.76001	Any accessible safe point	Quarterly
Old NE Pit (Mine Affected)	RP 9	-22.92028	148.75456	Any accessible safe point	Quarterly
NW Pit (Mine Affected)	RP 9	-22.92805	148.76770	Any accessible safe point	Quarterly
Far South Highwall Dam (Mine Affected)	RP10	-23.01136	148.81703	Any accessible safe point	Quarterly
Cockatoo Creek Sediment Dam 1	RP 11	-22.96953	148.80091	Any accessible safe point	Quarterly
Cockatoo Creek Sediment Dam 2	RP 11	-22.96643	148.80156	Any accessible safe point	Quarterly
Foxleigh Plains Pit Highwall Dam	TBC	To be constructed	To be constructed	Any accessible safe point	Quarterly
Eagles Nest Pit Highwall Dam	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Foxleigh Plains MIA Dam	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Overburden Catch Dam (Central South)	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Overburden Catch Dam (Central West)	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Overburden Catch Dam (Central East)	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly

Note: TBA is regarded as meaning that the release point will be provided within 6 Months of the water storage being constructed.

F18	In the event that water storages defined in Table 10 exceed the contaminant limits defined in Table 10 – <i>On-site Water Storage Contaminant Limits</i> , the holder of the environmental authority must implement measures, where practicable, to prevent access to waters by all livestock.
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Table 10 – On-site Water Storage Contaminant Limits

Quality Characteristic	Test Value	Contaminant Limit
pH (pH unit)	Range	Greater than 4, less than 92
EC (µS/cm)	Maximum	59701
Sulphate (mg/L)	Maximum	10001
Fluoride (mg/L)	Maximum	21
Aluminium (mg/L)	Maximum	51
Arsenic (mg/L)	Maximum	0.51
Cadmium (mg/L)	Maximum	0.011
Cobalt (mg/L)	Maximum	11
Copper (mg/L)	Maximum	11
Lead (mg/L)	Maximum	0.11
Nickel (mg/L)	Maximum	11
Zinc (mg/L)	Maximum	201

¹ Contaminant limit based on ANZECC & ARMCANZ (2000) stock water quality guidelines.

² Page 4.2-15 of ANZECC & ARMCANZ (2000) "Soil and animal health will not generally be affected by water with pH in the range of 4–9".

Note: Total measurements (unfiltered) must be taken and analysed.

Receiving environment monitoring and contaminant trigger levels	
F19	The quality of the receiving waters must be monitored at the locations specified in Table 12 – <i>Receiving water upstream background sites and downstream monitoring points</i> for each quality characteristic and at the monitoring frequency stated in Table 11 – <i>Receiving waters contaminant trigger levels</i> .

Table 11 – Receiving Waters Contaminant Trigger Levels

Quality Characteristic	Trigger Level	Monitoring Frequency
pH	6.5 – 8.0	Daily during the release
Electrical Conductivity (µS/cm)	1000	
Suspended solids (mg/L)	650	
Sulphate (SO ₄ ²⁻) (mg/L)	250 (Protection of drinking water environmental value)	
Sodium (mg/L)	TBA	

Table 12 – Receiving Water Upstream Background Sites and Down Stream Monitoring Points

Monitoring Points	Receiving Waters Location Description	Latitude (Decimal degree, GDA94)	Longitude (Decimal degree, GDA94)
Upstream Background Monitoring Points			
MP15	Roper Creek (upstream at Highway)	-22.87623	148.67186
MP16	Cockatoo Creek Upstream	-22.5149644	148.461621611
MP17	Carlo Creek Upstream	-22.92406	148.82665
MP9	Parrot Creek Downstream of Capcoal Mine and Upstream of Foxleigh Mine	- 22.92177	148.66648
Downstream Monitoring Points			
MP18	Roper Creek (DS)	-23.01504	148.81976
MP19	Roper Creek (Barwon Park)	-23.05699	148.88811
MP20	Cockatoo Creek	-23.003565	148.83258

Note: The data from background monitoring points must not be used where they are affected by releases from other mines.

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F20	<p>If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in Table 11 - <i>Receiving waters contaminant trigger levels</i> during a release event the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:</p> <ul style="list-style-type: none"> a) where the downstream result is the same or a lower value than the upstream value for the quality characteristic then no action is to be taken; or b) where the downstream results exceed the upstream results complete an investigation into the potential for environmental harm and provide a written report to the administering authority in the next annual return, outlining: <ul style="list-style-type: none"> i) details of the investigations carried out; and ii) actions taken to prevent environmental harm. <p>Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with F20 (b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.</p>
F21	All determinations of water quality and biological monitoring must be performed by an appropriately qualified person.
Receiving environment monitoring program (REMP)	
F22	<p>The environmental authority holder must develop and implement a Receiving Environment Monitoring Program (REMP) to monitor, identify and describe any adverse impacts to surface water environmental values, quality and flows due to the authorised mining activity. This must include monitoring the effects of the mine on the receiving environment periodically (under natural flow conditions) and while mine affected water is being discharged from the site.</p> <p>For the purposes of the REMP, the receiving environment is the waters of Roper Creek and connected or surrounding waterways within 10km downstream of the release. The REMP should encompass any sensitive receiving waters or environmental values downstream of the authorised mining activity that will potentially be directly affected by an authorised release of mine affected water.</p>
F23	A REMP design document that addresses the requirements of the REMP must be prepared and made available to the administering authority upon request.
F24	A report outlining the findings of the REMP, including all monitoring results and interpretations must be prepared annually and made available on request to the administering authority. This must include an assessment of background reference water quality, the condition of downstream water quality compared against water quality objectives, and the suitability of current discharge limits to protect downstream environmental values.
Water reuse	
F25	Mine affected water may be piped or trucked or transferred by some other means that does not contravene the conditions of this environmental authority and deposited into artificial water storage structures, such as farm dams or tanks, or used directly at properties owned by the environmental authority holder or a third party (with the consent of the third party).

Annual Water Monitoring Reporting	
F26	<p>The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority in the specified format:</p> <ul style="list-style-type: none"> a) the date on which the sample was taken; b) the time at which the sample was taken; c) the monitoring point at which the sample was taken; d) the measured or estimated daily quantity of mine affected water released from all release points; e) the release flow rate at the time of sampling for each release point; f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority; and g) water quality monitoring data must be provided to the administering authority in the specified electronic format upon request.
Temporary interference with waterways	
F27	<p>Destroying native vegetation, excavating, or placing fill in a watercourse, lake or spring necessary for and associated with mining operations must be undertaken in accordance with Department of Natural Resources and Mines (or its successor) <i>Guideline - Activities in a Watercourse, Lake or Spring Associated with Mining Activities</i>.</p>
Water management plan	
F28	<p>A Water Management Plan must be developed by an appropriately qualified person and implemented.</p>
Stormwater and water sediment controls	
F29	<p>An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.</p>
F30	<p>Stormwater, other than mine affected water, is permitted to be released to waters from:</p> <ul style="list-style-type: none"> a) erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by condition F29; and b) water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with condition F28, for the purpose of ensuring water does not become mine affected water.
F31	<p>The maintenance and cleaning of any vehicles, plant or equipment must not be carried out in areas from which contaminants can be released into any receiving waters.</p>
Schedule H - Land	
Rehabilitation	
H1	<p>Land disturbed by mining must be rehabilitated in accordance with Appendix 2: <i>Rehabilitation Requirements</i>.</p>
H2	<p>Rehabilitation must commence progressively in accordance with the Plan of Operations.</p>

Contaminated Land	
H3	Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.
H4	Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area the subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use under condition H1.
H5	Minimise the potential for contamination of land by hazardous contaminants.
Infrastructure	
H6	All bunding for coal stockpiles must be a minimum of 30m from the lease boundary.
Biodiversity Offsets	
H7	<p>The holder of this environmental authority must provide an offset for impacts on applicable state significant biodiversity values, in accordance with Queensland Biodiversity Offset Policy. The biodiversity offset must be consistent with the requirements for an offset as identified in the Biodiversity Offset Strategy (as per condition H8) and must be provided:</p> <ul style="list-style-type: none"> a) prior to impacting on state significant biodiversity values; or b) where a land based offset is to be provided, within 12 months of the later of either of the following <ul style="list-style-type: none"> i) the date of issue of this environmental authority; or ii) the relevant stage identified in the Biodiversity Offset Strategy submitted under condition H8; or c) where an offset payment is to be provided, within 4 months of the later of either of the following <ul style="list-style-type: none"> i. the date of issue of this environmental authority; or ii. the relevant stage identified in the Biodiversity Offset Strategy submitted under conditions H8.
H8	A Biodiversity Offset Strategy must be developed and submitted to the administering authority within either 30 days, or a lesser period agreed to by the administering authority, prior to impacting on the applicable state significant biodiversity values.

Schedule J - Regulated Structures	
J1	<p>The hazard category of any structure must be assessed by a suitably qualified and experienced person:</p> <ul style="list-style-type: none"> a) in accordance with the Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM365); and b) in any of the following situations: <ul style="list-style-type: none"> i) prior to the design and construction of the structure; or ii) prior to any change in its purpose or the nature of its stored contents; and c) in accordance with the <i>Manual for assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i>.
J2	A hazard assessment report and certification must be prepared for any structure assessed and the report may include a hazard assessment for more than one structure.
J3	The holder must, on receipt of a hazard assessment report and certification, provide to the administering authority one paper copy and one electronic copy of the hazard assessment report and certification.
J4	Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> .
J5	The holder must take reasonable and practical measures so that each dam associated with the mining activity is designed, constructed, operated and maintained in accordance with accepted engineering standards and is fit for the purpose for which it is intended.
Design and construction of a regulated structure	
J6	All regulated structures excluding structures listed in condition J37 must be designed by, and constructed under the supervision of, a suitably qualified and experienced person in accordance with the requirements of the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> .
J7	<p>Construction of a regulated structure excluding structures listed in condition J37 is prohibited unless the holder has:</p> <ul style="list-style-type: none"> a) submitted a hazard category assessment report and certification to the administering authority; b) commissioned a suitably qualified and experienced person to prepare a design plan for the structure; and c) received the certification from a suitably qualified and experienced person for the design and design plan and the associated operating procedures in compliance with the relevant condition of this authority.
J8	Certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan, in the form set out in the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> .

J9	<p>Regulated structures excluding structures listed in condition J37 must:</p> <ul style="list-style-type: none"> a) be designed and constructed in accordance with and conform to the requirements of the Manual for Assessing Hazard Categories and Hydraulic Performance of Dams; b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of: <ul style="list-style-type: none"> i) floodwaters from entering the regulated dam from any watercourse or drainage line; and ii) wall failure due to erosion by floodwaters arising from any watercourse or drainage line.
J10	<p>The design plan for a regulated structure must include, but is not limited to:</p> <ul style="list-style-type: none"> a) certification that the design plan: <ul style="list-style-type: none"> i) is in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i>, including subsidiary certifications if necessary; and ii) addresses the requirements in J10 (b) to (i) b) a design report which provides: <ul style="list-style-type: none"> i) a description of all the documents which constitute the design plan; ii) a statement of: <ul style="list-style-type: none"> 1) the applicable standards including engineering criteria, industry guidelines, relevant legislation and regulatory documents, relied upon in preparing the design plan; 2) all relevant facts and data used in preparing the design plan, including any efforts made to obtain necessary facts and data, and any limitations or assumptions to facts and data used in preparing the design plan; 3) the hazard category of the regulated structure; and 4) setting out the reasoning of the suitably qualified and experienced person who has certified the design plan, as to how the design plan provides the necessary required performance; iii) documentation of hydrological analyses and estimates required to determine all elements of the design including volumes and flow capacities; iv) detailed criteria for the design, operation, maintenance and decommissioning of the regulated structure, including any assumptions; and v) design, specification and operational rules for any related structures and systems used to prevent failure scenarios; c) Drawings showing the lines and dimensions, and locations of built structures and land forms associated with the regulated structure; d) Consideration of the interaction of the pit design with the levee or regulated dam design; e) An operational plan that includes: <ul style="list-style-type: none"> i) normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance); ii) contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure; f) A plan for the decommissioning and rehabilitation of the regulated structure at the end of its operational life; g) Details of reports on investigations and studies done in support of the design plan; h) Any other matter required by the suitably qualified and experienced person.

J11	<p>Certification by the suitably qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure, and state that:</p> <ul style="list-style-type: none"> a) the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure; and b) construction of the regulated structure is in accordance with the design plan.
J12	<p>Where a regulated dam is to be managed as part of an integrated containment system and the DSA volume is to be shared across the integrated containment system, the design and operating rules for the system as a whole must be documented in a system design plan that is certified by a suitably qualified and experienced person.</p>
J13	<p>The system design plan must contain:</p> <ul style="list-style-type: none"> a) the design plans; b) the 'as constructed' plans; c) the operational rules for each individual regulated dam that forms part of the integrated system; d) the standards of serviceability and accessibility of water transfer equipment or structures; and e) the operational rules for the system as a whole.
Operation of a regulated structure	
J14	<p>Operation of a regulated structure is prohibited unless:</p> <ul style="list-style-type: none"> a) the holder has submitted to the administering authority: <ul style="list-style-type: none"> i) one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with condition J3; ii) a set of 'as constructed' drawings and specifications; iii) certification of those 'as constructed drawings and specifications' in accordance with condition J10; iv) where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, a copy of the certified system design plan; b) the requirements of this authority relating to the construction of the regulated structure have been met; and c) relevant details for the dam have been included in Table 14, Table 15 and Table 16 of this authority.

Table 14 – Location and Basic Details of Regulated Dams

Name of Regulated Dam	Hazard Category	Map ID	Tenure	Surface Area of Dam at Spillway (ha)	Max Volume of Dam at Spillway (ML)	Max Depth of Dam at Spillway (m)	Spillway Level (mAHD)	Use of Dam	Location	
									Easting (GDA 94 Zone 55)	Northing (GDA 94 Zone 55)
Tailings Dam 1	Significant (>25 ML & EC >4,000)	1	ML70171	10	3022	24	137	Contain CHPP fine rejects & Water	681605.3 681763.8 681395.3 681110.1	7460516.2 7460237.2 7460051.9 7460498.7
Tailings Dam 2	Significant (>25ML & EC >4,000)	2	ML70171	40	6162	723	137	Contain CHPP fine rejects & Water	681160.6 681413.8 681140.0 680922.8	7461291.3 7460562.5 7460535.8 7461126.6
CHPP Process Water Dam	Significant (>25ML & EC >4,000)	3	ML70171	1.6	30	2	To be determined by 30 November 2013	CHPP Process Water	680424.6 680435.9 680350.4 680350.4	7461486.9 7461317.1 7461323.3 7461459.1
CHPP Raw Water Dam	Significant, (>25ML & EC >4,000)	4	ML70171	1	40	2	To be determined by 30 November 2013	CHPP Process Water	680340.1 680339.1 680260.9 680252.6	7461457.1 7461336.6 7461358.3 7461416.92
CHPP ROM Sediment Dam	Significant (>25ML, EC >5,970 & pH >9.0)	5	ML70171	2.4	22	3	To be determined by 30 November 2013	CHPP ROM Stockpile Runoff	680361.8 680548.1 680291.8 680056.0 680178.5 680234.1 680088.9	7461012.4 7460899.1 7460876.5 7460993.8 7461340.8 7461301.6 7461009.3
NT Sediment Dam West	Significant, (>25ML, EC >4,000 & Sulphate >1,000)	6	ML70171	4.4	77	To be determined by 30 November 2013	To be determined by 30 November 2013	CHPP Rejects runoff and Process water from revegetated spoil	680585.1 680683.9 680756.0 680732.4	7460903.3 7460978.4 7460599.6 7460580.0
Cockatoo Creek ROM Sediment Dam 1	Significant, (>25ML & EC >4,000 & pH >9.0)	7	ML70309	2	30	5	To be determined by 30 November 2013	Cockatoo ROM Stockpile Runoff	684584.9 684721.9 684623.1 684522.7	7458892.6 7458806.5 7458553.3 7458728.5
Cockatoo Creek ROM Sediment Dam 2	Significant, (>25ML, EC >4,000, pH >9.0 & Sulphate >1000)	8	ML70309	3	50	5	To be determined by 30 November 2013	Cockatoo ROM Stockpile Runoff	684634.2 684755.3 684699.6 684631.1	7459241.4 7459179.3 7458878.2 7458986.6
Truckfill Dam South	Significant, (>25ML, EC >4,000 & pH >9.0)	9	ML70171	2.7	40	To be determined by 30 November 2013	To be determined by 30 November 2013	Overland flow and haul road runoff	681918.1 682031.8 682014.6 681883.1 681870.5	7461022.5 7460935.9 7460855.5 7460871.5 7460982.9

Table 15 – Hydraulic Performance of Regulated Dams

Mine Feature Name	Spillway Capacity AEP	Design Storage Allowance AEP	Mandatory Reporting Level AEP
Tailings (NT) Void *sum of Tailings Cell 1 and Cell 2 below	9184 ML	130.08 DSA	131.29 MRL
Tailings Dam 1 (within Tailings NT Void)	3012ML	130.08 DSA	131.29 MRL
Tailings Dam 2 (within Tailings NT Void)	6162 ML	130.08 DSA	131.29 MRL
CHPP Process Water Dam	30 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
CHPP Raw Water Dam	40 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
CHPP ROM Sediment Dam	22 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
NT Sediment Dam West	77 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
Cockatoo Creek ROM Sediment Dam 1	30 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
Cockatoo Creek ROM Sediment Dam 2	50 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
Truckfill Dam South	40 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013

Note: 'To be determined' refers to the required information being provided either within the transitional period outlined in condition J37 (3 years), or, as per the Levee Action Plan provided to the department on the 18 December 2012, whichever period ends first.

Table 16 – Basic Details of Regulated Levees

Name of Regulated Levee	Design AEP	Design Flood Level (mAHD)	Minimum Levee Level (mAHD)	Schedule D Table 20 Location ID ¹	Use of Levee
Carlo Levee (new)	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
NE Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
NE Levee 2	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Roper Creek Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Cockatoo Creek Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Far South East Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
WC Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Cockatoo Creek Levee – Stage 1	1 in 1000 + 0.5m	Not constructed	Not constructed	Not constructed	Flood Protection
Cockatoo Creek Levee – Foxleigh Plains Pit	1 in 1000 + 0.5m	Not constructed	Not constructed	Not constructed	Flood Protection
Roper Creek Levee – Eagles Nest pit	1 in 1000 + 0.5m	Not constructed	Not constructed	Not constructed	Flood Protection

Note: 'To be determined' refers to the required information being provided either within the transitional period outlined in condition J37 (3 years), or, as per the Levee Action Plan provided to the department on the 18 December 2012, whichever period ends first.

J15	Each regulated structure must be maintained and operated in a manner that is consistent with the current design plan, the current operational plan, and the associated certified 'as constructed' drawings for the duration of its operational life until decommissioned and rehabilitated.
J16	<p>The holder must take reasonable and practicable control measures to prevent the causing of harm to persons, livestock or wildlife through the construction and operation of a regulated structure. Reasonable and practicable control measures may include, but are not limited to:</p> <ul style="list-style-type: none"> a) the secure use of fencing, bunding or screening; and b) escape arrangements for trapped livestock and fauna.
Mandatory reporting level	
J17	The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.
J18	The holder must, as soon as practical and within forty-eight (48) hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.
J19	The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.
Annual inspection report	
J20	Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.
J21	<p>At each annual inspection, the condition and adequacy of all components of the regulated structure must be assessed:</p> <ul style="list-style-type: none"> a) against the most recent hazard assessment report and design plan (or system design plan); b) against recommendations contained in previous annual inspections reports; c) against recognised dam safety deficiency indicators; d) for changes in circumstances potentially leading to a change in hazard category; e) for conformance with the conditions of this authority; f) for conformance with the 'as constructed' drawings; g) for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after 31 May each year but prior to 1 November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems); h) for evidence of conformance with the current operational plan.
J22	A suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and including recommended actions to ensure the integrity of the regulated structure.
J23	The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> .

J24	<p>The holder must:</p> <ul style="list-style-type: none"> a) upon receipt of the annual inspection report, consider the report and its recommendations and take action to ensure that the regulated structure will safely perform its intended function; and b) within twenty (20) business days of receipt of the annual inspection report, notify the administering authority in writing, of the recommendations of the inspection report and the actions being taken to ensure the integrity of each regulated structure.
J25	A copy of the annual inspection report must be provided to the administering authority upon request and within ten (10) business days.
Design storage allowance	
J26	On 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems).
J27	The holder must, as soon as possible and within forty-eight (48) hours of becoming aware that the regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.
J28	The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.
Performance review	
J29	The holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken prior to 1 July of each year.
J30	<p>The holder must take action to modify its water management or linked containment system so as to ensure that the regulated dam or linked containment system will perform in accordance with the requirements of this authority, for the subsequent November to May period.</p> <p><i>Note: Action may include seeking the necessary approvals for physical modification of a regulated dam.</i></p>
Transfer arrangements	
J31	The holder must provide a copy of any reports, documentation and certifications prepared under this authority, including but not limited to any Register of Regulated Structures, hazard assessment, design plan and other supporting documentation, to a new holder and the administering authority on transfer of this authority.

Decommissioning and Rehabilitation	
J32	<p>Prior to the cessation of the environmentally relevant activity, each regulated structure must be decommissioned such that:</p> <ul style="list-style-type: none"> a) ongoing environmental harm is minimised by the regulated structure: <ul style="list-style-type: none"> i) becoming a safe site for humans and animals at the completion of rehabilitation; or ii) becoming a stable landform, that no longer contains flowable substances and minimises erosion impacts; or iii) not allowing for acid mine drainage; or iv) being approved or authorised under relevant legislation for a beneficial use; or v) being a void authorised by the administering authority to remain after decommissioning; and b) the regulated structure is compliant with all other relevant rehabilitation requirements of this authority.
Regulated structure location and performance	
J33	Each regulated structure named in <i>Table 14 – Location and Details of Regulated Dams</i> and <i>Table 16: Details of Regulated Levees</i> must be wholly located within the control points for that structure.
J34	Each regulated dam named in <i>Table 14 – Location and Details of Regulated Dams</i> must be consistent with the details noted in <i>Table 18</i> for that structure.
J35	Each regulated dam named in <i>Table 14 – Location and Details of Regulated Dams</i> , must meet the hydraulic performance criteria noted in <i>Table 15 - Hydraulic Performance of Regulated Dams</i> for that dam.
J36	Each regulated levee named in <i>Table 16 – Details of Regulated Levees</i> must be consistent with the details noted in the columns in <i>Table 16</i> relating to each levee.
Transitional Arrangements	
J37	<p>Each regulated structure specified below must, within a period of three years (the transitional period) from 1 November 2012, meet the performance requirements of conditions J34 and J35 or if a levee, condition J36:</p> <ul style="list-style-type: none"> a) Carlo Levee (new); b) NE Levee; c) NE Levee 2; d) Roper Creek Levee; e) Cockatoo Creek Levee; f) Far South East Levee; and g) WC Levee.
J38	During the transitional period, each regulated structure specified in condition J37 must comply with J34 and J35 or if a levee, condition J36 of this authority or the conditions set out in Schedule K of this authority.

J39	<p>During the transitional period, for each declared regulated structure listed in condition J37, either:</p> <p>a) Certification must be provided, by a suitably qualified and experienced person, in the form set out in the Manual for Assessing Hazard Categories and Hydraulic Performance of Dams:</p> <ul style="list-style-type: none"> i) that the declared regulated structure is suitable for use as a regulated structure and can be transitioned to meet with either conditions J34 and J35 or if a levee, condition J36 of this authority; and ii) of any design plans for the modification of the declared regulated structure where modification is required to meet with either conditions J34 and J35 or if a levee, condition J36 of this authority; or <p>b) The declared regulated structure must be decommissioned.</p>
Schedule K - Regulated Structures (Dams and Levees) – Transitional Conditions	
K1	The hazard category of each dam must be determined by a suitably qualified and experienced person at least once in each two year period.
K2	Dams having a hazard category determined to be significant or high must be specifically authorised by an environmental authority.
K3	<p>Where the hazard category determined to be significant or high (i.e a regulated dam), the holder of the environmental authority must act immediately to ensure:</p> <ul style="list-style-type: none"> a) the administering authority is advised of the current location and details of that dam; and b) the dam meets the hydraulic performance required of the assessed hazard category within eighteen months of that assessment or a Transitional Environmental Program is put in place.
K4	The following regulated dams are to be located within the control points defined in <i>Table 17: Location of Regulated Dams (Transitional)</i> .

Table 17: Location of Regulated Dams (Transitional)

Name of Regulated Dam	Easting (GDA94)	Northing (GDA94)
Tailings Dam 1	681,240	7,460,410
	681,420	7,460,510
	681,730	7,460,200
	671,550	7,460,050
Tailings Dam 2	681,000	7,461,160
	681,170	7,461,280
	681,410	7,460,570
	681,220	7,460,470

K5	The following regulated dams are to be used in accordance with <i>Table 18: Specification of Regulated Dams (Transitional)</i> .
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Table 18: Specification of Regulated Dams (Transitional)

Name of Regulated Dam	Hazard Category	Maximum surface area of dam (ha)	Maximum volume of dam (m ³)	Maximum depth of dam (m)	Use of dam
Tailings Dam 1	To be determined	12.8	2,200,000	30	Permanent containment of tailings
Tailings Dam 2	To be determined	17.3	3,700,000	30	Permanent containment of tailings

K6	The following regulated dams are to be operated in accordance with <i>Table 19: Hydraulic Performance of Regulated Dams (Transitional)</i> .
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Table 19: Hydraulic Performance of Regulated Dams (Transitional)

Name of Regulated Dam	Spillway capacity	Design Storage Allowance	Mandatory Report Level
Tailings Dam 1	To be determined	To be determined	To be determined
Tailings Dam 2	To be determined	To be determined	To be determined

K7	Construction of a regulated dam must not be commenced unless: <ul style="list-style-type: none"> a) the holder of this environmental authority has submitted to the administering authority two copies of a design plan, together with the certification of a suitably qualified and experienced person that the design of the regulated dam will deliver the performance stated in the submitted design plan and that dam is compliant in all respects with this environmental authority; and b) at least 20 business days has passed since the receipt of those documents, or the administering authority notifies the holder of this environmental authority that a design plan and certification has been submitted for that dam.
K8	When construction or modification of any regulated dam is complete, or within 12 months of a dam becoming a regulated dam by virtue of a hazard assessment, the holder of this environmental authority must submit to the administering authority two copies of a set of 'as constructed' drawings, together with the certification by a suitably qualified and experienced person that the dam 'as constructed' is fit for purpose, compliant in all respects with this environmental authority, and in accordance with accepted engineering standards.
K9	The holder of this environmental authority must ensure that there is always a current operational plan for each regulated dam, which may form part of other plans required by legislation.
K10	The holder of this environmental authority must notify the administering authority as soon as possible, but within 24 hours, of the level in any regulated dam reaching the mandatory reporting level (MRL); and must immediately act to prevent or minimise any actual or potential environmental harm.
K11	Each regulated dam must be inspected annually by a suitably qualified and experienced person.
K12	At each annual inspection, the condition and adequacy of each regulated dam must be assessed for dam safety and against the necessary structural, geotechnical and hydraulic performance criteria.

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K13	At each annual inspection, if mandatory reporting level is required, it must be determined and marked on each regulated dam.
K14	A final assessment of adequacy of available storage in each regulated dam must be based on a dam level observed within the month of October and result in an estimate of the level in that dam as at 1 November.
K15	For each annual inspection, two copies of a report of the condition and adequacy of each regulated dam, certified by the suitably qualified and experienced person and including any recommended actions to be taken to ensure the integrity of each regulated dam; must be provided to the administering authority by 1 December each year.
K16	The permit holder must, within one week of receipt of the annual inspection report, consider the report and its recommendations; and as soon as possible, but within one month of receipt of the annual inspection report, formulate and implement actions to ensure that each regulated dam safely performs its intended functions.
K17	On cessation of operation of any dam, the dam must be maintained so as to avoid environmental harm until that dam is decommissioned.
K18	Prior to the cessation of the environmentally relevant activity, each dam must be decommissioned such that it is either: <ul style="list-style-type: none"> a) becomes a stable landform, that no longer contains flowable substances; or b) is approved or authorised under relevant legislation for a beneficial use; or c) is a void authorised by the administering authority to remain after decommissioning; and d) is compliant with the rehabilitation requirements for this environmental authority.
K19	The holder of the environmental authority must ensure any activities associated with this environmental authority do not compromise the integrity of any levee, either within the operational land or adjacent to the operation land.
K20	The holder of this environmental authority must ensure that each new levee is designed, constructed, operated and maintained in accordance with accepted engineering standards and is fit for the purpose for which it is intended (see Figure 11 Levee locations).
K21	The hazard category of each levee must be assessed by a suitably qualified and experienced person prior to construction and at least once per year, based on documented evidence sufficient to define or confirm the current nature and extent of environmental consequences for potential failure of that levee.
K22	The Foxleigh mine flood protection must have a constructed protection height that is equal to or exceeds the predicted 1 in 1000 year AEP event flood level + 0.5m.
K23	Geomechanical cracking associated with the excavation of the low wall or any other mining activity is not permitted within a 30 metre buffer zone on the mine site side toe of the levee at Foxleigh mine.
K24	The holder of the environmental authority must ensure that the low wall at the mine side margin of the 30m buffer zone of the levee remains stable with a factor of safety of 1.5 or above based on an accepted stability analysis method.

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K25	<p>The holder of this environmental authority must not commence construction of any levee unless:</p> <ul style="list-style-type: none"> a) the holder has submitted to the administering authority two copies of a design plan, together with the certification of a suitably qualified and experienced person that the design of the levee is fit for the purpose for which the levee is intended, as stated in the hazard assessment accompanying the plan, and compliant in all respects with this environmental authority; and b) At least twenty (20) business days has passed since the receipt of those documents, or the administering authority has advised the holder that those documents are compliant with this condition.
K26	<p>When construction or modification of any levee is complete the holder of this environmental authority must submit to the administering authority two copies of a set of 'as constructed' drawings, together with the certification by a suitably qualified and experienced person that the levee 'as constructed' is fit for the purpose stated in the hazard assessment and the design plan, if the latter exists, and is compliant in all respects to this environmental authority.</p>
K27	<p>The holder of this environmental authority must ensure that there is always a current operational plan for each levee, which may form part of the plan of operations as required by legislation.</p>
K28	<p>The operation plan must cover all matters relevant to the operation and maintenance of the levee such as to maintain compliance in all respects with this environmental authority. For Foxleigh mine the operational plan must include:</p> <ul style="list-style-type: none"> a) A documented procedure for surveillance of the levee and its adjacent areas to detect and report to the administering authority in advance of and during mining operations any ground movement that will or may compromise the integrity of the levee; and b) Drawings describing the lines and dimensions of the phases of mining activities in the vicinity of the levee.
K29	<p>Levees shall be inspected and assessed by a suitably qualified and experienced person as soon as possible, if at any time unusual conditions are observed by the holder of this environmental authority or their agents.</p>
K30	<p>Remedial works identified as being required during inspections and assessments conducted under condition K29, must be notified in writing to the administering authority within ten (10) business days of the completion of the inspection, and commenced within thirty (30) business days unless otherwise agreed in writing by the administering authority.</p>
K31	<p>The holder of this environmental authority must arrange for each levee to be inspected annually by a suitably qualified and experienced person who must certify that the documented procedure for surveillance of the levee has been applied in accordance with any relevant procedures, that there has been no erosion, cracking or vertical or horizontal deformation that has impacted on the integrity of the levee, and that the levee has been maintained in accordance with the certified design plan.</p>
K32	<p>At each annual inspection the condition of each levee must be assessed in accordance with the certified design and current operational plan. Any recommended actions must be conveyed to the holder of this environmental authority in an annual inspection report.</p>
K33	<p>The holder of this environmental authority must take immediate action in response to the recommendations arising from an annual inspection of the condition and adequacy of the levee.</p>
K34	<p>For each annual inspection, two copies of a report certified by a suitably qualified and experienced person, including any recommended actions to be taken, must be provided to the administering authority by 1 December.</p>

K35	The following levees are to be located along the control points defined in <i>Table 20: Location of Levees (Transitional)</i> .
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Table 20: Location of Levees (Transitional)

Name of Levee	Easting (GDA94)	Northing (GDA94)
Carlo Levee (new)	685,270	7,458,840
	686,650	7,456,610
	687,070	7,456,900
	686,120	7,459,540
NE Levee	679,580	7,464,000
	679,460	7,464,110
	680,260	7,465,030
	680,610	7,464,900
	681,350	7,464,830
	681,890	7,461,920
NE Levee 2	680,960	7,464,190
	681,600	7,463,020
	681,890	7,461,920
Roper Creek Levee	685,140	7,454,760
	685,000	7,454,610
	685,120	7,454,420
	685,200	7,454,230
	686,000	7,453,320
	686,160	7,453,480
Cockatoo Creek Levee	684,370	7,460,020
	684,300	7,459,710
	684,340	7,459,520
	684,430	7,459,390
Far South East Levee	685,250	7,455,330
	685,660	7,455,160
	685,750	7,455,050
	686,260	7,454,160
	686,340	7,453,940
	686,360	7,453,580
	686,170	7,453,480
Carlo Creek Levee (old)	685,270	7,458,830
	685,680	7,458,150
	685,970	7,458,300
	686,030	7,458,720
	686,100	7,458,960
	686,150	7,459,360
	686,110	7,459,360
WC Levee	683,620	7,457,300
	683,680	7,457,300
	683,940	7,457,170
	684,120	7,456,950
	684,530	7,456,520

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K36	<p>Prior to the cessation of the environmentally relevant activity, each levee must be decommissioned such that it:</p> <ul style="list-style-type: none">a) becomes part of a stable landform, andb) is compliant with the rehabilitation requirements for this environmental authority
Schedule L - Aboriginal Cultural Heritage	
L1	<p>No excavation, construction or other activity that may cause harm to Aboriginal cultural heritage may take place within the project site (comprising ML70171, ML70309, ML70310, ML70429, ML70430, ML70431 and ML70470) without the development and approval of a cultural heritage management plan for the project site under the <i>Aboriginal Cultural Heritage Act 2003</i>.</p>

Definitions

Words and phrases used throughout this environmental authority are defined below. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority, the definitions in the *Environmental Protection Act 1994*, its regulations, subordinate legislation and environmental protection policies must be used.

‘acid rock drainage’ means any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture.

‘Administering authority’ means the Department of Environment and Heritage Protection or its successor.

‘airblast overpressure’ means energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dBL).

‘Annual exceedance probability’ or ‘AEP’ means the probability that at least one event in excess of a particular magnitude will occur in any given year.

‘appropriately qualified person’ means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

‘assessed’ and ‘assessment’ by a suitably qualified and experienced person in relation to a hazard assessment of a dam, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment:

- a) exactly what has been assessed and the precise nature of that determination;
- b) the relevant legislative, regulatory and technical criteria on which the assessment has been based;
- c) the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and
- d) the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.

‘associated works’ means in relation to a dam,

- a) operations of any kind and all things constructed, erected or installed for that dam; and
- b) any land used for those operations.

‘authority’ means an environmental authority.

‘background’, with reference to the water schedule means the average of samples taken prior to the commencement of mining from the same waterway that the current sample has been taken.

‘blasting’ means the use of explosive materials to fracture:

- a) rock, coal and other minerals for later recovery; or
- b) structural components or other items to facilitate removal from a site or for reuse.

‘certification’ means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by this manual, including design plans, ‘as constructed’ drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy Certification by RPEQs (ID: 1.4 (2A)).

‘certifying’, ‘certify’ or ‘certified’ have a corresponding meaning as ‘certification’.

'chemical' means:

- a) an agricultural chemical product or veterinary chemical product within the meaning of the *Agricultural and Veterinary Chemicals Code Act 1994* (Commonwealth); or
- b) a dangerous good under the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Australian Transport Council; or
- c) a lead hazardous substance within the meaning of the Workplace Health and Safety Regulation 1997;
- d) a drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Ministers' Advisory Council and published by the Commonwealth; or
- e) any substance used as, or intended for use as:
 - i. a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product; or
 - ii. a surface active agent, including, for example, soap or related detergent; or
 - iii. a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide; or
 - iv. a fertiliser for agricultural, horticultural or garden use; or
 - v. a substance used for, or intended for use for mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or
 - vi. manufacture of plastic or synthetic rubber.

'commercial place' means a workplace used as an office or for business or commercial purposes, which is not part of the mining activity and does not include employees' accommodation or public roads.

'construction' or **'constructed'** in relation to a regulated structure includes building a new regulated structure and lifting or otherwise modifying an existing regulated structure, but does not include investigations and testing necessary for the purpose of preparing a design plan.

'dam' means a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and **associated works**. A dam does not mean a fabricated or manufactured tank or container, designed and constructed to an Australian Standard that deals with strength and structural integrity of that tank or container.

'dam crest volume' means the volume of material (liquids and/or solids) that could be within the walls of a dam at any time when the upper level of that material is at the crest level of that dam. That is, the instantaneous maximum volume within the walls, without regard to flows entering or leaving (eg via spillway).

'design storage allowance' or 'DSA' means an available volume, estimated in accordance with the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)* published by the administering authority, must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an annual exceedance probability (AEP) specified in that manual.

'designer' for the purposes of a regulated dam, means the certifier of the design plan for the regulated dam.

'disturbance' of land includes:

- a) compacting, removing, covering, exposing or stockpiling of earth;
- b) removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion;
- c) carrying out mining within a watercourse, waterway, wetland or lake;
- d) the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls;
- e) temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be removed after the mining activity has ceased; or
- f) releasing of contaminants into the soil, or underlying geological strata.

However, the following areas are not included when calculating areas of 'disturbance':

- a) areas off lease (e.g. roads or tracks which provide access to the mining lease);
- b) areas previously disturbed which have achieved the rehabilitation outcomes;

- c) by agreement with the administering authority, areas previously disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);
- d) areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be left by agreement with the landowner.
- e) disturbance that pre-existed the grant of the tenure.

‘EC’ means electrical conductivity.

‘effluent’ means treated waste water released from sewage treatment plants.

‘emergency action plan’ means documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam owners to annually update contact details that are part of the plan, and to comprehensively review the plan at least every five years.

‘Environmental authority’ means environmental authority granted in relation to an environmentally relevant activity under the *Environmental Protection Act 1994*.

‘Environmental authority holder’ means the holder of this environmental authority.

‘Flowable substance’ means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.

‘hazard’ means in relation to a dam as defined, means the potential for environmental harm resulting from the collapse or failure of the dam to perform its primary purpose of containing, diverting or controlling flowable substances.

‘hazard category’ means a category, either low significant or high, into which a dam is assessed as a result of the application of tables and other criteria in ‘Manual for Assessing Hazard Categories and Hydraulic Performance of Dams’.

‘Holder’ means any person who is the holder of, or is acting under, that environmental authority.

‘hydraulic performance’ means the capacity of a regulated dam to contain or safely pass flowable substances based on a probability (AEP) of performance failure specified for the relevant hazard category in the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)*.

‘infrastructure’ means water storage dams, levees,, roads and tracks, buildings and other structures built for the purpose of the mining activity.

‘land’ in the ‘land schedule’ of this document means land excluding waters and the atmosphere, that is, the term has a different meaning from the term as defined in the *Environmental Protection Act 1994*. For the purposes of the *Acts Interpretation Act 1954*, it is expressly noted that the term ‘land’ in this environmental authority relates to physical land and not to interests in land.

‘land use’ –means the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

'leachate' means a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of at the operational land which contains soluble, suspended or miscible contaminants likely to have been derived from the said material.

'levee' means an embankment that only provides for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of **water** or **flowable substances** at any other times.

'licensed place' means the mining activities carried out at the mining tenements detailed in Table # (page #) of this environmental authority.

'Low hazard dam' means any dam that is not a high or significant hazard category as assessed using the Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635).

'm' means metres.

'mandatory reporting level' or 'MRL' means a warning and reporting level determined in accordance with the criteria in the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)* published by the administering authority.

'mine affected water':

a) means the following types of water:

- i) pit water, tailings dam water, processing plant water;
- ii) water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2008 if it had not formed part of the mining activity;
- iii) rainfall runoff which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to manage such runoff, provided that this water has not been mixed with pit water, tailings dam water, processing plant water or workshop water;
- iv) groundwater which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated;
- v) groundwater from the mine's dewatering activities;
- vi) a mix of mine affected water (under any of paragraphs i)-v) and other water.

b) does not include surface water runoff which, to the extent that it has been in contact with areas disturbed by mining activities that have not yet been completely rehabilitated, has only been in contact with:

- i) land that has been rehabilitated to a stable landform and either capped or revegetated in accordance with the acceptance criteria set out in the environmental authority but only still awaiting maintenance and monitoring of the rehabilitation over a specified period of time to demonstrate rehabilitation success; or
- ii) land that has partially been rehabilitated and monitoring demonstrates the relevant part of the landform with which the water has been in contact does not cause environmental harm to waters or groundwater, for example:
 - 1) areas that have been capped and have monitoring data demonstrating hazardous material adequately contained with the site;
 - 2) evidence provided through monitoring that the relevant surface water would have met the water quality parameters for mine affected water release limits in this environmental authority, if those parameters had been applicable to the surface water runoff; or
- iii) both.

‘measures’ includes any measures to prevent or minimise environmental impacts of the mining activity such as bunds, silt fences, diversion drains, capping, and containment systems.

‘modification or modifying’ (see definition of ‘construction’)

‘NATA’ means National Association of Testing Authorities, Australia.

‘natural flow’ means the flow of water through waters caused by nature.

‘non polluting’ means having no adverse impacts upon the receiving environment.

‘Operational plan’ for a dam means a document that amongst other things sets out procedures and criteria to be used for operating a dam during a particular time period. The operational plan as defined herein may form part of a plan of operations or plan otherwise required in legislation.

‘peak particle velocity (ppv)’ means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mm/s).

‘Probable Maximum Flood (PMF)’ means the flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in a particular drainage area.

‘protected area’ means – a protected area under the *Nature Conservation Act 1992*; or

- a) a marine park under the *Marine Parks Act 1992*; or
- b) a World Heritage Area.

‘receiving environment’ in relation to an activity that causes or may cause environmental harm, means the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to):

- a) a watercourse;
- b) groundwater; and
- c) an area of land that is not specified in Schedule 1 – Figure 1 of this environmental authority.

‘receiving waters’ means the waters into which this environmental authority authorises releases of mine affected water.

‘regulated dam’ means any dam in the significant or high hazard category as assessed using the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)* published by the administering authority.

‘rehabilitation’ the process of reshaping and revegetating land to restore it to a stable landform

‘release event’ means a surface water discharge from mine affected water storages or contaminated areas on the licensed place.

‘RL’ means reduced level, relative to mean sea level as distinct from depths to water.

‘representative’ means a sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the mining activities.

‘saline drainage’ The movement of waters, contaminated with salts, as a result of the mining activity.

‘sensitive place’ means:

- a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- b) a motel, hotel or hostel; or
- c) an educational institution; or

- d) a medical centre or hospital; or
- e) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or
- f) a public park or gardens.

Note: The definition of 'sensitive place' and 'commercial place' is based on Schedule 1 of EPP Noise. That is, a sensitive place is inside or outside on a dwelling, library & educational institution, childcare or kindergarten, school or playground, hospital, surgery or other medical institution, commercial & retail activity, protected area or an area identified under a conservation plan under *Nature Conservation Act 1992* as a critical habitat or an area of major interest, marine park under *Marine Parks Act 2004*, park or garden that is outside of the mining lease and open to the public for the use other than for sport or organised entertainment. A commercial place is inside or outside a commercial or retail activity.

A mining camp (i.e., accommodation and ancillary facilities for mine employees or contractors or both, associated with the mine the subject of the environmental authority) is not a sensitive place for that mine or mining project, whether or not the mining camp is located within a mining tenement that is part of the mining project the subject of the environmental authority. For example, the mining camp might be located on neighbouring land owned or leased by the same company as one of the holders of the environmental authority for the mining project, or a related company. Accommodation for mine employees or contractors is a sensitive place if the land is held by a mining company or related company, and if occupation is restricted to the employees, contractors and their families for the particular mine or mines which are held by the same company or a related company.

For example, a township (occupied by the mine employees, contractors and their families for multiple mines that are held by different companies) would be a sensitive place, even if part or all of the township is constructed on land owned by one or more of the companies.

'spillway' means a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the dam, normally under flood conditions or in anticipation of flood conditions.

'suitably qualified and experienced person' in relation to regulated structures means a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, and has demonstrated competency and relevant experience:

- a) for regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design.
- b) for regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments.

Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in geomechanics, hydraulic design or engineering hydrology.

'structure' in relation to regulated structures means dam or levee.

'system design plan' means a plan that manages an integrated containment system that shares the required DSA volume across the integrated containment system.

'the Act' means the *Environmental Protection Act 1994*.

'µS/cm' means micro siemens per centimetre.

'Void' means any constructed, open excavation in the ground.

'watercourse' has the same meaning given in the *Water Act 2000*.

'water quality' means the chemical, physical and biological condition of water.

'waters' includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), storm water channel, storm water drain, and groundwater and any part thereof.

‘Water year’ means the 12-month period from 1 July to 30 June.

‘Wet season’ means the time of year, covering one or more months, when most of the average annual rainfall in a region occurs. For the purposes of DSA determination this time of year is deemed to extend from 1 November in one year to 31 May in the following year inclusive.

END OF DEFINITIONS

Released under the RTI Act 2009 - EHP

Appendix 1

Figure 1 – Approved and proposed mining activities for ML70171, ML70309 and ML70310

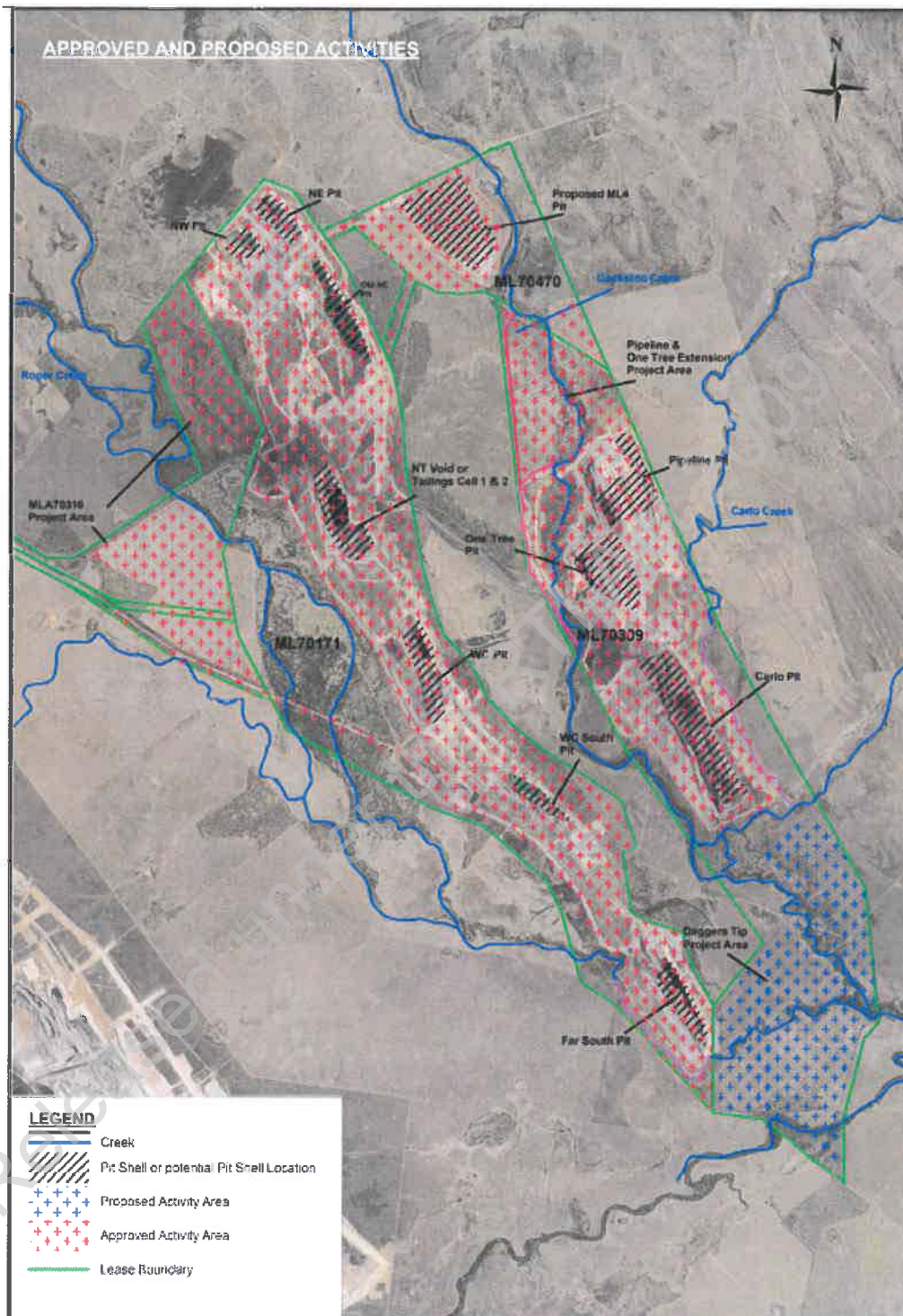


Figure 2 – Proposed mining activities ML70470

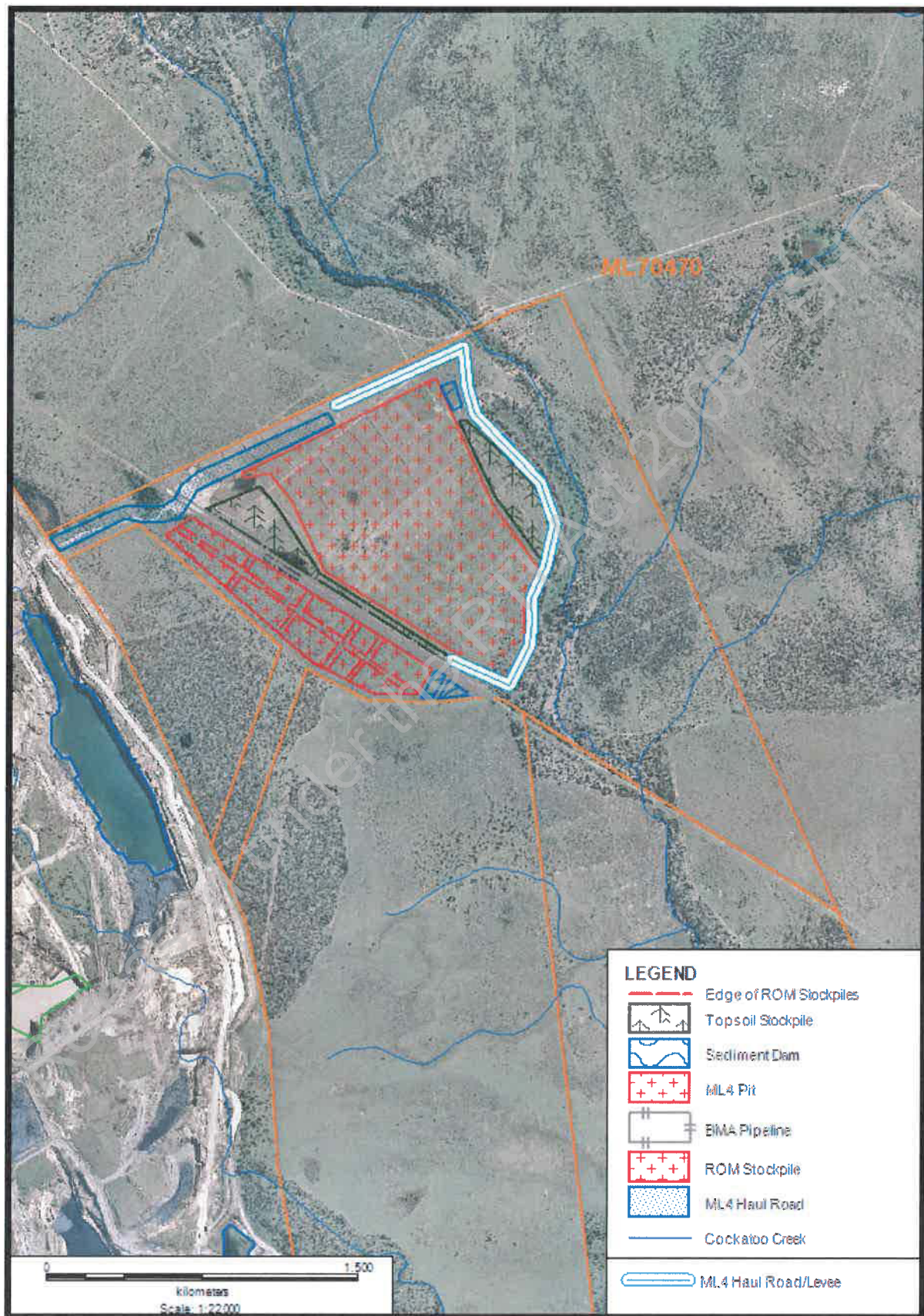


Figure 3 – Existing and proposed mining activities ML70310

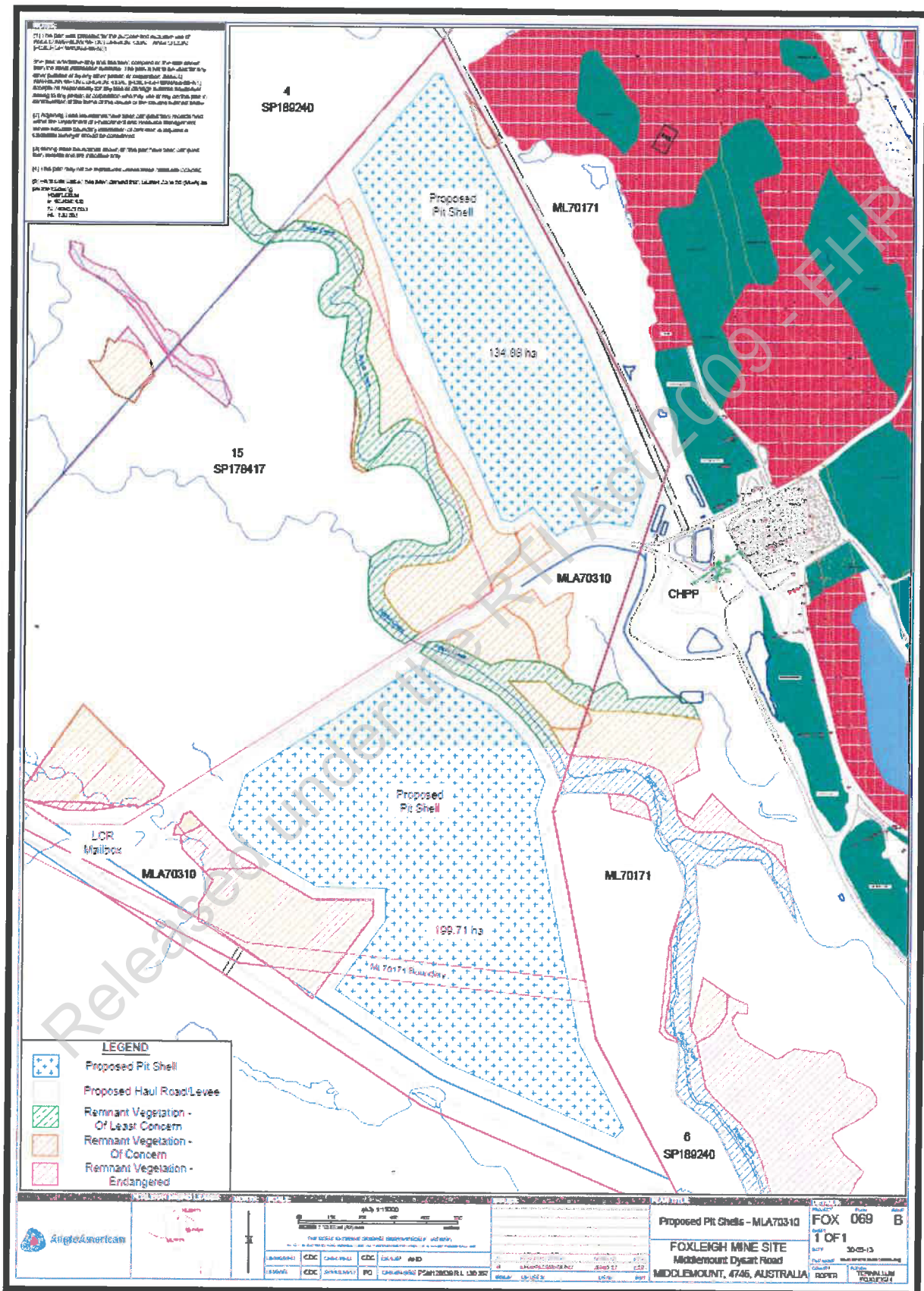


Figure 4 – Proposed mining activities and project infrastructure layout – mine area ML70429, ML70430, ML70431 (Foxleigh Plains)

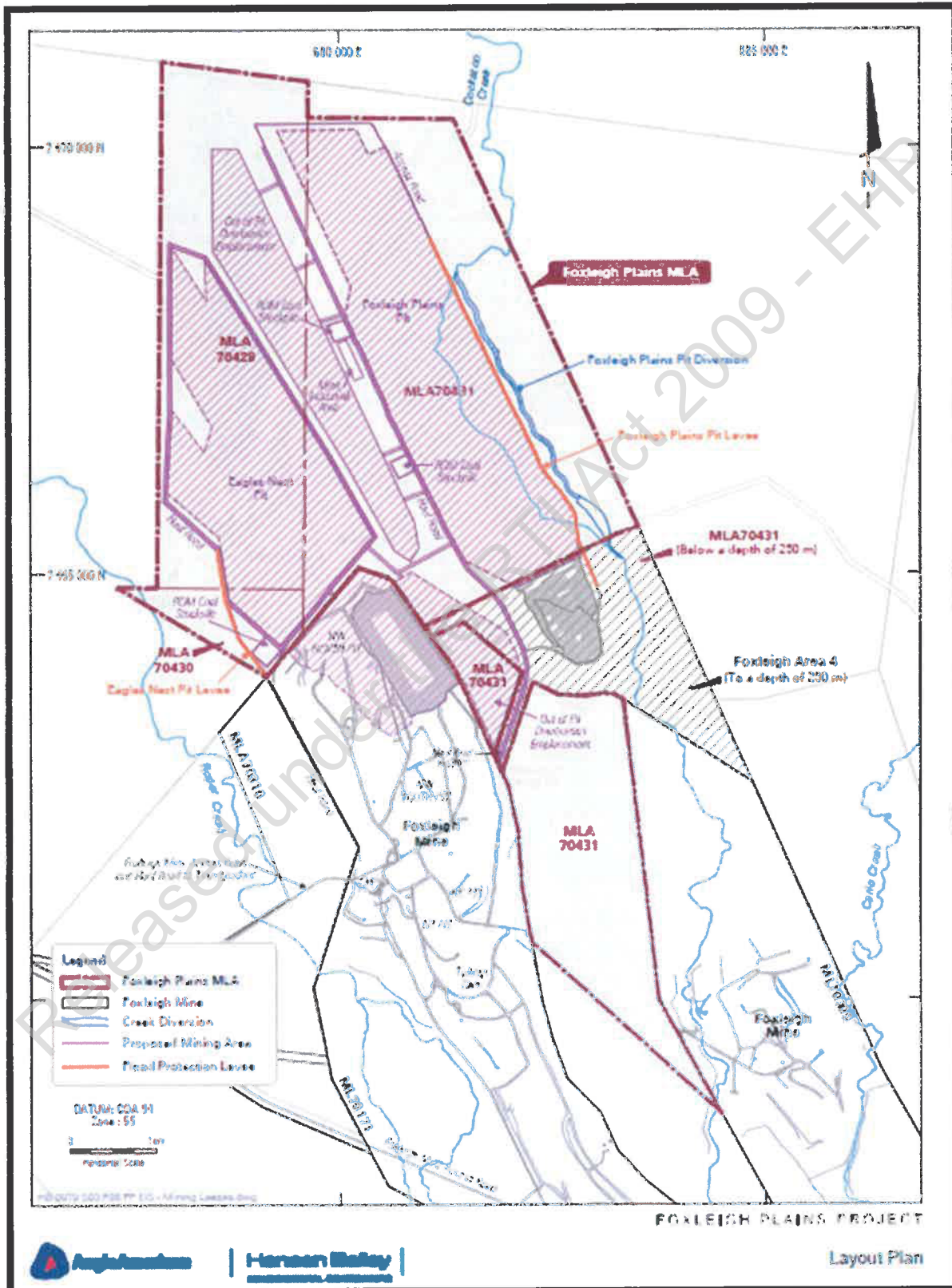


Figure 5 – Proposed Project infrastructure layout – support infrastructure, Mine industrial area adjacent Foxleigh Plains Pit area

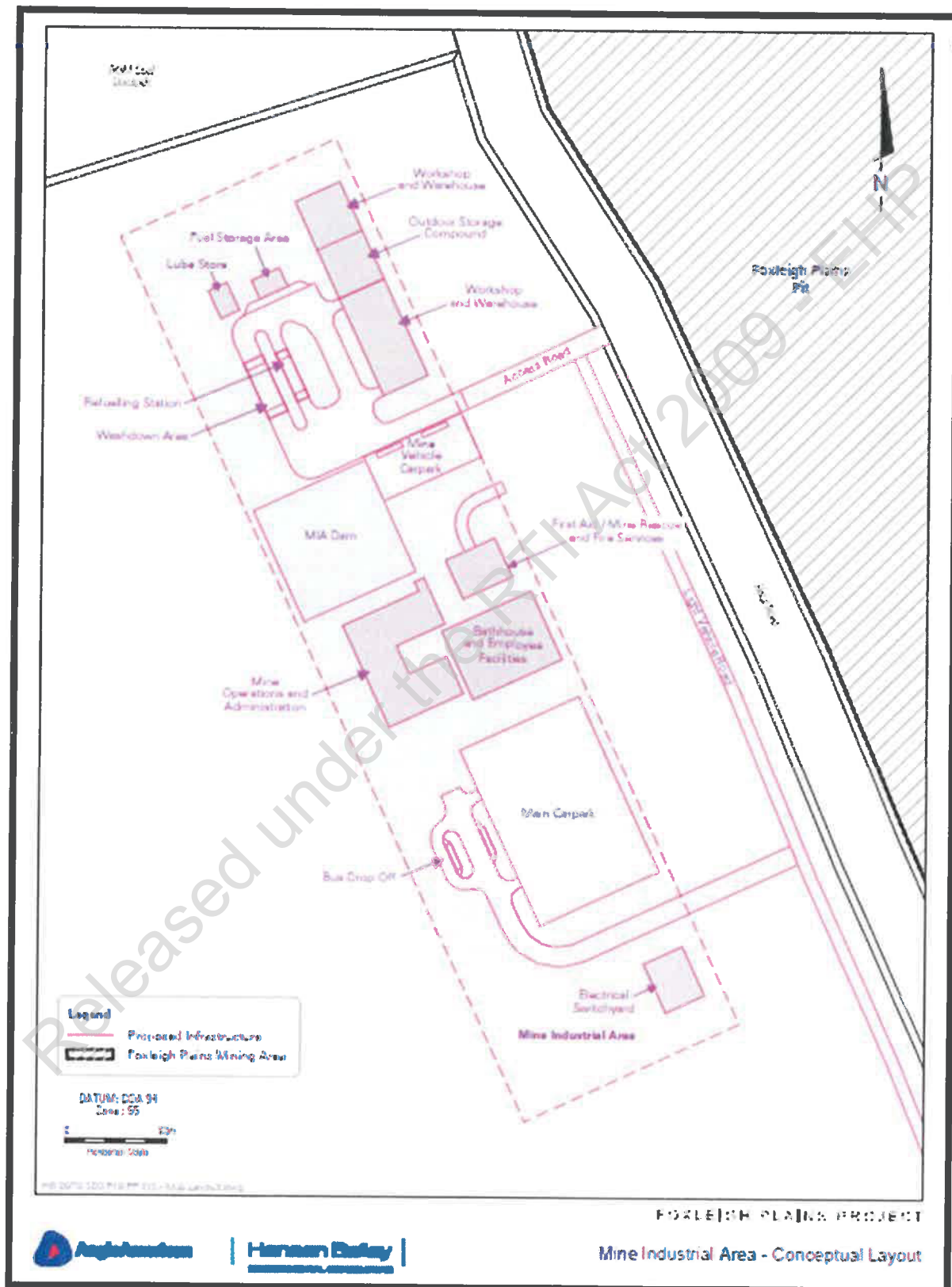


Figure 6 – Groundwater Monitoring Locations (Bores)



Figure 7 – Release Point and Monitoring Point Locations

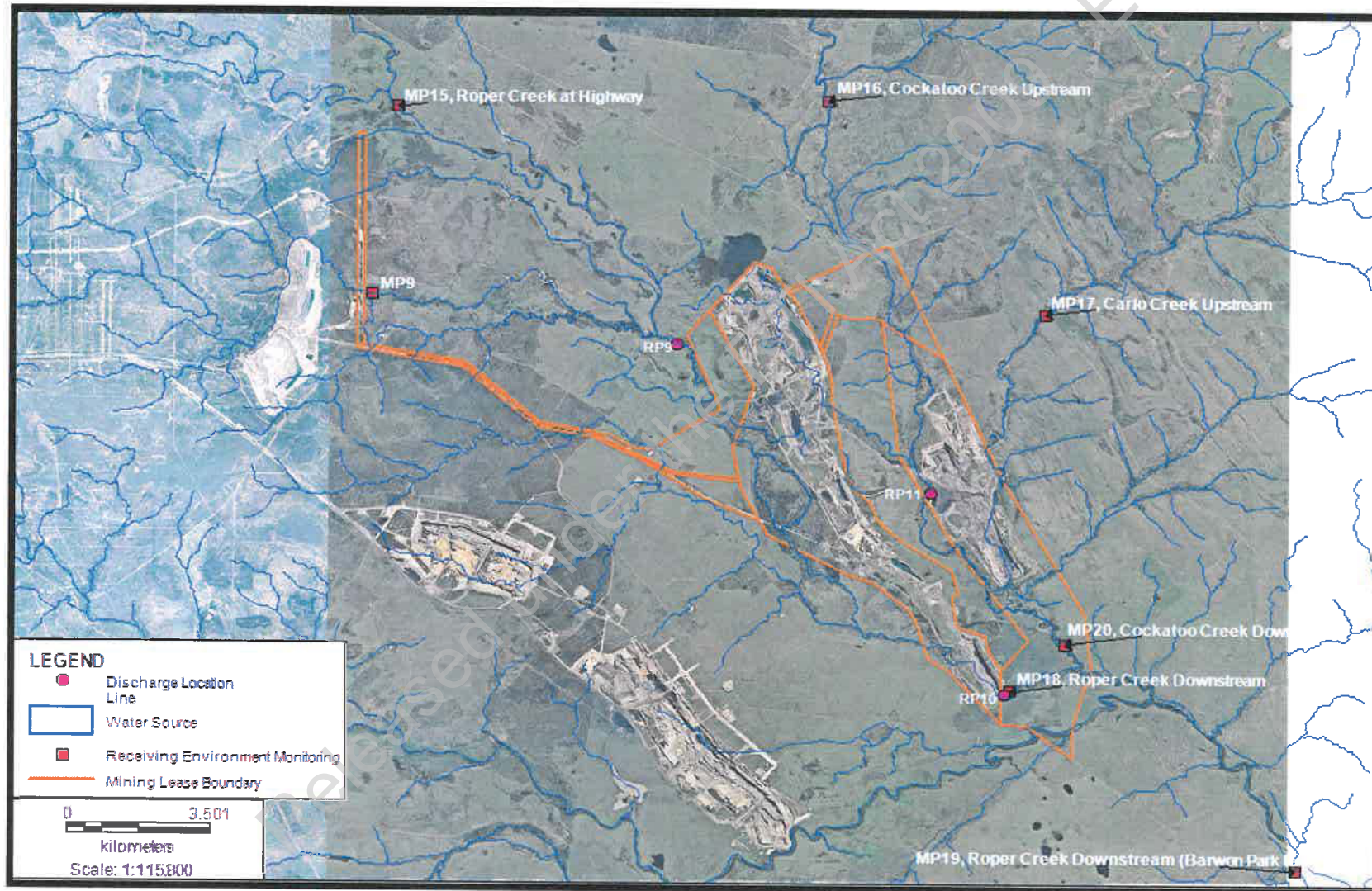
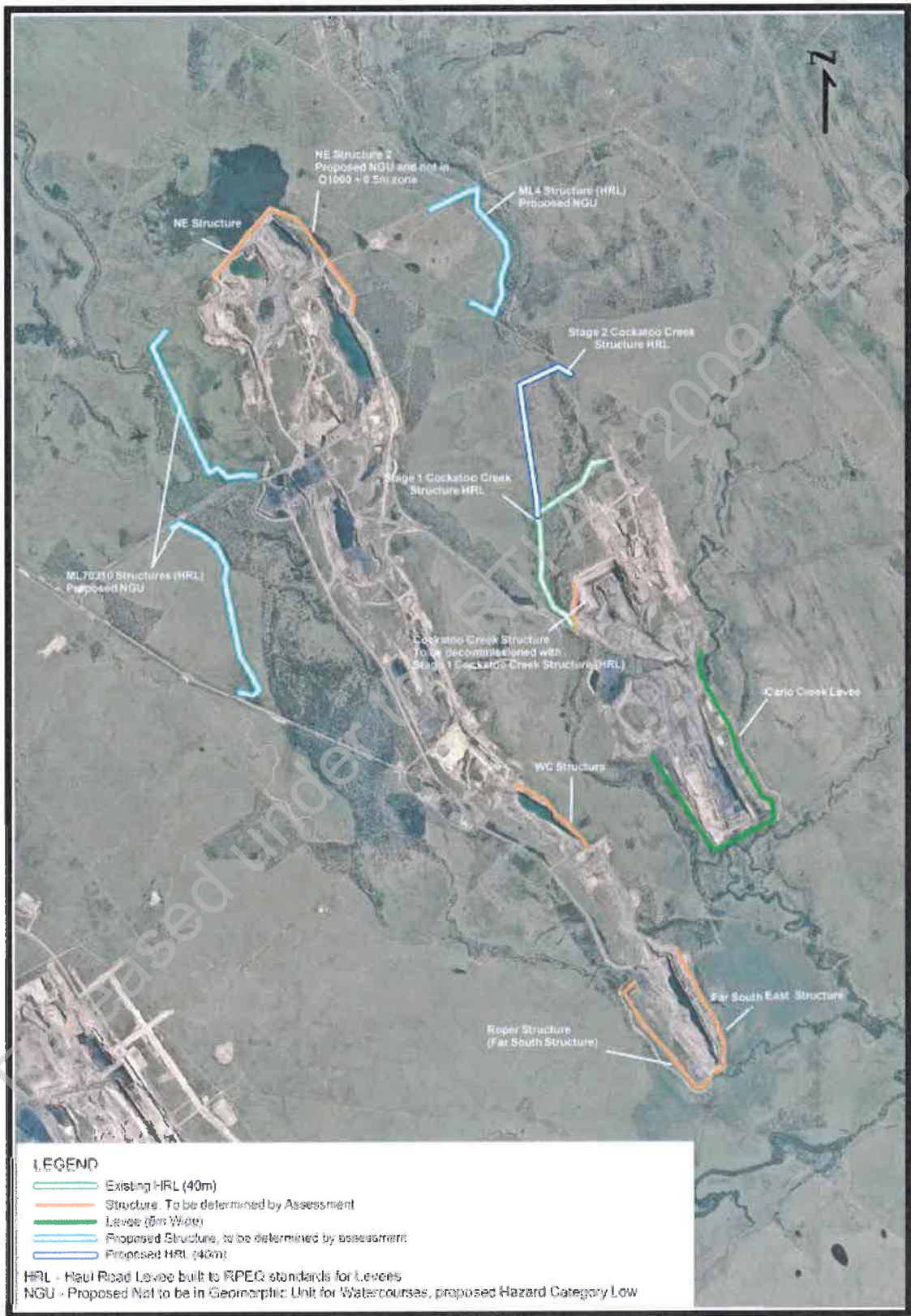


Figure 8 – Location of existing and proposed levees on ML70309, ML70171, ML70470, MLA70310



Figure

9 – Proposed levee locations on ML70429, ML70430 and ML70431.

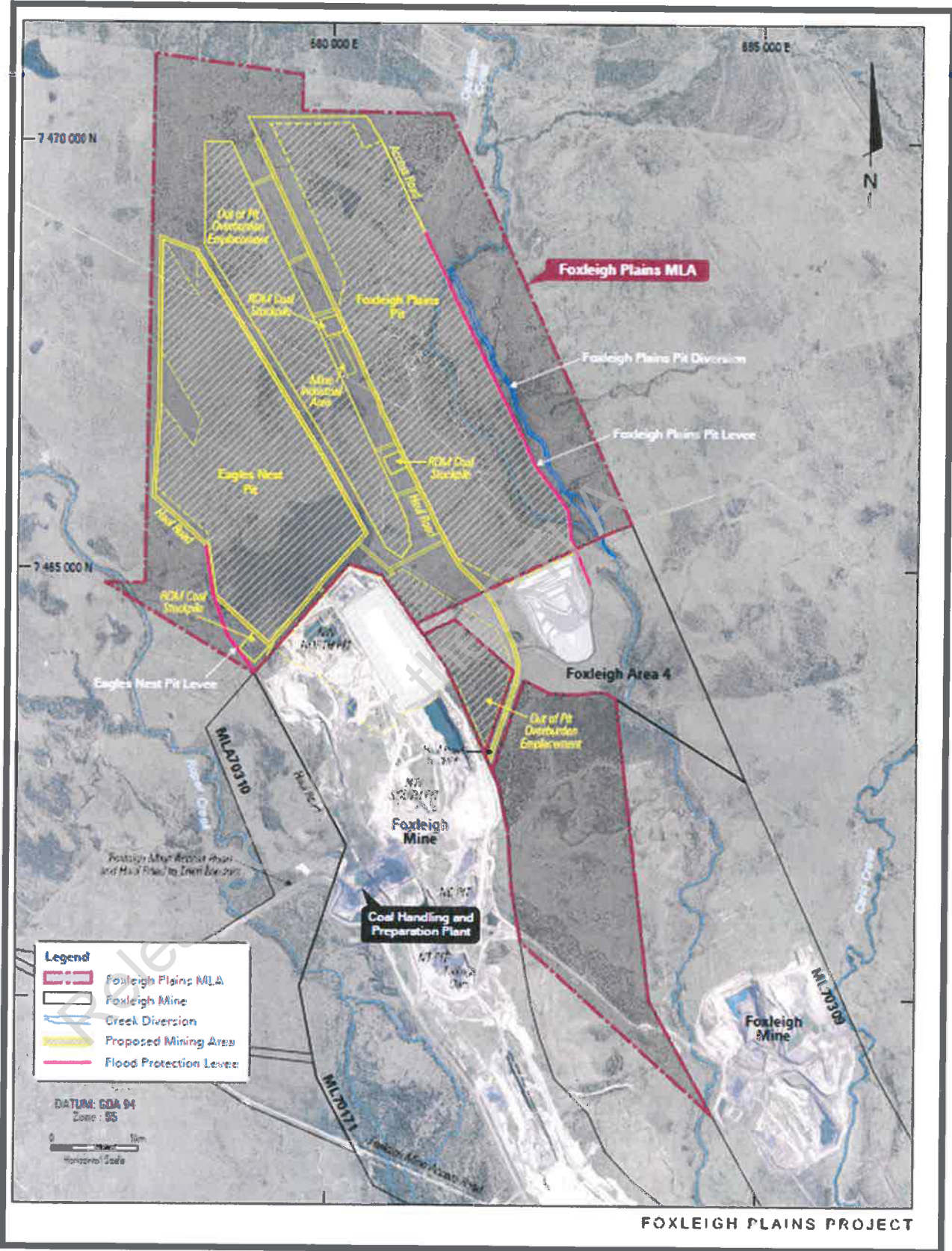


Figure 10 – Location of regulated dams (Note: map identification numbers are for Table 14)

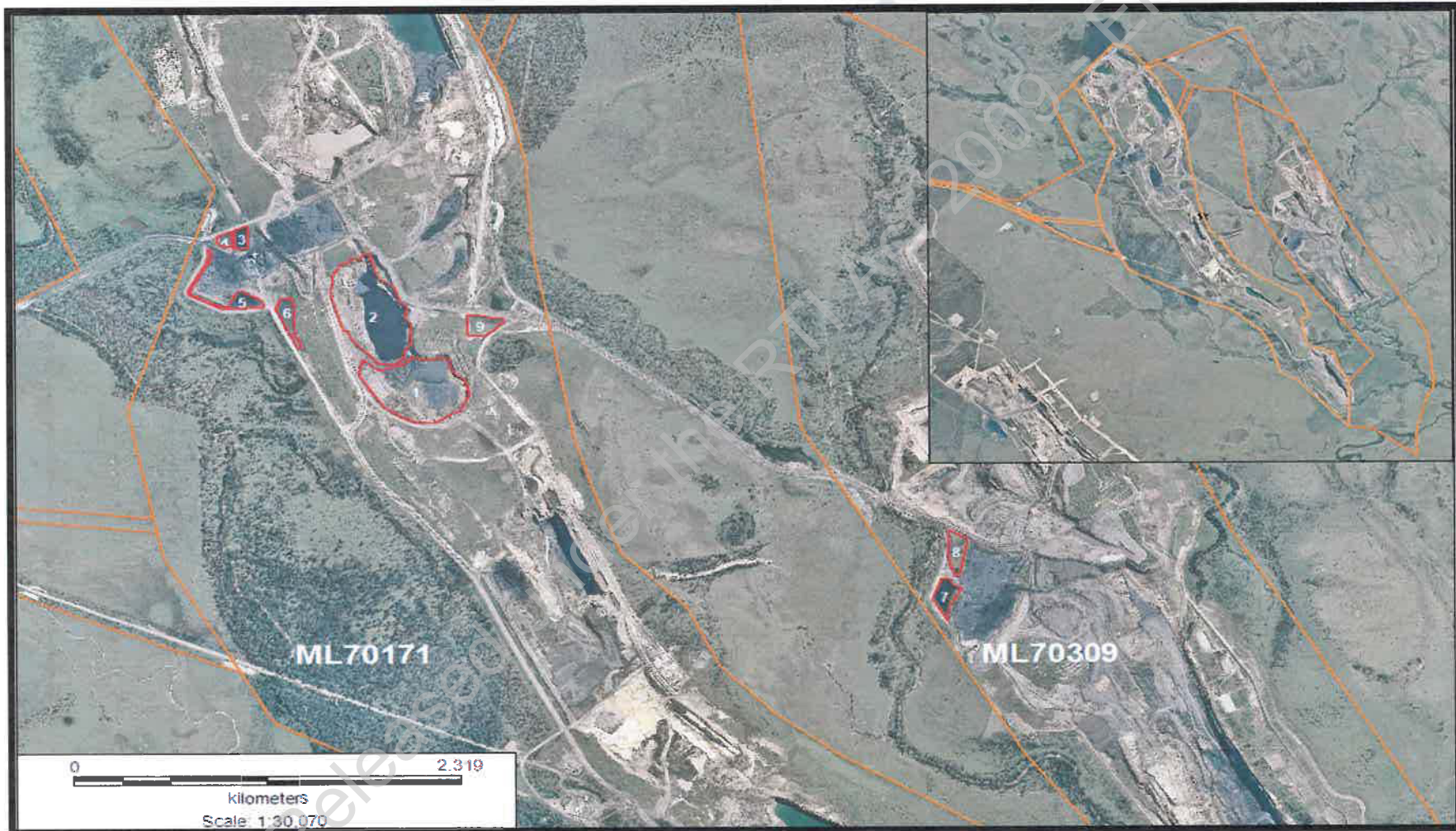


Figure 11: Appendix 5 of previous EA - Existing and Proposed Levee Locations (Transitional)



Appendix 2:

Rehabilitation Requirements

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
All mine surface features	<p>Infrastructure areas:</p> <ul style="list-style-type: none"> Raw and mine-affected water storage dams Roads and tracks ROM stockpile areas MIA (workshops and associated laydown, hardstand, fuel storage, washdown bay areas) CHPP Administration offices Explosive magazine Power reticulation network Fencing <p>Mining areas:</p> <ul style="list-style-type: none"> Residual Voids Spoil emplacement areas Mine residue storage areas 	<ol style="list-style-type: none"> Safe for humans and wildlife Non polluting Stable Able to sustain agreed post-mining land use 	<p>To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.</p> <p>Where agricultural land use applies, to return self-sustaining grazing land that is sustainable and economically viable.</p>	<p>Infrastructure removed as required and revegetated to a light grazing post mining land use.</p> <p>Potential for erosion of waste dump slopes is reduced by correct spoil placement and functional drainage.</p> <p>Adequate access areas used for agriculture that can be maintained into the future. Suitable vegetation is planted for agricultural uses.</p> <p>Adequate shade and water is available for stock use.</p> <p>Topsoil spread minimum 15cm depth, with no bare areas greater than 100m². Ripping to a minimum depth of 50cm at 1m spacing.</p> <p>Revegetation seed mix complies with final agreed land use.</p>	<p>Any infrastructure that is to remain post closure, shall have a written agreement between the post mining land owner and Anglo Coal (Foxleigh Management) Pty Ltd.</p> <p>Surface water run off quality is similar to the water quality of the surrounding catchment and within the EA conditions.</p> <p>Infrastructure areas land reshaped to slope range <10%. Adequate erosion control structures have been installed, with no sites of significant wind or gully erosion that will cause harm to fauna.</p> <p>Vegetation established across areas with a suitable species mix for the agreed final land use.</p> <p>Areas where agricultural land use applies, have pasture grass species present and provide stock with nutritional requirements, as well as being capable of setting viable seed and flowering similar to reference sites in the Middlemount area and/or with a land suitability class (grazing) of 4.</p>
Mining areas	Residual voids	<ol style="list-style-type: none"> Safe for humans and wildlife Non polluting 	Residual void water bodies are able to be accessed by wildlife, used for water supplies and/or used as	Stable highwalls left standing at the slope created by the final blast and a diversion bank provided at the top for safety	Final voids reshaped to a slope range of <70% for competent material or <45% for non-competent material or as stated as stated in an

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Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
		3. Stable 4. Able to sustain agreed post-mining land use	recreational facilities according to the final land use for that area.	and drainage. Any exposed coal seam covered with material to minimise highly saline water leaching into void water stores. Drains constructed to redirect surface water from flowing over the highwall or lowwall. Geotechnical stability and risk assessments conducted to determine the appropriate treatments prior to closure.	appropriate risk assessment conducted by a suitably qualified person. Drainage structures along highwalls and lowwalls have been revegetated, with water drainage that flows naturally without pooling or flooding.
	Spoil emplacement areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	Outer spoil slopes reshaped to 17%. Internally draining spoil slopes reshaped to <45% with appropriate spoil placement, functional drainage and erosion control structures to reduce slope erosion potential. Final rehabilitated spoil dumps will be hills with a mix of pasture and native species. Topsoil spread with no bare areas greater than 100m ² .	Spoil top of dump (out of pit and in-pit) surfaces have been constructed to a slope range < 10%. Side slopes have been constructed to a slope range < 17%. Outer spoil slopes are no longer than 100m without being broken by a bench.
	Mineral residue storage areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	Tailings material will be physically and chemically assessed to determine the appropriate capping required. Mineral residue material capped with coarse reject and/or spoil and revegetated with a mix of pasture and native species. Topsoil spread with no bare areas greater than 100m ² .	Mineral residue material capped with a suitable vegetation species mix established to meet the agreed final land use. Surface water run off quality is similar to the water quality of the surrounding catchment and within the EA conditions. Coarse reject landforms shaped to a slope range <10%.

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Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
Watercourse diversions	Creek diversions and levees	<ol style="list-style-type: none"> 1. Safe for humans and wildlife 2. Non polluting 3. Stable 4. Able to sustain agreed post-mining land use 	Creek diversions that operate in equilibrium with adjoining reaches of the watercourse.	<p>Creek diversion must incorporate similar geomorphic and riparian vegetation features to those of the pre-existing watercourse and adjoining landscape.</p> <p>Surface water qualities of flow events through the diversion are similar to the water quality of the surrounding catchment and within the EA conditions.</p> <p>Remediation of the disturbed area within the watercourse diversion and adjoining floodplain is stable with evidence of vegetation achieving a trajectory of self-sustainability.</p> <p>Topsoil spread with no bare areas greater than 100m². Revegetation seed mix complies with final agreed land use.</p>	TBA when final detailed design for cockatoo creek including detailed revegetation plan have been approved by the relevant Administering Authority.
All mine surface features	Infrastructure areas: <ul style="list-style-type: none"> • Raw and mine-affected water storage dams • Roads and tracks • ROM stockpile areas • MIA (workshops and associated laydown, hardstand, fuel storage, washdown bay 	<ol style="list-style-type: none"> 1. Safe for humans and wildlife 2. Non polluting 3. Stable 4. Able to sustain agreed post-mining land use 	<p>To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.</p> <p>Where agricultural land use applies, to return self-sustaining grazing land that is sustainable and economically viable.</p>	<p>Infrastructure removed as required and revegetated to a light grazing post mining land use.</p> <p>Potential for erosion of waste dump slopes is reduced by correct spoil placement and functional drainage.</p> <p>Adequate access areas used for agriculture that can be maintained into the future.</p>	<p>Any infrastructure that is to remain post closure, shall have a written agreement between the post mining land owner and Anglo Coal (Foxleigh Management) Pty Ltd.</p> <p>Surface water run off quality is similar to the water quality of the surrounding catchment and within the EA conditions.</p> <p>Infrastructure areas land reshaped to slope range <10%. Adequate</p>

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Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
	<ul style="list-style-type: none"> areas) CHPP Administration offices Explosive magazine Power reticulation network Fencing <p>Mining areas:</p> <ul style="list-style-type: none"> Residual Voids Spoil emplacement areas Mine residue storage areas 			<p>Suitable vegetation is planted for agricultural uses.</p> <p>Adequate shade and water is available for stock use.</p> <p>Topsoil spread minimum 15cm depth, with no bare areas greater than 100m². Ripping to a minimum depth of 50cm at 1m spacing.</p> <p>Revegetation seed mix complies with final agreed land use.</p>	<p>erosion control structures have been installed, with no sites of significant wind or gully erosion that will cause harm to fauna.</p> <p>Vegetation established across areas with a suitable species mix for the agreed final land use.</p> <p>Areas where agricultural land use applies, have pasture grass species present and provide stock with nutritional requirements, as well as being capable of setting viable seed and flowering similar to reference sites in the Middlemount area and/or with a land suitability class (grazing) of 4.</p>
Mining areas	Residual voids	<ol style="list-style-type: none"> Safe for humans and wildlife Non polluting Stable Able to sustain agreed post-mining land use 	Residual void water bodies are able to be accessed by wildlife, used for water supplies and/or used as recreational facilities according to the final land use for that area.	<p>Stable highwalls left standing at the slope created by the final blast and a diversion bank provided at the top for safety and drainage.</p> <p>Any exposed coal seam covered with material to minimise highly saline water leaching into void water stores.</p> <p>Drains constructed to redirect surface water from flowing over the highwall or lowwall.</p> <p>Geotechnical stability and risk assessments conducted to determine the appropriate treatments prior to closure.</p>	<p>Final voids reshaped to a slope range of <70% for competent material or <45% for non-competent material or as stated as stated in an appropriate risk assessment conducted by a suitably qualified person.</p> <p>Drainage structures along highwalls and lowwalls have been revegetated, with water drainage that flows naturally without pooling or flooding.</p>
	Spoil emplacement areas		To return a self-sustaining, low maintenance vegetation state with similar structure,	Outer spoil slopes reshaped to 17%. Internally draining spoil slopes reshaped to <45% with	Spoil top of dump (out of pit and in-pit) surfaces have been constructed to a slope range < 10%.

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Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
			composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	appropriate spoil placement, functional drainage and erosion control structures to reduce slope erosion potential. Final rehabilitated spoil dumps will be hills with a mix of pasture and native species. Topsoil spread with no bare areas greater than 100m ² .	Side slopes have been constructed to a slope range < 17%. Outer spoil slopes are no longer than 100m without being broken by a bench.
	Mineral residue storage areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	Tailings material will be physically and chemically assessed to determine the appropriate capping required. Mineral residue material capped with coarse reject and/or spoil and revegetated with a mix of pasture and native species. Topsoil spread with no bare areas greater than 100m ² .	Mineral residue material capped with a suitable vegetation species mix established to meet the agreed final land use. Surface water run off quality is similar to the water quality of the surrounding catchment and within the EA conditions. Coarse reject landforms shaped to a slope range <10%.
Watercourse diversions	Creek diversions and levees	5. Safe for humans and wildlife 6. Non polluting 7. Stable 8. Able to sustain agreed post-mining land use	Creek diversions that operate in equilibrium with adjoining reaches of the watercourse.	Creek diversion must incorporate similar geomorphic and riparian vegetation features to those of the pre-existing watercourse and adjoining landscape. Surface water qualities of flow events through the diversion are similar to the water quality of the surrounding catchment and within the EA conditions. Remediation of the disturbed area within the watercourse	TBA when final detailed design for cockatoo creek including detailed revegetation plan have been approved by the relevant Administering Authority.

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Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
				<div>diversion and adjoining floodplain is stable with evidence of vegetation achieving a trajectory of self-sustainability.</div> <div>Topsoil spread with no bare areas greater than 100m². Revegetation seed mix complies with final agreed land use.</div>	

END OF PERMIT

Environmental authority EPML00744813 – Foxleigh Mine

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Permit¹ number: EPML00744813

Takes Effect From: 18 December 2015

Anniversary date: 21 September

Environmental authority holder(s)

Name	Registered address
CAML Resources Pty Ltd	Ground Floor 201 Charlotte Street Brisbane QLD 4000
Nippon Steel & Sumitomo Metal Australia Pty Ltd	
Anglo Coal (Foxleigh) Pty Ltd	

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
<i>Environmental Protection Regulation 2008, Schedule 2A:</i> ERA13 Mining black coal	ML70171 ML70309 ML70310 ML70429 ML70430 ML70431 ML70470
<i>Environmental Protection Regulation 2008, Schedule 2:</i> ERA 31 Mineral processing, Threshold 2 – Processing, in a year, the following quantities of mineral products, other than coke – (b) more than 100,000t.	
ERA 8 Chemical storage, Threshold 3 – Storing more than 500m ³ total quantity of chemicals of Class 1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection 1(c).	
ERA 15 Fuel burning – Using fuel burning equipment that is capable of burning at least 500kg of fuel in an hour.	
ERA 16 Extractive and screening activities, Threshold 3 – Screening, in a year, the following quantity of material – (c) more than 1,000,000t.	
ERA 33 Crushing, milling grinding or screening – Crushing, grinding, milling or screening more than 5,000t of material in a year.	

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

Environmental authority EPML00744813 – Foxleigh Mine

ERA 56 Regulated waste storage – Receiving and storing regulated waste.	
ERA 60 Waste disposal, Threshold 1 – Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) – (a) less than 50,000t.	

Additional information for applicants*Environmentally relevant activities*

The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental authority as to the scale, intensity or manner of carrying out an ERA, then the conditions prevail to the extent of the inconsistency.

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within twenty-two (22) business days after becoming so aware, give written notice to the chief executive.

sch4p4(6) Personal information

Signature

18/12/2015

Date

Wayne Boyd
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Buisness Centre (Coal)
Department of Environment and Heritage
Protection
PO Box 3028
EMERALD QLD 4720
Phone: (07) 4987 9320
Email: CRMining@ehp.qld.gov.au

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Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

Schedule A - General	
Condition number	Condition
A1	This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.
A2	In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with Schedule A —Figures 1, 2, 3, 4 and 5 (Existing and proposed mining activities) in Appendix 1.
Maintenance of Measures, Plant and Equipment	
A3	The holder of this environmental authority must: <ol style="list-style-type: none"> install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; maintain such measures, plant and equipment in a proper and efficient condition; operate such measures, plant and equipment in a proper and efficient manner; and ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.
Monitoring	
A4	Upon request from the administering authority, copies of monitoring records and reports should be made available and provided to the administering authority's nominated office within 10 business days or an alternative timeframe agreed between the administering authority and the holder.
A5	Any management or monitoring plans, systems or programs required to be developed and implemented by a condition of this environmental authority should be reviewed for effectiveness in minimising the likelihood of environmental harm on an annual basis, and amended promptly if required, unless a particular review date and amendment program is specified in the plan, system or program.

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A6	Except where specified otherwise in another condition of this authority, all monitoring records or reports required by this environmental authority must be kept for a period of not less than 5 years.
Financial assurance	
A7	The activity must not be carried out until the environmental authority holder has given financial assurance in accordance with the most recent edition of the administering authority's: <i>Guideline—Calculating financial assurance for mining projects</i> , to the administering authority as security for compliance with this environmental authority and any costs or expenses, or likely costs or expenses, mentioned in <i>section 298</i> of the <i>EP Act</i> .
A8	The amount of financial assurance must be reviewed by the holder of this environmental authority when a plan of operations is amended or replaced or the authority is amended.
Risk management	
A9	The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the <i>Standard for Risk Management (ISO31000:2009)</i> , or the latest edition of an Australian standard for risk management, to the extent relevant to environmental management, by three (3) months from the issue of this EA.
Notification of emergencies, incidents and exceptions	
A10	The holder of this environmental authority must notify the administering authority by written notification within 24 hours, after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority.
A11	Within 10 business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following: <ul style="list-style-type: none"> a) results and interpretation of any samples taken and analysed; b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and c) proposed actions to prevent a recurrence of the emergency or incident.
Chemicals and flammable or combustible liquids	
A12	All explosives, hazardous chemicals, corrosive substances, toxic substances, gases and dangerous goods must be stored and handled in accordance with the current Australian standard where such is applicable.
A13	Minimise the potential for contamination of land and waters by diverting stormwater around contaminated areas and facilities used for the storage of chemicals and flammable or combustible liquids.

Complaint Response	
A14	<p>The holder of this environmental authority must record all environmental complaints received about the mining activities including:</p> <ul style="list-style-type: none"> a) name, address and contact number for of the complainant; b) time and date of complaint; c) reasons for the complaint; d) investigations undertaken; e) conclusions formed; f) actions taken to resolve the complaint; g) any abatement measures implemented; and, h) any person responsible for resolving the complaint.
A15	<p>The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within 10 business days of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.</p>
Third-party reporting	
A16	<p>The holder of this environmental authority must:</p> <ul style="list-style-type: none"> a) within 1 year of the commencement of this authority, obtain from a suitably qualified and experienced third party a report on compliance with the conditions of this environmental authority; b) obtain further such reports at regular intervals not exceeding 3 years from the completion of the report referred to above; and c) provide each report to the administering authority within 90 days of its completion.
A17	<p>Where a condition of this environmental authority requires compliance with a standard, policy or guideline published externally to this environmental authority and the standard is amended or changed subsequent to the issue of this environmental authority the holder of this environmental authority must:</p> <ul style="list-style-type: none"> a) comply with the amended or changed standard, policy or guideline within 2 years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation, or where the amendment or change relates specifically to regulated structures referred to in condition J48, the time specified in that condition; and b) until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.

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Schedule B - Air	
Dust Nuisance	
B1	<p>The proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the dust and particulate matter emissions generated by the mining activities do not cause exceedances of the following levels when measured at any sensitive or commercial place:</p> <ul style="list-style-type: none"> a) Dust deposition of 120 milligrams per square metre per day, averaged over 1 month, when monitored in accordance with the most recent version of <i>Australian Standard AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter – Gravimetric method</i>. b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, for no more than 5 exceedances recorded each year, when monitored in accordance with the most recent version of either: <ul style="list-style-type: none"> i) <i>Australian Standard AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet – Gravimetric method</i>, or ii) <i>Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 low volume sampler—Gravimetric method</i>. c) A concentration of particulate matter suspended in the atmosphere of 90 micrograms per cubic metre over a 1 year averaging time, when monitored in accordance with the most recent version of <i>AS/NZS3580.9.3:2003 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—Total suspended particulate matter (TSP)—High volume sampler gravimetric method</i>.
Meteorological Monitoring	
B2	<p>The environmental authority holder must establish and maintain a permanent automatic meteorological station to continuously measure and record wind speed, wind direction, temperature, relative humidity and rainfall intensity.</p> <p><i>Note: It is possible for environmental authority holders to utilise relevant and available weather monitoring information collected by other parties as reference data for the purposes of this condition.</i></p>
Odour Nuisance	
B3	<p>The release of noxious or offensive odour(s) or any other noxious or offensive airborne contaminant(s) resulting from the mining activity must not cause an environmental nuisance at any nuisance sensitive or commercial place.</p>
B4	<p>When requested by the administering authority, odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaints (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within fourteen (14) days to the administering authority following completion of monitoring.</p>

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B5	<p>If the administering authority determines the odour released to constitute an environmental nuisance, then the environmental authority holder must:</p> <ul style="list-style-type: none"> a) address the complaint including the use of appropriate dispute resolution if required; and b) immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance.
Schedule C - Waste management	
C1	<p>Unless otherwise permitted by the conditions of this environmental authority or with prior approval from the administering authority and in accordance with a relevant standard operating procedure, waste must not be burnt.</p>
C2	<p>The holder of this environmental authority may burn vegetation cleared in the course of carrying out the extraction activities provided the activities does not cause environmental harm at any environmentally sensitive place and adheres to the following conditions:</p> <ul style="list-style-type: none"> a) be in accordance with a Permit to Burn issued under the <i>Fire and Rescue Service Act 1990</i>; b) ensure retained trees are not damaged by the burn; c) ensure any infrastructure is not damaged or affected by the burn; d) be 20 metres from any watercourse; e) any nearby neighbors must be notified; and, f) fire authorities must be notified.
Tailings disposal	
C3	<p>Tailings must be managed in accordance with procedures contained within the plan of operations. These procedures must include provisions for:</p> <ul style="list-style-type: none"> a) containment of tailings; b) the management of seepage and leachates both during operation and the foreseeable future; c) the control of fugitive emissions to air; d) a program of progressive sampling and characterisation to identify acid producing potential and metal concentrations of tailings; e) maintaining records of the relative locations of any other waste stored within the tailings; f) rehabilitation strategy; and g) monitoring of rehabilitation, research and/or trials to verify the requirements and methods for decommissioning and final rehabilitation of tailings, including the prevention and management of acid mine drainage, erosion minimisation and establishment of vegetation cover.

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Acid sulphate soils	
C4	Treat and manage acid sulphate soils in accordance with the latest edition of the <i>Queensland Acid Sulfate Soil Technical Manual</i> .
Waste rock	
C5	<p>A waste rock and spoil disposal plan should be developed and include, where relevant, at least:</p> <ul style="list-style-type: none"> a) effective characterisation of the waste rock and spoil to predict under the proposed placement and disposal strategy the quality of runoff and seepage generated concerning potentially environmentally significant effects including salinity, acidity, alkalinity and dissolved metals, metalloids and non-metallic inorganic substances; b) a program of progressive sampling and characterisation to identify dispersive and non-dispersive spoil and the salinity, acid and alkali producing potential and metal concentrations of waste rock; c) A materials balance and disposal plan demonstrating how potentially acid forming and acid forming waste rock will be selectively placed and/or encapsulated to minimise the potential generation of acid mine drainage; d) where relevant, a sampling program to verify encapsulation and/or placement of potentially acid-forming and acid-forming waste rock; e) how often the performance of the plan will be assessed; f) the indicators or other criteria on which the performance of the plan will be assessed; and g) rehabilitation strategy.
Schedule D - Noise and Vibration	
Noise Nuisance	
D1	Subject to condition D2 noise from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.
D2	When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within ten (10) business days to the administering authority following completion of monitoring.
D3	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's <i>Noise Measurement Manual</i> .
Vibration Nuisance	
D4	Subject to condition D5 vibration from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.
D5	When requested by the administering authority, vibration monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within ten (10) business days to the administering authority following completion of monitoring.

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Airblast Overpressure Nuisance

D6	The airblast overpressure level from blasting operations must not exceed the limits defined in <i>Table 1 - Airblast Overpressure Level</i> at any sensitive or commercial place.
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Table 1: Airblast Overpressure Level

Location	Airblast Overpressure Measured
Sensitive or commercial place	Air blast overpressure level of 115 db (Linear peak) for nine (9) out of ten (10) consecutive blasts initiated and not greater than 120 db (Linear peak) at any time.

D7	When requested by the administering authority, airblast overpressure monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within ten (10) business days to the administering authority following completion of monitoring.
D8	Airblast overpressure monitoring must include the following descriptors, characteristics and conditions: <ul style="list-style-type: none"> a) location of the blast(s) within the mining area; b) atmospheric conditions including temperature, relative humidity and wind speed and direction; and c) location, date and time of recording.
D9	If monitoring indicates exceedence of the relevant limits in Table 1 - <i>Airblast Overpressure Level</i> , then the environmental authority holder must: <ul style="list-style-type: none"> a) address the complaint including the use of appropriate dispute resolution if required; and b) immediately implement airblast overpressure abatement measures so that airblast overpressure from the activity does not result in further environmental nuisance.
D10	The method of measurement and reporting of airblast overpressure levels must comply with the current edition of the administering authority's <i>Noise Measurement Manual</i> .

Schedule E - Groundwater

E1	The holder of this environmental authority must not release contaminants to groundwater.
E2	All determinations of groundwater quality and biological monitoring must be performed by an appropriately qualified person.
E3	The holder of the environmental authority must develop and implement a groundwater monitoring program to monitor groundwater quality and levels by 30 May 2016 . Groundwater monitoring locations and frequencies as per Table 2 - <i>Groundwater monitoring locations and frequency</i> , quality triggers and limits as per Table 3 - <i>Groundwater quality triggers and limits</i> and level trigger thresholds as per Table 4 - <i>Groundwater Level Monitoring</i> must be finalised based on background groundwater monitoring program defined in condition E4 and be submitted to the administering authority by 30 May 2016 .

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Table 2: Groundwater monitoring locations and frequency

Monitoring Point	Easting (GDA 94)	Northing (GDA 94)	Surface RL (m) ¹	Monitoring Frequency
GMP1	678180	7465000	To be supplied to the administering authority in accordance with condition E3.	Levels collected from Rewan and underlying coal measure formations and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly.
GMP2	678370	7470200	To be supplied to the administering authority in accordance with condition E3.	Levels collected from Rewan and underlying coal measure formations and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly.
GMP3	681400	7470100	To be supplied to the administering authority in accordance with condition E3.	Levels collected from underlying coal measure formations and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly.
GMP4	681400	7470100	To be supplied to the administering authority in accordance with condition E3.	Samples collected from alluvium and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly. Standing water levels to be measured monthly.

Table 3: Groundwater quality triggers and limits

Water Quality Indicator	Unit	Contaminant Triggers	Contaminant Limit
Aluminium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Antimony	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Arsenic	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Calcium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Chlorine	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
CO ₃	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Dissolved Solids (Total)	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Electrical Conductivity	µS/cm	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
HCO ₃	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Iron	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Magnesium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Mercury	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Molybdenum	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
pH	pH Units	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Potassium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Selenium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Silver	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
SO ₄	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Sodium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.

Table 4: Groundwater level monitoring

Monitoring Point	Level trigger threshold
GMP1	To be supplied to the administering authority as required by condition E3
GMP2	To be supplied to the administering authority as required by condition E3
GMP3	To be supplied to the administering authority as required by condition E3
GMP4	To be supplied to the administering authority as required by condition E3

E4	<p>A background groundwater monitoring program must be developed to include the following:</p> <ul style="list-style-type: none"> a) groundwater monitoring locations (bore(s)) that are located an appropriate distance from potential sources of impact from mining activities and are representative of the aquifers potentially affected by mining activities b) representative groundwater samples from each of the bores; c) containment parameters, background groundwater levels, quality triggers and contaminant limits must be determined; d) sampling at a frequency of not less than monthly must be undertaken to determine groundwater levels and quality; e) finalise the required information relating to groundwater under Table 3 - <i>Groundwater quality triggers and limits</i>, Table 4 - <i>Groundwater monitoring locations</i> and Table 5 - <i>Mine affected water release points, sources and receiving waters</i> of this Environmental Authority; <p>Review of the results from the groundwater monitoring program must occur to determine if further assessment on the following aspects below would be warranted:</p> <ul style="list-style-type: none"> a) groundwater interactions with surface waters of Cockatoo Creek; b) impacts on potential shallow alluvial stygofauna; c) impacts on potential groundwater dependent ecosystems across the site; and d) the role of the Rewan formation and groundwater storage in associated sediments. <p><i>Note: If a review of the results indicate deficiencies in data recorded, or, warrants that further assessment is required, the holder of the EA must undertake a more detailed assessment and present a report to the department outlining associated risks within the time period specified by the department.</i></p>
E5	<p>The groundwater level and the water quality indicators specified in Table 3 - <i>Groundwater quality triggers and limits</i> must be monitored for at the locations in Table 2 - <i>Groundwater monitoring locations and frequency</i> and Figure 4 - <i>Groundwater monitoring locations</i> at the frequencies in Table 2 - <i>Groundwater monitoring locations and frequency</i>.</p>
E6	<p>Groundwater levels when measured at the monitoring locations specified in Table 2 - <i>Groundwater monitoring locations and frequency</i> and Figure 4 - <i>Groundwater monitoring locations</i> must not exceed the groundwater level trigger thresholds specified in Table 4 - <i>Groundwater level monitoring</i>.</p>
E7	<p>If water quality indicators listed in Table 3 - <i>Groundwater quality triggers and limits</i> are found to exceed any of the contaminant limits stated in Table 3 - <i>Groundwater quality triggers and limits</i>, or, groundwater levels stated in Table 4 - <i>Groundwater level monitoring</i> are found to exceed any of the level trigger thresholds, the holder of this environmental authority must complete an investigation in accordance with the ANZECC and ARMCANZ 2000.</p>

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E8	Results of monitoring groundwater from compliance bores identified in Table 2 - <i>Groundwater monitoring locations and frequency</i> must not exceed any of the contaminant limits defined in Table 3 - <i>Groundwater quality triggers and limits</i> .
Bore construction and maintenance and decommissioning	
E9	The construction, maintenance and management of groundwater bores (including groundwater monitoring bores) must be undertaken in a manner that prevents or minimises impacts to the environment and ensures the integrity of the bores to obtain accurate monitoring
Schedule F - Water	
Contaminant release	
F1	Contaminants that will, or have the potential to cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.
F2	Unless otherwise permitted under the conditions of this environmental authority, the release of mine affected water to waters must only occur from the release points specified in Table 5 - <i>Mine affected water release point, sources and receiving waters</i> and depicted in Figure 7 - <i>Release Points and Monitoring Point Locations</i> attached to this environmental authority.

Table 5: Mine affected water release points, sources and receiving waters

Release Point (RP)	Latitude (decimal degree, GDA94)	Longitude (decimal degree, GDA94)	Mine affected water source and location	Monitoring Point		Receiving waters description
				Water flow	Water quality	
RP 1	-22.9180	148.7890	ML4 Pits, Foxleigh and Foxleigh Plains mining areas	Cockatoo Creek US	Roper Creek DS2	Cockatoo Creek
RP 2	-22.9679	148.7992	Foxleigh and Foxleigh Plains mining areas	Cockatoo Creek US	Roper Creek DS2	Cockatoo Creek
RP 3	-23.0164	148.8196	Far South, Foxleigh and Foxleigh Plains mining areas	Roper Creek US	Roper Creek DS2	Roper Creek

F3	The release of mine affected water to internal water management infrastructure installed and operated in accordance with a water management plan that complies with conditions F31 and F32 is permitted.
F4	The release of mine affected water to waters in accordance with condition F2 must not exceed the release limits stated in Table 6 – <i>Mine affected water release limits</i> when measured at the monitoring points specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i> , Table 8a – Flow triggers to start mine affected water release and Table 8b Flow triggers to cease mine affected water release for each quality characteristic.

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Table 6: Mine affected water release limits

Quality Characteristic	Release Limits	Monitoring Frequency
Electrical Conductivity ($\mu\text{S/cm}$)	Electrical conductivity ($\mu\text{S/cm}$) <10,000	Daily during release (the first sample must be taken within two (2) hours of commencement of release)
pH (pH Unit)	6.5 (minimum) 9.0 (maximum)	Daily during release (the first sample must be taken within two (2) hours of commencement of release)
Turbidity (NTU)	Current limit or limit derived from suspended solids limit and demonstrated correlation between turbidity to suspended solids historical monitoring data for dam water*	Daily during release* (first sample within two hours of commencement of release) Note: Turbidity is required to assess ecosystems impacts and can provide instantaneous results.
Suspended solids (mg/L)	650* Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment*	Daily during release* (first sample within two hours of commencement of release)
Sulphate (SO_4^{2-}) (mg/L)	Sulphate (SO_4^{2-}) (mg/L) < 3,000	Daily during release* (first sample within two hours of commencement of release)

Note: *Limit for suspended solids can be omitted if turbidity limit is included. Limit for turbidity not required if suspended solids limit included. Both indicators should be measured in all cases.

F5	<p>The release of mine affected water to waters from the release points must be monitored at the locations specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i> for each quality characteristics and at the frequency specified in Table 6 -- <i>Mine affected water release limits</i> and Table 8a – <i>Flow Triggers to start Mine Affected Water Release</i> and Table 8b - <i>Flow Triggers to cease Mine Affected Water Release</i>.</p> <p>Note: The administering authority will take into consideration any extenuating circumstances prior to determining an appropriate enforcement response. In the event condition F5 is contravened due to a temporary lack of safe or practical access. The administering authority expects the environmental authority holder to take all reasonable and practicable measures to maintain safe and practical access to designated monitoring locations.</p>
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Table 7: Release contaminant trigger investigation levels, potential contaminants

Quality characteristic	Trigger levels ($\mu\text{g/L}$)	Comment on trigger level	Monitoring frequency
Aluminium	55	For aquatic ecosystem protection, based on SMD guideline	Commencement of release and thereafter weekly during release
Arsenic	13	For aquatic ecosystem protection, based on SMD guideline	
Cadmium	0.2	For aquatic ecosystem protection, based on SMD guideline	
Chromium	1	For aquatic ecosystem protection, based on SMD guideline	
Copper	2	For aquatic ecosystem protection, based on SMD guideline	
Iron	300	For aquatic ecosystem protection, based on low reliability guideline	
Lead	4	For aquatic ecosystem protection, based on SMD guideline	
Mercury	0.2	For aquatic ecosystem protection, based on LOR for CV FIMS	
Nickel	11	For aquatic ecosystem protection, based on SMD guideline	

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Quality characteristic	Trigger levels (µg/L)	Comment on trigger level	Monitoring frequency
Zinc	8	For aquatic ecosystem protection, based on SMD guideline	
Boron	370	For aquatic ecosystem protection, based on SMD guideline	
Cobalt	90	For aquatic ecosystem protection, based on low reliability guideline	
Manganese	1900	For aquatic ecosystem protection, based on SMD guideline	
Molybdenum	34	For aquatic ecosystem protection, based on low reliability guideline	
Selenium	10	For aquatic ecosystem protection, based on LOR for ICPMS	
Silver	1	For aquatic ecosystem protection, based on LOR for ICPMS	
Uranium	1	For aquatic ecosystem protection, based on LOR for ICPMS	
Vanadium	10	For aquatic ecosystem protection, based on LOR for ICPMS	
Ammonia	900	For aquatic ecosystem protection, based on LOR for ICPMS	
Nitrate	1100	For aquatic ecosystem protection, based on ambient Qld WQ Guidelines (2006) for TN	
Sodium	TBA		
Petroleum hydrocarbons (C6-C9)	20		
Petroleum hydrocarbons (C10-C36)	100		
Fluoride (total)	2000	Protection of livestock and short term irrigation guideline	
Suspended Solids	Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment*		
Sulphate (SO42-) (mg/L)	Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment*	Drinking water environmental values from NHMRC 2006 guidelines OR ANZECC	

Notes:

1. All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Trigger levels for metal/metalloids apply if dissolved results exceed trigger.
2. The quality characteristics required to be monitored as per Table 3 can be reviewed once the results of two years monitoring data is available, or if sufficient data is available to adequately demonstrate negligible environmental risk. It may be determined that a reduced monitoring frequency is appropriate or certain quality characteristics can be removed from Table 3 by amendment.
3. SMD—slightly moderately disturbed level of protection, guideline refers ANZECC & ARM CANZ (2000).
4. LOR—typical reporting for method stated. ICPMS/CV FIMS—analytical method required to achieve LOR.

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Table 8a: Flow Triggers to start Mine Affected Water Release

Receiving Waters / Stream	Release Point	Monitoring Point	Monitoring Point Latitude (decimal degree, GDA94)	Monitoring Point Longitude (decimal degree, GDA94)	Receiving Water Flow Recording Frequency	Receiving Water Flow Criteria to start discharge (m ³ /s)	Maximum release rate for all combined RP flows
Cockatoo Creek	RP 1	Cockatoo Creek US	-22.8904	148.7661	Continuous (minimum daily)	0.66	2m ³ /s
Cockatoo Creek	RP 2	Cockatoo Creek US	-22.8904	148.7661	Continuous (minimum daily)	0.66	
Roper Creek	RP 3	Roper Creek US	-22.8762	148.6719	Continuous (minimum daily)	0.95	

Table 8b: Flow Triggers to Cease Mine Affected Water Release

Receiving Waters / Stream	Release Point (RP)	Monitoring Point	Monitoring Point Latitude (decimal degree, GDA94)	Monitoring Point Longitude (decimal degree, GDA94)	Receiving Water Flow Recording Frequency	Minimum Receiving Water Flow Criteria to continue discharge (m ³ /s)
Cockatoo Creek	RP 1	Roper Creek DS2	-23.0105	148.8415	Continuous (minimum daily)	0.5
Cockatoo Creek	RP 2	Roper Creek DS2	-23.0105	148.8415	Continuous (minimum daily)	0.5
Roper Creek	RP 3	Ropers Creek DS2	-23.0105	148.8415	Continuous (minimum daily)	0.5

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Notification of release event	
F16	<p>The environmental authority holder must notify the administering authority as soon as practicable and no later than 24 hours after commencing to release mine affected water to the receiving environment. Notification must include the submission of written advice to the administering authority of the following information:</p> <ul style="list-style-type: none"> a) release commencement date/time; b) details regarding the compliance of the release with the conditions of Department Interest: Water of this environmental authority (that is, contaminant limits, natural flow, discharge volume) c) release point(s); d) release rate e) release salinity; and f) receiving water(s) including the natural flow rate. <p><i>Note: Notification to the administering authority must be addressed to the Manager and Project Manager of the local administering authority via email or facsimile.</i></p>
F17	<p>The environmental authority holder must notify the administering authority as soon as practicable and nominally no later than 24 hours after cessation of a release event of the cessation of a release notified under condition F17 and within 28 days provide the following information in writing:</p> <ul style="list-style-type: none"> a) release cessation date/time; b) natural flow volume in receiving water; c) volume of water released; d) details regarding the compliance of the release with the conditions of Department Interest ; Water of this environmental authority (i.e. contamination limits, natural flow, discharge volume); e) all in-situ water quality monitoring results; and f) any other matters pertinent to the water release event. <p><i>Note: Successive or intermittent releases occurring within 24 hours of the cessation of any individual release can be considered part of a single release event and do not require individual notification for the purpose of compliance with conditions F17 and F18, provided the relevant details of the release are included within the notification provided in accordance with conditions F17 and F18.</i></p>
Notification of release event exceedance	
F18	<p>If the release limits defined in Table 6 – <i>Mine affected water release limits</i>, Table 8a – <i>Flow triggers to start mine affected water release</i> and Table 8b - <i>Flow triggers to cease mine affected water release</i> are exceeded, the holder of the environmental authority must notify the administering authority within 24 hours of receiving the results.</p>

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F6	<p>If quality characteristics of the release exceed any of the trigger levels specified in Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i> during a release event, the environmental authority holder must compare the downstream results in the receiving waters to the trigger values specified in Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i> and:</p> <ul style="list-style-type: none"> a) where the trigger values are not exceeded then no action is to be taken; or b) where the downstream results exceed the trigger values specified Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i> for any quality characteristic, compare the results of the downstream site to the data from background monitoring sites and; <ul style="list-style-type: none"> 1) if the result is less than the background monitoring site data, then no action is to be taken; or 2) if the result is greater than the background monitoring site data, complete an investigation into the potential for environmental harm and provide a written report to the administering authority within 90 days of receiving the result, outlining: <ul style="list-style-type: none"> i) details of the investigations carried out; and ii) actions taken to prevent environmental harm. <p>Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with F6(b)(2) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.</p>
F7	<p>If an exceedance in accordance with condition F6(b)(2) is identified, the holder of the authority must notify the administering authority in writing within 24 hours of receiving the result.</p>
Mine affected water release events	
F8	<p>The holder must ensure a stream flow gauging station(s) is installed, operated and maintained to determine and record stream flows at the locations and flow recording frequency specified in Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i>.</p>
F9	<p>Notwithstanding any other condition of this environmental authority, the release of mine affected water to waters in accordance with condition F2 must only start when natural flow in the receiving environment meets the trigger values specified in Table 8a – <i>Flow Triggers to start Mine Affected Water Release</i> for the release point(s) specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i>.</p>
F10	<p>The releases of mine affected water to waters in accordance with conditions F6 must not exceed a maximum release rate for all combined release points flows of 2m³/s</p>
F11	<p>The electrical conductivity (EC) values recorded at the downstream monitoring point on Roper Creek (Roper Creek DS2) must not exceed 2000µS/cm at any time during the release influence period.</p>
F12	<p>The electrical conductivity (EC) values recorded at the Barwon Park monitoring station on Roper Creek (Roper Creek Barwon Park) must not exceed 1500 µS/cm at any time during the release influence period.</p>
F13	<p>If electrical conductivity (EC) recorded at Bingegang Weir exceeds 650µS/cm during a release event, the environmental authority holder must immediately notify the administering authority and seek written approval to continue releasing mine affected water.</p>
F14	<p>The daily quantity of mine affected water released from each release point must be measured and recorded.</p>
F15	<p>Releases to waters must be undertaken so as not to cause erosion of the bed and banks of the receiving waters, or cause a material build-up of sediment in such waters.</p>

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Environmental authority EPML00744813 – Foxleigh Mine

F19	<p>The environmental authority holder must, within 28 days of a release that exceeds the conditions of this authority, provide a report to the administering authority detailing:</p> <ul style="list-style-type: none"> a) the reason for the release; b) the location of the release; c) the total volume of the release and which (if any) part of this volume was non-compliant; d) the total duration of the release and which (if any) part of this period was non-compliant; e) all water quality monitoring results (including all laboratory analyses); f) identification of any environmental harm as a result of the non-compliance; g) all calculations; and h) any other matters pertinent to the water release event.
Monitoring of water storage quality	
F20	<p>Water storages stated in Table 9 – <i>Water Storage Monitoring</i> which are associated with the release points must be monitored for the water quality characteristic specified in Table 11 – <i>Receiving Waters Contaminant Trigger Levels</i> and daily during releases.</p>

Table 9: Water Storage Monitoring

Water Storage Description	Associated Release point	Latitude (GDA94)	Longitude (GDA94)	Monitoring Location	Frequency of Monitoring
NE Pit (Mine Affected)	RP 1	-22.91709	148.76001	Any accessible safe point	Quarterly
Old NE Pit (Mine Affected)	RP 1	-22.92028	148.75456	Any accessible safe point	Quarterly
NW Pit (Mine Affected)	RP 1	-22.92805	148.76770	Any accessible safe point	Quarterly
Far South Highwall Dam (Mine Affected)	RP 3	-23.01136	148.81703	Any accessible safe point	Quarterly
Cockatoo Creek Sediment Dam 1	RP 2	-22.96953	148.80091	Any accessible safe point	Quarterly
Cockatoo Creek Sediment Dam 2	RP 2	-22.96643	148.80156	Any accessible safe point	Quarterly
Foxleigh Plains Pit Highwall Dam	TBC	To be constructed	To be constructed	Any accessible safe point	Quarterly
Eagles Nest Pit Highwall Dam	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Foxleigh Plains MIA Dam	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Overburden Catch Dam (Central South)	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Overburden Catch Dam (Central West)	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Overburden Catch Dam (Central East)	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly

Note: TBA is regarded as meaning that the release point will be provided within 6 Months of the water storage being constructed.

F21	In the event that water storages defined in Table 10 – <i>On-site Water Storage Contaminant Limits</i> exceed the contaminant limits defined in Table 10 – <i>On-site Water Storage Contaminant Limits</i> , the holder of the environmental authority must implement measures, where practicable, to prevent access to waters by all livestock.
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Table 10: On-site Water Storage Contaminant Limits

Quality Characteristic	Test Value	Contaminant Limit
pH (pH unit)	Range	Greater than 4, less than 9
EC (µS/cm)	Maximum	59701
Sulphate (mg/L)	Maximum	10001
Fluoride (mg/L)	Maximum	21
Aluminium (mg/L)	Maximum	51
Arsenic (mg/L)	Maximum	0.51
Cadmium (mg/L)	Maximum	0.011
Cobalt (mg/L)	Maximum	11
Copper (mg/L)	Maximum	11
Lead (mg/L)	Maximum	0.11
Nickel (mg/L)	Maximum	11
Zinc (mg/L)	Maximum	201

¹ Contaminant limit based on ANZECC & ARM CANZ (2000) stock water quality guidelines.

² Page 4.2-15 of ANZECC & ARM CANZ (2000) "Soil and animal health will not generally be affected by water with pH in the range of 4–9".

Note: Total measurements (unfiltered) must be taken and analysed.

Receiving environment monitoring and contaminant trigger levels

F22	The quality of the receiving waters must be monitored at the locations specified in Table 12 - <i>Receiving water upstream background sites and downstream monitoring points</i> for each quality characteristic and at the monitoring frequency stated in Table 11 - <i>Receiving waters contaminant trigger levels</i> .
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Table 11: Receiving Waters Contaminant Trigger Levels

Quality Characteristic	Trigger Level	Monitoring Frequency
pH	6.5 – 8.0	Daily during the release
Suspended solids (mg/L)	650	
Sulphate (SO ₄ ²⁻) (mg/L)	250 (Protection of drinking water environmental value)	
Sodium (mg/L)	To be supplied to the administering authority by 30 June 2016.	

Table 12: Receiving Water Upstream Background Sites and Downstream Monitoring Points

Monitoring Points and Receiving Waters Location Description	Latitude (Decimal degree, GDA94)	Longitude (Decimal degree, GDA94)
Upstream Background Monitoring Points		
Roper Creek US	-22.87623	148.6719
Cockatoo Creek US	-22.8904	148.7661
Carlo Creek US	-22.9241	148.8266
Parrot Creek DS(Downstream of Capcoal Mine and Upstream of Foxleigh Mine)	- 22.9218	148.6665
Downstream Monitoring Points		
Roper Creek DS2	-23.00984	148.84109
Roper Creek at Barwon Park	-23.0570	148.8881
Cockatoo Creek DS -	-23.0036	148.8326

Note: The data from background monitoring points must not be used where they are affected by releases from other mines.

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F23	<p>If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in Table 11 - <i>Receiving waters contaminant trigger levels</i> during a release event the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:</p> <ul style="list-style-type: none"> a) where the downstream result is the same or a lower value than the upstream value for the quality characteristic then no action is to be taken; or b) where the downstream results exceed the upstream results complete an investigation into the potential for environmental harm and provide a written report to the administering authority in the next annual return, outlining: <ul style="list-style-type: none"> i) details of the investigations carried out; and ii) actions taken to prevent environmental harm. <p><i>Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with F23(b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.</i></p>
F24	All determinations of water quality and biological monitoring must be performed by an appropriately qualified person.
Receiving environment monitoring program (REMP)	
F25	<p>The environmental authority holder must develop and implement a Receiving Environment Monitoring Program (REMP) to monitor, identify and describe any adverse impacts to surface water environmental values, quality and flows due to the authorised mining activity. This must include monitoring the effects of the mine on the receiving environment periodically (under natural flow conditions) and while mine affected water is being discharged from the site.</p> <p>For the purposes of the REMP, the receiving environment is the waters of Roper Creek and connected or surrounding waterways within 10km downstream of the release. The REMP should encompass any sensitive receiving waters or environmental values downstream of the authorised mining activity that will potentially be directly affected by an authorised release of mine affected water.</p>
F26	A REMP design document that addresses the requirements of the REMP must be prepared and made available to the administering authority upon request.
F27	A report outlining the findings of the REMP, including all monitoring results and interpretations must be prepared annually and made available on request to the administering authority. This must include an assessment of background reference water quality, the condition of downstream water quality compared against water quality objectives, and the suitability of current discharge limits to protect downstream environmental values.
Water reuse	
F28	Mine affected water may be piped or trucked or transferred by some other means that does not contravene the conditions of this environmental authority and deposited into artificial water storage structures, such as farm dams or tanks, or used directly at properties owned by the environmental authority holder or a third party (with the consent of the third party).

Annual Water Monitoring Reporting	
F29	<p>The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority in the specified format:</p> <ul style="list-style-type: none"> a) the date on which the sample was taken; b) the time at which the sample was taken; c) the monitoring point at which the sample was taken; d) the measured or estimated daily quantity of mine affected water released from all release points; e) the release flow rate at the time of sampling for each release point; f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority; and g) water quality monitoring data must be provided to the administering authority in the specified electronic format upon request.
Temporary interference with waterways	
F30	<p>Destroying native vegetation, excavating, or placing fill in a watercourse, lake or spring necessary for and associated with mining operations must be undertaken in accordance with Department of Natural Resources and Mines (or its successor) <i>Guideline - Activities in a Watercourse, Lake or Spring Associated with Mining Activities</i>.</p>
Water management plan	
F31	<p>A Water Management Plan must be developed by an appropriately qualified person and implemented.</p>
Stormwater and water sediment controls	
F32	<p>An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.</p>
F33	<p>Stormwater, other than mine affected water, is permitted to be released to waters from:</p> <ul style="list-style-type: none"> a) erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by condition F32; and b) water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with condition F31, for the purpose of ensuring water does not become mine affected water.
F34	<p>The maintenance and cleaning of any vehicles, plant or equipment must not be carried out in areas from which contaminants can be released into any receiving waters.</p>
Schedule H - Land	
Rehabilitation	
H1	<p>Land disturbed by mining must be rehabilitated in accordance with Appendix 2: <i>Rehabilitation Requirements</i>.</p>
H2	<p>Rehabilitation must commence progressively in accordance with the Plan of Operations.</p>

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Contaminated Land	
H3	Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.
H4	Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area the subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use under condition H1 .
H5	Minimise the potential for contamination of land by hazardous contaminants.
Infrastructure	
H6	All bunding for coal stockpiles must be a minimum of 30m from the lease boundary.
Biodiversity Offsets	
H7	<p>The holder of this environmental authority must provide an offset for impacts on applicable state significant biodiversity values, in accordance with <i>Queensland Biodiversity Offset Policy</i>. The biodiversity offset must be consistent with the requirements for an offset as identified in the Biodiversity Offset Strategy (as per condition H8) and must be provided:</p> <ul style="list-style-type: none"> a) prior to impacting on state significant biodiversity values; or b) where a land based offset is to be provided, within 12 months of the later of either of the following <ul style="list-style-type: none"> i) the date of issue of this environmental authority; or ii) the relevant stage identified in the Biodiversity Offset Strategy submitted under condition H8; or c) where an offset payment is to be provided, within 4 months of the later of either of the following <ul style="list-style-type: none"> i. the date of issue of this environmental authority; or ii. the relevant stage identified in the Biodiversity Offset Strategy submitted under conditions H8.
H8	A Biodiversity Offset Strategy must be developed and submitted to the administering authority within either 30 days, or a lesser period agreed to by the administering authority, prior to impacting on the applicable state significant biodiversity values.

Schedule J - Regulated Structures	
J1	<p>The hazard category of any structure must be assessed by a suitably qualified and experienced person:</p> <ul style="list-style-type: none"> a) in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635); and b) in any of the following situations: <ul style="list-style-type: none"> i) prior to the design and construction of the structure; or ii) prior to any change in its purpose or the nature of its stored contents; and c) in accordance with the <i>Manual for assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635).
J2	A hazard assessment report and certification must be prepared for any structure assessed and the report may include a hazard assessment for more than one structure.
J3	The holder must, on receipt of a hazard assessment report and certification, provide to the administering authority one paper copy and one electronic copy of the hazard assessment report and certification.
J4	Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635).
J5	The holder must take reasonable and practical measures so that each dam associated with the mining activity is designed, constructed, operated and maintained in accordance with accepted engineering standards and is fit for the purpose for which it is intended.
Design and construction of a regulated structure	
J6	All regulated structures excluding structures listed in condition J37 must be designed by, and constructed under the supervision of, a suitably qualified and experienced person in accordance with the requirements of the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635).
J7	<p>Construction of a regulated structure excluding structures listed in condition J37 is prohibited unless the holder has:</p> <ul style="list-style-type: none"> a) submitted a hazard category assessment report and certification to the administering authority; b) commissioned a suitably qualified and experienced person to prepare a design plan for the structure; and c) received the certification from a suitably qualified and experienced person for the design and design plan and the associated operating procedures in compliance with the relevant condition of this authority.
J8	Certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan, in the form set out in the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635).

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J9	<p>Regulated structures excluding structures listed in condition J37 must:</p> <ul style="list-style-type: none"> a) be designed and constructed in accordance with and conform to the requirements of the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i>; b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of: <ul style="list-style-type: none"> i) floodwaters from entering the regulated dam from any watercourse or drainage line; and ii) wall failure due to erosion by floodwaters arising from any watercourse or drainage line.
J10	<p>The design plan for a regulated structure must include, but is not limited to:</p> <ul style="list-style-type: none"> a) certification that the design plan: <ul style="list-style-type: none"> i) is in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i>, including subsidiary certifications if necessary; and ii) addresses the requirements in J10 (b) to (i) b) a design report which provides: <ul style="list-style-type: none"> i) a description of all the documents which constitute the design plan; ii) a statement of: <ul style="list-style-type: none"> 1) the applicable standards including engineering criteria, industry guidelines, relevant legislation and regulatory documents, relied upon in preparing the design plan; 2) all relevant facts and data used in preparing the design plan, including any efforts made to obtain necessary facts and data, and any limitations or assumptions to facts and data used in preparing the design plan; 3) the hazard category of the regulated structure; and 4) setting out the reasoning of the suitably qualified and experienced person who has certified the design plan, as to how the design plan provides the necessary required performance; iii) documentation of hydrological analyses and estimates required to determine all elements of the design including volumes and flow capacities; iv) detailed criteria for the design, operation, maintenance and decommissioning of the regulated structure, including any assumptions; and v) design, specification and operational rules for any related structures and systems used to prevent failure scenarios; c) Drawings showing the lines and dimensions, and locations of built structures and land forms associated with the regulated structure; d) Consideration of the interaction of the pit design with the levee or regulated dam design; e) An operational plan that includes: <ul style="list-style-type: none"> i) normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance); ii) contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure; f) A plan for the decommissioning and rehabilitation of the regulated structure at the end of its operational life; g) Details of reports on investigations and studies done in support of the design plan; h) Any other matter required by the suitably qualified and experienced person.

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J11	<p>Certification by the suitably qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure, and state that:</p> <ul style="list-style-type: none"> a) the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure; and b) construction of the regulated structure is in accordance with the design plan.
J12	<p>Where a regulated dam is to be managed as part of an integrated containment system and the DSA volume is to be shared across the integrated containment system, the design and operating rules for the system as a whole must be documented in a system design plan that is certified by a suitably qualified and experienced person.</p>
J13	<p>The system design plan must contain:</p> <ul style="list-style-type: none"> a) the design plans; b) the 'as constructed' plans; c) the operational rules for each individual regulated dam that forms part of the integrated system; d) the standards of serviceability and accessibility of water transfer equipment or structures; and e) the operational rules for the system as a whole.
Operation of a regulated structure	
J14	<p>Operation of a regulated structure is prohibited unless:</p> <ul style="list-style-type: none"> a) the holder has submitted to the administering authority: <ul style="list-style-type: none"> i) one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with condition J3; ii) a set of 'as constructed' drawings and specifications; iii) certification of those 'as constructed drawings and specifications' in accordance with condition J10; iv) where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, a copy of the certified system design plan; b) the requirements of this authority relating to the construction of the regulated structure have been met; and c) relevant details for the dam have been included in Table 14 - <i>Receiving Waters Contaminant Trigger Level</i>, Table 15 - <i>Hydraulic Performance of Regulated Dams</i> and Table 16 - <i>Basic details of regulated levees</i> of this authority.

Table 14: Location and Basic Details of Regulated Dams

Name of Regulated Dam	Hazard Category	Map ID	Tenure	Surface Area of Dam at Spillway (ha)	Max Volume of Dam at Spillway (ML)	Max Depth of Dam at Spillway (m)	Spillway Level (mAHD)	Use of Dam	Location	
									Easting (GDA 94 Zone 55)	Northing (GDA 94 Zone 55)
Tailings Dam 1	Significant (>25 ML & EC >4,000)	1	ML70171	10	3022	24	137	Contain CHPP fine rejects & Water	681605.3 681763.8 681395.3 681110.1	7460516.2 7460237.2 7460051.9 7460498.7
Tailings Dam 2	Significant (>25ML & EC >4,000)	2	ML70171	40	6162	723	137	Contain CHPP fine rejects & Water	681160.6 681413.8 681140.0 680922.8	7461291.3 7460562.5 7460535.8 7461126.6
CHPP Process Water Dam	Significant (>25ML & EC >4,000)	3	ML70171	1.6	30	2	To be determined by 30 November 2013	CHPP Process Water	680424.6 680435.9 680350.4 680350.4	7461486.9 7461317.1 7461323.3 7461459.1
CHPP Raw Water Dam	Significant, (>25ML & EC >4,000)	4	ML70171	1	40	2	To be determined by 30 November 2013	CHPP Process Water	680340.1 680339.1 680260.9 680252.6	7461457.1 7461336.6 7461358.3 7461416.92
CHPP ROM Sediment Dam	Significant (>25ML, EC >5,970 & pH >9.0)	5	ML70171	2.4	22	3	To be determined by 30 November 2013	CHPP ROM Stockpile Runoff	680361.8 680548.1 680291.8 680056.0 680178.5 680234.1 680088.9	7461012.4 7460899.1 7460876.5 7460993.8 7461340.8 7461301.6 7461009.3
NT Sediment Dam West	Significant, (>25ML, EC >4,000 & Sulphate >1,000)	6	ML70171	4.4	77	To be determined by 30 November 2013	To be determined by 30 November 2013	CHPP Rejects runoff and Process water from revegetated spoil	680585.1 680683.9 680756.0 680732.4	7460903.3 7460978.4 7460599.6 7460580.0
Cockatoo Creek ROM Sediment Dam 1	Significant, (>25ML & EC >4,000 & pH >9.0)	7	ML70309	2	30	5	To be determined by 30 November 2013	Cockatoo ROM Stockpile Runoff	684584.9 684721.9 684623.1 684522.7	7458892.6 7458806.5 7458553.3 7458728.5
Cockatoo Creek ROM Sediment Dam 2	Significant, (>25ML, EC >4,000, pH >9.0 & Sulphate >1000)	8	ML70309	3	50	5	To be determined by 30 November 2013	Cockatoo ROM Stockpile Runoff	684634.2 684755.3 684699.6 684631.1	7459241.4 7459179.3 7458878.2 7458986.6
Truckfill Dam South	Significant, (>25ML, EC >4,000 & pH >9.0)	9	ML70171	2.7	40	To be determined by 30 November 2013	To be determined by 30 November 2013	Overland flow and haul road runoff	681918.1 682031.8 682014.6 681883.1 681870.5	7461022.5 7460935.9 7460855.5 7460871.5 7460982.9

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Table 15: Hydraulic Performance of Regulated Dams

Mine Feature Name	Spillway Capacity AEP	Design Storage Allowance AEP	Mandatory Reporting Level AEP
Tailings (NT) Void *sum of Tailings Cell 1 and Cell 2 below	9184 ML	130.08 DSA	131.29 MRL
<i>Tailings Dam 1 (within Tailings NT Void)</i>	<i>3012ML</i>	<i>130.08 DSA</i>	<i>131.29 MRL</i>
<i>Tailings Dam 2 (within Tailings NT Void)</i>	<i>6162 ML</i>	<i>130.08 DSA</i>	<i>131.29 MRL</i>
CHPP Process Water Dam	30 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
CHPP Raw Water Dam	40 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
CHPP ROM Sediment Dam	22 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
NT Sediment Dam West	77 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
Cockatoo Creek ROM Sediment Dam 1	30 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
Cockatoo Creek ROM Sediment Dam 2	50 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
Truckfill Dam South	40 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013

Note: 'To be determined' refers to the required information being provided either within the transitional period outlined in condition J37 (3 years), or, as per the Levee Action Plan provided to the department on the 18 December 2012, whichever period ends first.

Table 16: Basic Details of Regulated Levees

Name of Regulated Levee	Design AEP	Design Flood Level (mAHD)	Minimum Levee Level (mAHD)	Schedule D Table 20 Location ID ¹	Use of Levee
Carlo Levee (new)	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
NE Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
NE Levee 2	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Roper Creek Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Cockatoo Creek Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Far South East Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
WC Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Cockatoo Creek Levee – Stage 1	1 in 1000 + 0.5m	Not constructed	Not constructed	Not constructed	Flood Protection
Cockatoo Creek Levee – Foxleigh Plains Pit	1 in 1000 + 0.5m	Not constructed	Not constructed	Not constructed	Flood Protection
Roper Creek Levee – Eagles Nest pit	1 in 1000 + 0.5m	Not constructed	Not constructed	Not constructed	Flood Protection

Note: 'To be determined' refers to the required information being provided either within the transitional period outlined in condition J37 (3 years), or, as per the Levee Action Plan provided to the department on the 18 December 2012, whichever period ends first.

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J15	Each regulated structure must be maintained and operated in a manner that is consistent with the current design plan, the current operational plan, and the associated certified 'as constructed' drawings for the duration of its operational life until decommissioned and rehabilitated.
J16	<p>The holder must take reasonable and practicable control measures to prevent the causing of harm to persons, livestock or wildlife through the construction and operation of a regulated structure. Reasonable and practicable control measures may include, but are not limited to:</p> <ul style="list-style-type: none"> a) the secure use of fencing, bunding or screening; and b) escape arrangements for trapped livestock and fauna.
Mandatory reporting level	
J17	The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.
J18	The holder must, as soon as practical and within forty-eight (48) hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.
J19	The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.
Annual inspection report	
J20	Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.
J21	<p>At each annual inspection, the condition and adequacy of all components of the regulated structure must be assessed:</p> <ul style="list-style-type: none"> a) against the most recent hazard assessment report and design plan (or system design plan); b) against recommendations contained in previous annual inspections reports; c) against recognised dam safety deficiency indicators; d) for changes in circumstances potentially leading to a change in hazard category; e) for conformance with the conditions of this authority; f) for conformance with the 'as constructed' drawings; g) for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after 31 May each year but prior to 1 November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems); h) for evidence of conformance with the current operational plan.
J22	A suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and including recommended actions to ensure the integrity of the regulated structure.
J23	The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> .

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J24	<p>The holder must:</p> <ul style="list-style-type: none"> a) upon receipt of the annual inspection report, consider the report and its recommendations and take action to ensure that the regulated structure will safely perform its intended function; and b) within twenty (20) business days of receipt of the annual inspection report, notify the administering authority in writing, of the recommendations of the inspection report and the actions being taken to ensure the integrity of each regulated structure.
J25	A copy of the annual inspection report must be provided to the administering authority upon request and within ten (10) business days.
Design storage allowance	
J26	On 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems).
J27	The holder must, as soon as possible and within forty-eight (48) hours of becoming aware that the regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.
J28	The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.
Performance review	
J29	The holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken prior to 1 July of each year.
J30	<p>The holder must take action to modify its water management or linked containment system so as to ensure that the regulated dam or linked containment system will perform in accordance with the requirements of this authority, for the subsequent November to May period.</p> <p><i>Note: Action may include seeking the necessary approvals for physical modification of a regulated dam.</i></p>
Transfer arrangements	
J31	The holder must provide a copy of any reports, documentation and certifications prepared under this authority, including but not limited to any Register of Regulated Structures, hazard assessment, design plan and other supporting documentation, to a new holder and the administering authority on transfer of this authority.

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Decommissioning and Rehabilitation	
J32	<p>Prior to the cessation of the environmentally relevant activity, each regulated structure must be decommissioned such that:</p> <ul style="list-style-type: none"> a) ongoing environmental harm is minimised by the regulated structure: <ul style="list-style-type: none"> i) becoming a safe site for humans and animals at the completion of rehabilitation; or ii) becoming a stable landform, that no longer contains flowable substances and minimises erosion impacts; or iii) not allowing for acid mine drainage; or iv) being approved or authorised under relevant legislation for a beneficial use; or v) being a void authorised by the administering authority to remain after decommissioning; and b) the regulated structure is compliant with all other relevant rehabilitation requirements of this authority.
Regulated structure location and performance	
J33	Each regulated structure named in <i>Table 14 – Location and Details of Regulated Dams</i> and <i>Table 16: Details of Regulated Levees</i> must be wholly located within the control points for that structure.
J34	Each regulated dam named in <i>Table 14 – Location and Details of Regulated Dams</i> must be consistent with the details noted in <i>Table 18</i> for that structure.
J35	Each regulated dam named in <i>Table 14 – Location and Details of Regulated Dams</i> , must meet the hydraulic performance criteria noted in <i>Table 15 - Hydraulic Performance of Regulated Dams</i> for that dam.
J36	Each regulated levee named in <i>Table 16 – Details of Regulated Levees</i> must be consistent with the details noted in the columns in <i>Table 16</i> relating to each levee.
Transitional Arrangements	
J37	<p>Each regulated structure specified below must, within a period of three years (the transitional period) from 1 November 2012, meet the performance requirements of conditions J34 and J35 or if a levee, condition J36:</p> <ul style="list-style-type: none"> a) Carlo Levee (new); b) NE Levee; c) NE Levee 2; d) Roper Creek Levee; e) Cockatoo Creek Levee; f) Far South East Levee; and g) WC Levee.
J38	During the transitional period, each regulated structure specified in condition J37 must comply with J34 and J35 or if a levee, condition J36 of this authority or the conditions set out in Schedule K of this authority.

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J39	<p>During the transitional period, for each declared regulated structure listed in condition J37, either:</p> <p>a) Certification must be provided, by a suitably qualified and experienced person, in the form set out in the Manual for Assessing Hazard Categories and Hydraulic Performance of Dams:</p> <ul style="list-style-type: none"> i) that the declared regulated structure is suitable for use as a regulated structure and can be transitioned to meet with either conditions J34 and J35 or if a levee, condition J36 of this authority; and ii) of any design plans for the modification of the declared regulated structure where modification is required to meet with either conditions J34 and J35 or if a levee, condition J36 of this authority; or <p>b) The declared regulated structure must be decommissioned.</p>
Schedule K - Regulated Structures (Dams and Levees) – Transitional Conditions	
K1	The hazard category of each dam must be determined by a suitably qualified and experienced person at least once in each two year period.
K2	Dams having a hazard category determined to be significant or high must be specifically authorised by an environmental authority.
K3	<p>Where the hazard category determined to be significant or high (i.e a regulated dam), the holder of the environmental authority must act immediately to ensure:</p> <ul style="list-style-type: none"> a) the administering authority is advised of the current location and details of that dam; and b) the dam meets the hydraulic performance required of the assessed hazard category within eighteen months of that assessment or a Transitional Environmental Program is put in place.
K4	The following regulated dams are to be located within the control points defined in <i>Table 17: Location of Regulated Dams (Transitional)</i> .

Table 17: Location of Regulated Dams (Transitional)

Name of Regulated Dam	Easting (GDA94)	Northing (GDA94)
Tailings Dam 1	681,240	7,460,410
	681,420	7,460,510
	681,730	7,460,200
	671,550	7,460,050
Tailings Dam 2	681,000	7,461,160
	681,170	7,461,280
	681,410	7,460,570
	681,220	7,460,470

K5	The following regulated dams are to be used in accordance with <i>Table 18: Specification of Regulated Dams (Transitional)</i> .
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Table 18: Specification of Regulated Dams (Transitional)

Name of Regulated Dam	Hazard Category	Maximum surface area of dam (ha)	Maximum volume of dam (m ³)	Maximum depth of dam (m)	Use of dam
Tailings Dam 1	To be determined	12.8	2,200,000	30	Permanent containment of tailings
Tailings Dam 2	To be determined	17.3	3,700,000	30	Permanent containment of tailings

K6	The following regulated dams are to be operated in accordance with <i>Table 19: Hydraulic Performance of Regulated Dams (Transitional)</i> .
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Table 19: Hydraulic Performance of Regulated Dams (Transitional)

Name of Regulated Dam	Spillway capacity	Design Storage Allowance	Mandatory Report Level
Tailings Dam 1	To be determined	To be determined	To be determined
Tailings Dam 2	To be determined	To be determined	To be determined

K7	Construction of a regulated dam must not be commenced unless: <ul style="list-style-type: none"> a) the holder of this environmental authority has submitted to the administering authority two copies of a design plan, together with the certification of a suitably qualified and experienced person that the design of the regulated dam will deliver the performance stated in the submitted design plan and that dam is compliant in all respects with this environmental authority; and b) at least twenty (20) business days has passed since the receipt of those documents, or the administering authority notifies the holder of this environmental authority that a design plan and certification has been submitted for that dam.
K8	When construction or modification of any regulated dam is complete, or within 12 months of a dam becoming a regulated dam by virtue of a hazard assessment, the holder of this environmental authority must submit to the administering authority two copies of a set of 'as constructed' drawings, together with the certification by a suitably qualified and experienced person that the dam 'as constructed' is fit for purpose, compliant in all respects with this environmental authority, and in accordance with accepted engineering standards.
K9	The holder of this environmental authority must ensure that there is always a current operational plan for each regulated dam, which may form part of other plans required by legislation.
K10	The holder of this environmental authority must notify the administering authority as soon as possible, but within 24 hours, of the level in any regulated dam reaching the mandatory reporting level (MRL); and must immediately act to prevent or minimise any actual or potential environmental harm.
K11	Each regulated dam must be inspected annually by a suitably qualified and experienced person.

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K12	At each annual inspection, the condition and adequacy of each regulated dam must be assessed for dam safety and against the necessary structural, geotechnical and hydraulic performance criteria.
K13	At each annual inspection, if mandatory reporting level is required, it must be determined and marked on each regulated dam.
K14	A final assessment of adequacy of available storage in each regulated dam must be based on a dam level observed within the month of October and result in an estimate of the level in that dam as at 1 November.
K15	For each annual inspection, two copies of a report of the condition and adequacy of each regulated dam, certified by the suitably qualified and experienced person and including any recommended actions to be taken to ensure the integrity of each regulated dam; must be provided to the administering authority by 1 December each year.
K16	The permit holder must, within one week of receipt of the annual inspection report, consider the report and its recommendations; and as soon as possible, but within one month of receipt of the annual inspection report, formulate and implement actions to ensure that each regulated dam safely performs its intended functions.
K17	On cessation of operation of any dam, the dam must be maintained so as to avoid environmental harm until that dam is decommissioned.
K18	Prior to the cessation of the environmentally relevant activity, each dam must be decommissioned such that it is either: <ul style="list-style-type: none"> a) becomes a stable landform, that no longer contains flowable substances; or b) is approved or authorised under relevant legislation for a beneficial use; or c) is a void authorised by the administering authority to remain after decommissioning; and d) is compliant with the rehabilitation requirements for this environmental authority.
K19	The holder of the environmental authority must ensure any activities associated with this environmental authority do not compromise the integrity of any levee, either within the operational land or adjacent to the operation land.
K20	The holder of this environmental authority must ensure that each new levee is designed, constructed, operated and maintained in accordance with accepted engineering standards and is fit for the purpose for which it is intended (see Figure 11- <i>Levee locations</i>).
K21	The hazard category of each levee must be assessed by a suitably qualified and experienced person prior to construction and at least once per year, based on documented evidence sufficient to define or confirm the current nature and extent of environmental consequences for potential failure of that levee.
K22	The Foxleigh mine flood protection must have a constructed protection height that is equal to or exceeds the predicted 1 in 1000 year AEP event flood level + 0.5m.
K23	Geomechanical cracking associated with the excavation of the low wall or any other mining activity is not permitted within a 30 metre buffer zone on the mine site side toe of the levee at Foxleigh mine.
K24	The holder of the environmental authority must ensure that the low wall at the mine side margin of the 30m buffer zone of the levee remains stable with a factor of safety of 1.5 or above based on an accepted stability analysis method.

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K25	<p>The holder of this environmental authority must not commence construction of any levee unless:</p> <ul style="list-style-type: none"> a) the holder has submitted to the administering authority two copies of a design plan, together with the certification of a suitably qualified and experienced person that the design of the levee is fit for the purpose for which the levee is intended, as stated in the hazard assessment accompanying the plan, and compliant in all respects with this environmental authority; and b) At least twenty (20) business days has passed since the receipt of those documents, or the administering authority has advised the holder that those documents are compliant with this condition.
K26	<p>When construction or modification of any levee is complete the holder of this environmental authority must submit to the administering authority two copies of a set of 'as constructed' drawings, together with the certification by a suitably qualified and experienced person that the levee 'as constructed' is fit for the purpose stated in the hazard assessment and the design plan, if the latter exists, and is compliant in all respects to this environmental authority.</p>
K27	<p>The holder of this environmental authority must ensure that there is always a current operational plan for each levee, which may form part of the plan of operations as required by legislation.</p>
K28	<p>The operation plan must cover all matters relevant to the operation and maintenance of the levee such as to maintain compliance in all respects with this environmental authority. For Foxleigh mine the operational plan must include:</p> <ul style="list-style-type: none"> a) A documented procedure for surveillance of the levee and its adjacent areas to detect and report to the administering authority in advance of and during mining operations any ground movement that will or may compromise the integrity of the levee; and b) Drawings describing the lines and dimensions of the phases of mining activities in the vicinity of the levee.
K29	<p>Levees shall be inspected and assessed by a suitably qualified and experienced person as soon as possible, if at any time unusual conditions are observed by the holder of this environmental authority or their agents.</p>
K30	<p>Remedial works identified as being required during inspections and assessments conducted under condition K29, must be notified in writing to the administering authority within ten (10) business days of the completion of the inspection, and commenced within thirty (30) business days unless otherwise agreed in writing by the administering authority.</p>
K31	<p>The holder of this environmental authority must arrange for each levee to be inspected annually by a suitably qualified and experienced person who must certify that the documented procedure for surveillance of the levee has been applied in accordance with any relevant procedures, that there has been no erosion, cracking or vertical or horizontal deformation that has impacted on the integrity of the levee, and that the levee has been maintained in accordance with the certified design plan.</p>
K32	<p>At each annual inspection the condition of each levee must be assessed in accordance with the certified design and current operational plan. Any recommended actions must be conveyed to the holder of this environmental authority in an annual inspection report.</p>
K33	<p>The holder of this environmental authority must take immediate action in response to the recommendations arising from an annual inspection of the condition and adequacy of the levee.</p>
K34	<p>For each annual inspection, two copies of a report certified by a suitably qualified and experienced person, including any recommended actions to be taken, must be provided to the administering authority by 1 December.</p>

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K35	The following levees are to be located along the control points defined in <i>Table 20: Location of Levees (Transitional)</i> .
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Table 20: Location of Levees (Transitional)

Name of Levee	Easting (GDA94)	Northing (GDA94)
Carlo Levee (new)	685,270	7,458,840
	686,650	7,456,610
	687,070	7,456,900
	686,120	7,459,540
NE Levee	679,580	7,464,000
	679,460	7,464,110
	680,260	7,465,030
	680,610	7,464,900
	681,350	7,464,830
NE Levee 2	681,890	7,461,920
	680,960	7,464,190
	681,600	7,463,020
Roper Creek Levee	681,890	7,461,920
	685,140	7,454,760
	685,000	7,454,610
	685,120	7,454,420
	685,200	7,454,230
	686,000	7,453,320
Cockatoo Creek Levee	686,160	7,453,480
	684,370	7,460,020
	684,300	7,459,710
	684,340	7,459,520
Far South East Levee	684,430	7,459,390
	685,250	7,455,330
	685,660	7,455,160
	685,750	7,455,050
	686,260	7,454,160
	686,340	7,453,940
	686,360	7,453,580
Carlo Creek Levee (old)	686,170	7,453,480
	685,270	7,458,830
	685,680	7,458,150
	685,970	7,458,300
	686,030	7,458,720
	686,100	7,458,960
WC Levee	686,150	7,459,360
	686,110	7,459,360
	683,620	7,457,300
	683,680	7,457,300
	683,940	7,457,170
	684,120	7,456,950
	684,530	7,456,520

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K36	<p>Prior to the cessation of the environmentally relevant activity, each levee must be decommissioned such that it:</p> <ul style="list-style-type: none">a) becomes part of a stable landform, andb) is compliant with the rehabilitation requirements for this environmental authority
Schedule L - Aboriginal Cultural Heritage	
L1	<p>No excavation, construction or other activity that may cause harm to Aboriginal cultural heritage may take place within the project site (comprising ML70171, ML70309, ML70310, ML70429, ML70430, ML70431 and ML70470) without the development and approval of a cultural heritage management plan for the project site under the <i>Aboriginal Cultural Heritage Act 2003</i>.</p>

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Definitions

Words and phrases used throughout this environmental authority are defined below. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority, the definitions in the *Environmental Protection Act 1994*, its regulations, subordinate legislation and environmental protection policies must be used.

‘acid rock drainage’ means any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture.

‘Administering authority’ means the Department of Environment and Heritage Protection or its successor.

‘airblast overpressure’ means energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dBL).

‘Annual exceedance probability’ or ‘AEP’ means the probability that at least one event in excess of a particular magnitude will occur in any given year.

‘appropriately qualified person’ means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

‘assessed’ and ‘assessment’ by a suitably qualified and experienced person in relation to a hazard assessment of a dam, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment:

- a) exactly what has been assessed and the precise nature of that determination;
- b) the relevant legislative, regulatory and technical criteria on which the assessment has been based;
- c) the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and
- d) the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.

‘associated works’ means in relation to a dam,

- a) operations of any kind and all things constructed, erected or installed for that dam; and
- b) any land used for those operations.

‘authority’ means an environmental authority.

‘background’, with reference to the water schedule means the average of samples taken prior to the commencement of mining from the same waterway that the current sample has been taken.

‘blasting’ means the use of explosive materials to fracture:

- a) rock, coal and other minerals for later recovery; or
- b) structural components or other items to facilitate removal from a site or for reuse.

‘certification’ means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by this manual, including design plans, ‘as constructed’ drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy Certification by RPEQs (ID: 1.4 (2A)).

‘certifying’, ‘certify’ or ‘certified’ have a corresponding meaning as ‘certification’.

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‘chemical’ means:

- a) an agricultural chemical product or veterinary chemical product within the meaning of the *Agricultural and Veterinary Chemicals Code Act 1994* (Commonwealth); or
- b) a dangerous good under the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Australian Transport Council; or
- c) a lead hazardous substance within the meaning of the Workplace Health and Safety Regulation 1997;
- d) a drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Ministers' Advisory Council and published by the Commonwealth; or
- e) any substance used as, or intended for use as:
 - i. a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product; or
 - ii. a surface active agent, including, for example, soap or related detergent; or
 - iii. a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide; or
 - iv. a fertiliser for agricultural, horticultural or garden use; or
 - v. a substance used for, or intended for use for mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or
 - vi. manufacture of plastic or synthetic rubber.

‘commercial place’ means a workplace used as an office or for business or commercial purposes, which is not part of the mining activity and does not include employees' accommodation or public roads.

‘construction’ or **‘constructed’** in relation to a regulated structure includes building a new regulated structure and lifting or otherwise modifying an existing regulated structure, but does not include investigations and testing necessary for the purpose of preparing a design plan.

‘dam’ means a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and **associated works**. A dam does not mean a fabricated or manufactured tank or container, designed and constructed to an Australian Standard that deals with strength and structural integrity of that tank or container.

‘dam crest volume’ means the volume of material (liquids and/or solids) that could be within the walls of a dam at any time when the upper level of that material is at the crest level of that dam. That is, the instantaneous maximum volume within the walls, without regard to flows entering or leaving (eg via spillway).

‘design storage allowance’ or **‘DSA’** means an available volume, estimated in accordance with the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)* published by the administering authority, must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an annual exceedance probability (AEP) specified in that manual.

‘designer’ for the purposes of a regulated dam, means the certifier of the design plan for the regulated dam.

‘disturbance’ of land includes:

- a) compacting, removing, covering, exposing or stockpiling of earth;
- b) removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion;
- c) carrying out mining within a watercourse, waterway, wetland or lake;
- d) the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls;
- e) temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be removed after the mining activity has ceased; or
- f) releasing of contaminants into the soil, or underlying geological strata.

However, the following areas are not included when calculating areas of ‘disturbance’:

- a) areas off lease (e.g. roads or tracks which provide access to the mining lease);
- b) areas previously disturbed which have achieved the rehabilitation outcomes;

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- c) by agreement with the administering authority, areas previously disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);
- d) areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be left by agreement with the landowner.
- e) disturbance that pre-existed the grant of the tenure.

‘EC’ means electrical conductivity.

‘effluent’ means treated waste water released from sewage treatment plants.

‘emergency action plan’ means documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam owners to annually update contact details that are part of the plan, and to comprehensively review the plan at least every five years.

‘Environmental authority’ means environmental authority granted in relation to an environmentally relevant activity under the *Environmental Protection Act 1994*.

‘Environmental authority holder’ means the holder of this environmental authority.

‘Flowable substance’ means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.

‘hazard’ means in relation to a dam as defined, means the potential for environmental harm resulting from the collapse or failure of the dam to perform its primary purpose of containing, diverting or controlling flowable substances.

‘hazard category’ means a category, either low significant or high, into which a dam is assessed as a result of the application of tables and other criteria in ‘Manual for Assessing Hazard Categories and Hydraulic Performance of Dams’.

‘Holder’ means any person who is the holder of, or is acting under, that environmental authority.

‘hydraulic performance’ means the capacity of a regulated dam to contain or safely pass flowable substances based on a probability (AEP) of performance failure specified for the relevant hazard category in the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)*.

‘infrastructure’ means water storage dams, levees, roads and tracks, buildings and other structures built for the purpose of the mining activity.

‘land’ in the ‘land schedule’ of this document means land excluding waters and the atmosphere, that is, the term has a different meaning from the term as defined in the *Environmental Protection Act 1994*. For the purposes of the *Acts Interpretation Act 1954*, it is expressly noted that the term ‘land’ in this environmental authority relates to physical land and not to interests in land.

‘land use’ –means the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

'leachate' means a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of at the operational land which contains soluble, suspended or miscible contaminants likely to have been derived from the said material.

'levee' means an embankment that only provides for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of **water** or **flowable substances** at any other times.

'licensed place' means the mining activities carried out at the mining tenements detailed in Table # (page #) of this environmental authority.

'Low hazard dam' means any dam that is not a high or significant hazard category as assessed using the Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635).

'm' means metres.

'mandatory reporting level' or 'MRL' means a warning and reporting level determined in accordance with the criteria in the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)* published by the administering authority.

'mine affected water':

- a) means the following types of water:
 - i) pit water, tailings dam water, processing plant water;
 - ii) water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2008 if it had not formed part of the mining activity;
 - iii) rainfall runoff which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to manage such runoff, provided that this water has not been mixed with pit water, tailings dam water, processing plant water or workshop water;
 - iv) groundwater which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated;
 - v) groundwater from the mine's dewatering activities;
 - vi) a mix of mine affected water (under any of paragraphs i)-v) and other water.
- b) does not include surface water runoff which, to the extent that it has been in contact with areas disturbed by mining activities that have not yet been completely rehabilitated, has only been in contact with:
 - i) land that has been rehabilitated to a stable landform and either capped or revegetated in accordance with the acceptance criteria set out in the environmental authority but only still awaiting maintenance and monitoring of the rehabilitation over a specified period of time to demonstrate rehabilitation success; or
 - ii) land that has partially been rehabilitated and monitoring demonstrates the relevant part of the landform with which the water has been in contact does not cause environmental harm to waters or groundwater, for example:
 - 1) areas that are been capped and have monitoring data demonstrating hazardous material adequately contained with the site;
 - 2) evidence provided through monitoring that the relevant surface water would have met the water quality parameters for mine affected water release limits in this environmental authority, if those parameters had been applicable to the surface water runoff; or
 - iii) both.

'measures' includes any measures to prevent or minimise environmental impacts of the mining activity such as bunds, silt fences, diversion drains, capping, and containment systems.

'modification or modifying' (see definition of 'construction')

'NATA' means National Association of Testing Authorities, Australia.

'natural flow' means the flow of water through waters caused by nature.

'non polluting' means having no adverse impacts upon the receiving environment.

'Operational plan' for a dam means a document that amongst other things sets out procedures and criteria to be used for operating a dam during a particular time period. The operational plan as defined herein may form part of a plan of operations or plan otherwise required in legislation.

'peak particle velocity (ppv)' means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mm/s).

'Probable Maximum Flood (PMF)' means the flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in a particular drainage area.

'protected area' means – a protected area under the *Nature Conservation Act 1992*; or

- a) a marine park under the *Marine Parks Act 1992*; or
- b) a World Heritage Area.

'receiving environment' in relation to an activity that causes or may cause environmental harm, means the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to):

- a) a watercourse;
- b) groundwater; and
- c) an area of land that is not specified in Schedule 1 – Figure 1 of this environmental authority.

'receiving waters' means the waters into which this environmental authority authorises releases of mine affected water.

'regulated dam' means any dam in the significant or high hazard category as assessed using the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)* published by the administering authority.

'rehabilitation' the process of reshaping and revegetating land to restore it to a stable landform

'release event' means a surface water discharge from mine affected water storages or contaminated areas on the licensed place.

'RL' means reduced level, relative to mean sea level as distinct from depths to water.

'representative' means a sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the mining activities.

'saline drainage' The movement of waters, contaminated with salts, as a result of the mining activity.

'sensitive place' means:

- a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- b) a motel, hotel or hostel; or
- c) an educational institution; or

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- d) a medical centre or hospital; or
- e) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or
- f) a public park or gardens.

Note: The definition of 'sensitive place' and 'commercial place' is based on Schedule 1 of EPP Noise. That is, a sensitive place is inside or outside on a dwelling, library & educational institution, childcare or kindergarten, school or playground, hospital, surgery or other medical institution, commercial & retail activity, protected area or an area identified under a conservation plan under *Nature Conservation Act 1992* as a critical habitat or an area of major interest, marine park under *Marine Parks Act 2004*, park or garden that is outside of the mining lease and open to the public for the use other than for sport or organised entertainment. A commercial place is inside or outside a commercial or retail activity.

A mining camp (i.e., accommodation and ancillary facilities for mine employees or contractors or both, associated with the mine the subject of the environmental authority) is not a sensitive place for that mine or mining project, whether or not the mining camp is located within a mining tenement that is part of the mining project the subject of the environmental authority. For example, the mining camp might be located on neighbouring land owned or leased by the same company as one of the holders of the environmental authority for the mining project, or a related company. Accommodation for mine employees or contractors is a sensitive place if the land is held by a mining company or related company, and if occupation is restricted to the employees, contractors and their families for the particular mine or mines which are held by the same company or a related company.

For example, a township (occupied by the mine employees, contractors and their families for multiple mines that are held by different companies) would be a sensitive place, even if part or all of the township is constructed on land owned by one or more of the companies.

'spillway' means a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the dam, normally under flood conditions or in anticipation of flood conditions.

'suitably qualified and experienced person' in relation to regulated structures means a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, and has demonstrated competency and relevant experience:

- a) for regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design.
- b) for regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments.

Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in geomechanics, hydraulic design or engineering hydrology.

'structure' in relation to regulated structures means dam or levee.

'system design plan' means a plan that manages an integrated containment system that shares the required DSA volume across the integrated containment system.

'the Act' means the *Environmental Protection Act 1994*.

'µS/cm' means micro siemens per centimetre.

'Void' means any constructed, open excavation in the ground.

'watercourse' has the same meaning given in the *Water Act 2000*.

'water quality' means the chemical, physical and biological condition of water.

'waters' includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), storm water channel, storm water drain, and groundwater and any part thereof.

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‘Water year’ means the 12-month period from 1 July to 30 June.

‘Wet season’ means the time of year, covering one or more months, when most of the average annual rainfall in a region occurs. For the purposes of DSA determination this time of year is deemed to extend from 1 November in one year to 31 May in the following year inclusive.

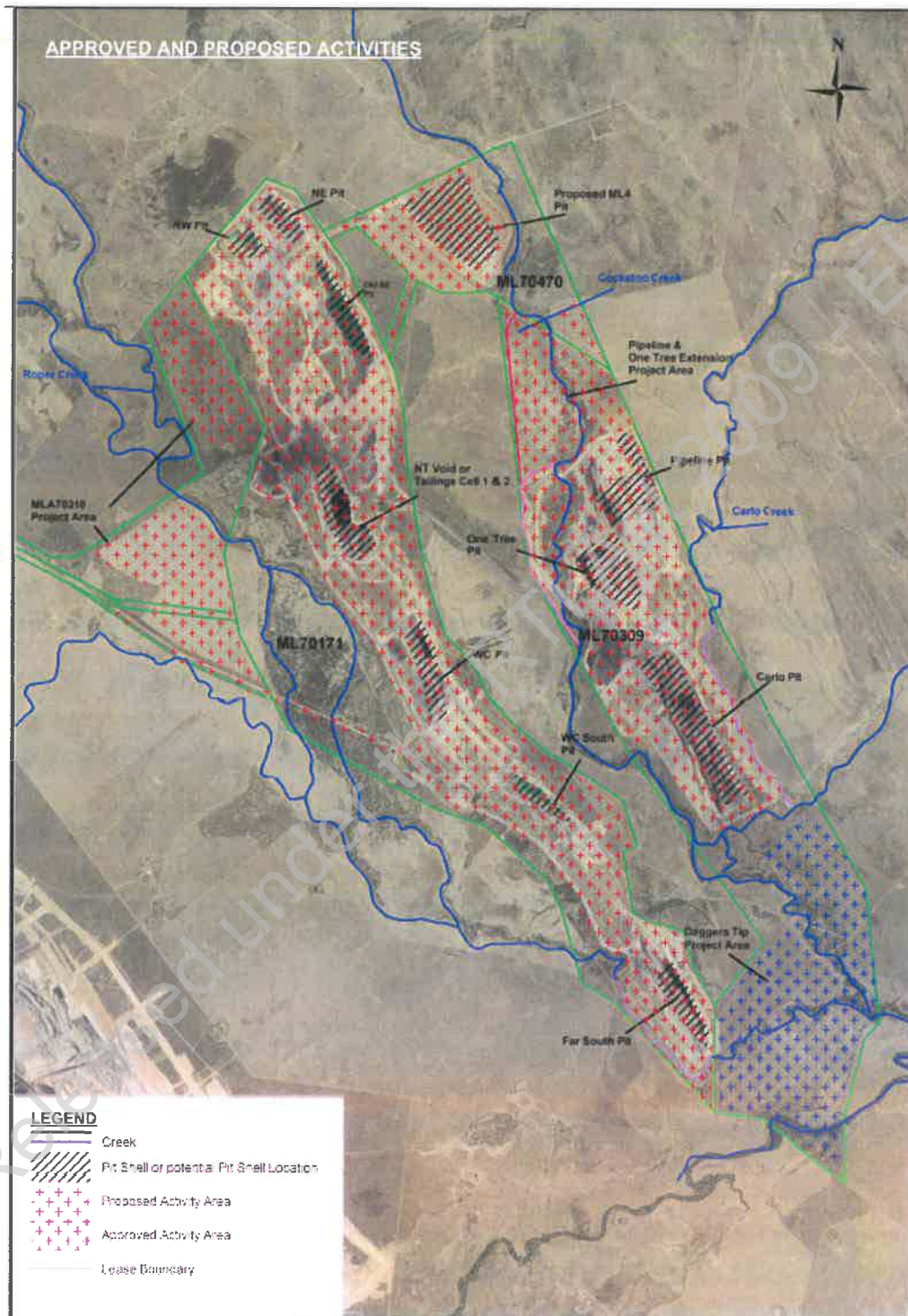
END OF DEFINITIONS

Released under the RTI Act 2009 - EHP

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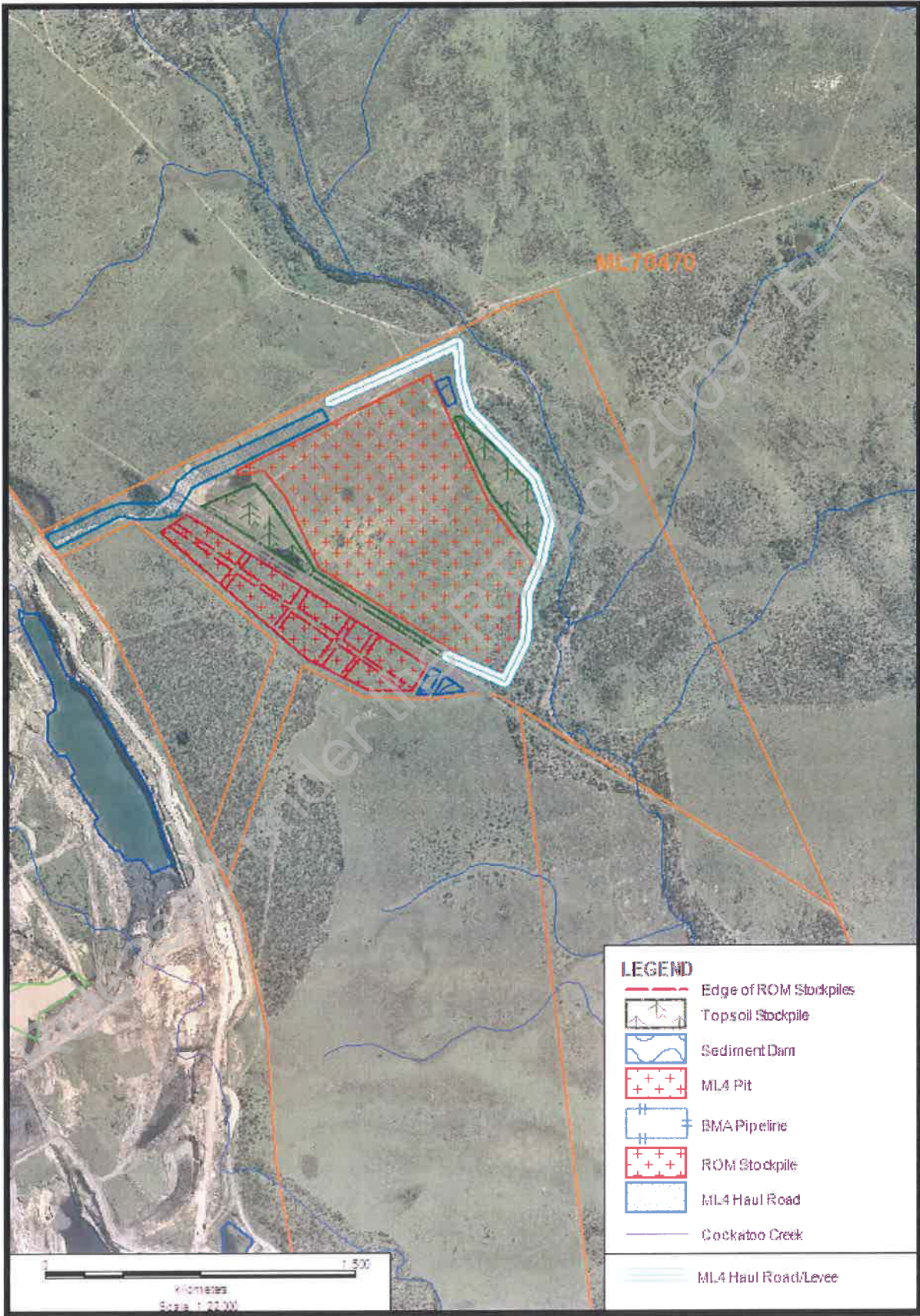
Appendix 1

Figure 1 – Approved and proposed mining activities for ML70171, ML70309 and ML70310



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Figure 2 – Proposed mining activities ML70470



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Figure 3 – Existing and proposed mining activities ML70310

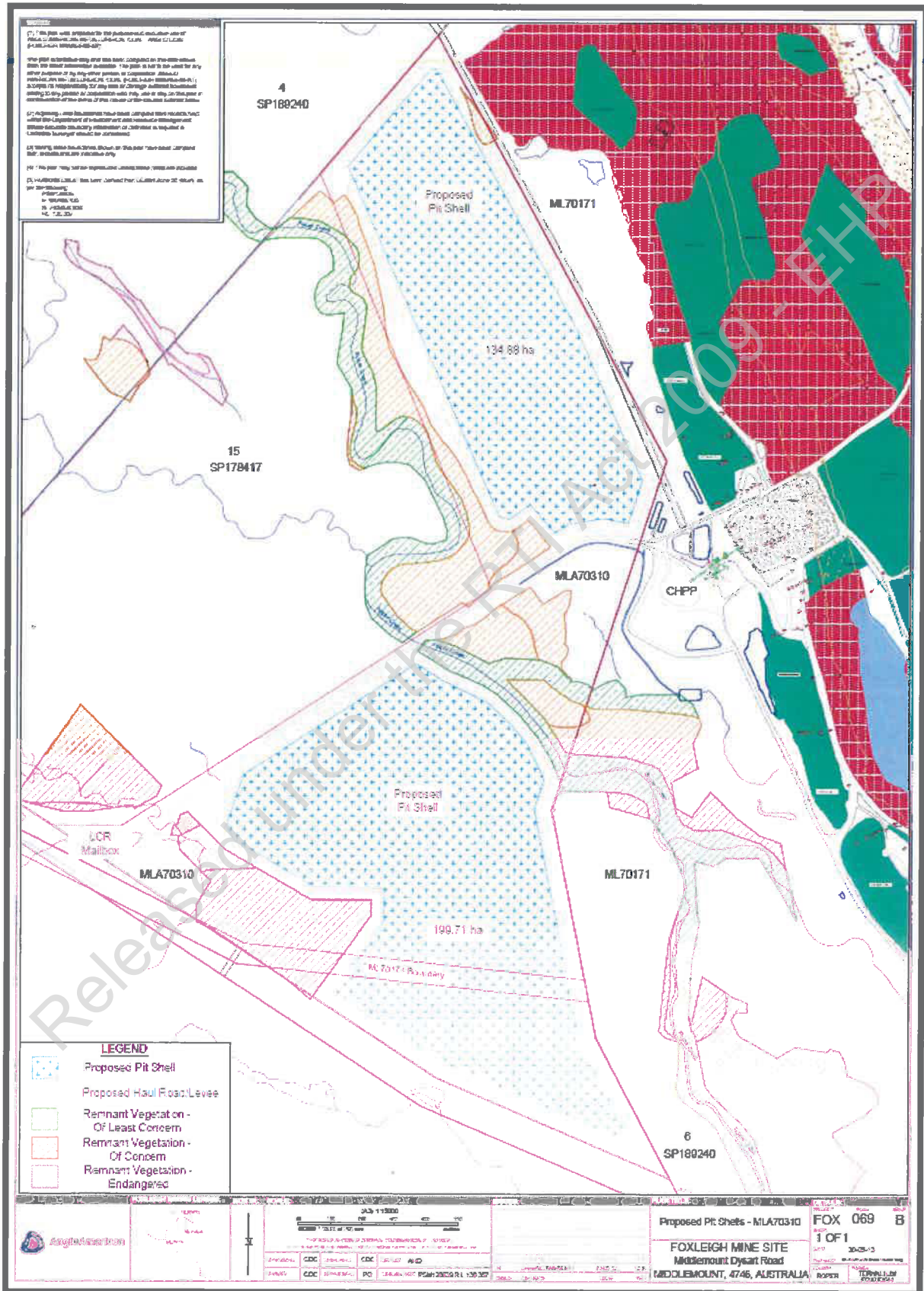


Figure 4 – Proposed mining activities and project infrastructure layout – mine area ML70429, ML70430, ML70431 (Foxleigh Plains)

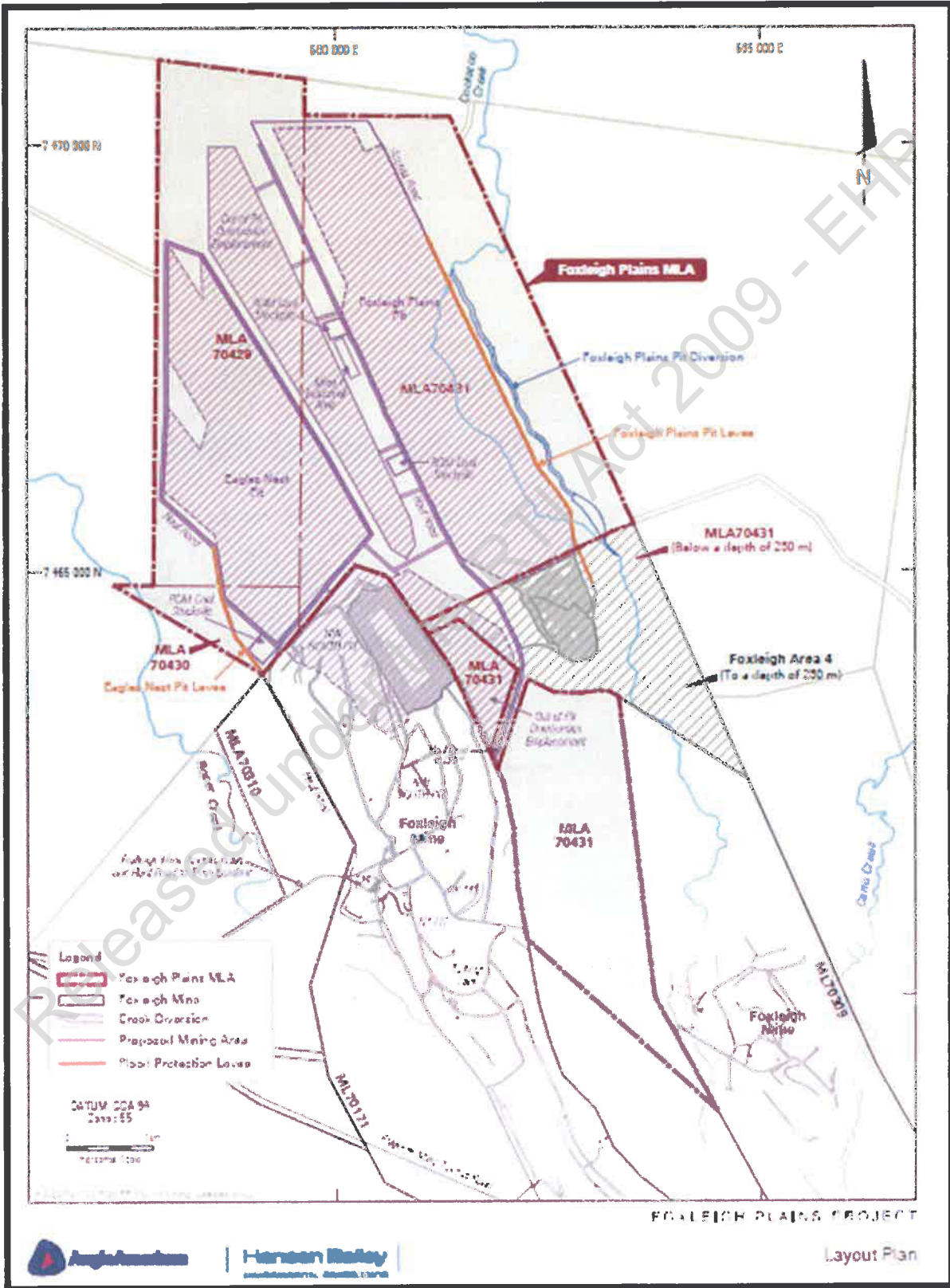
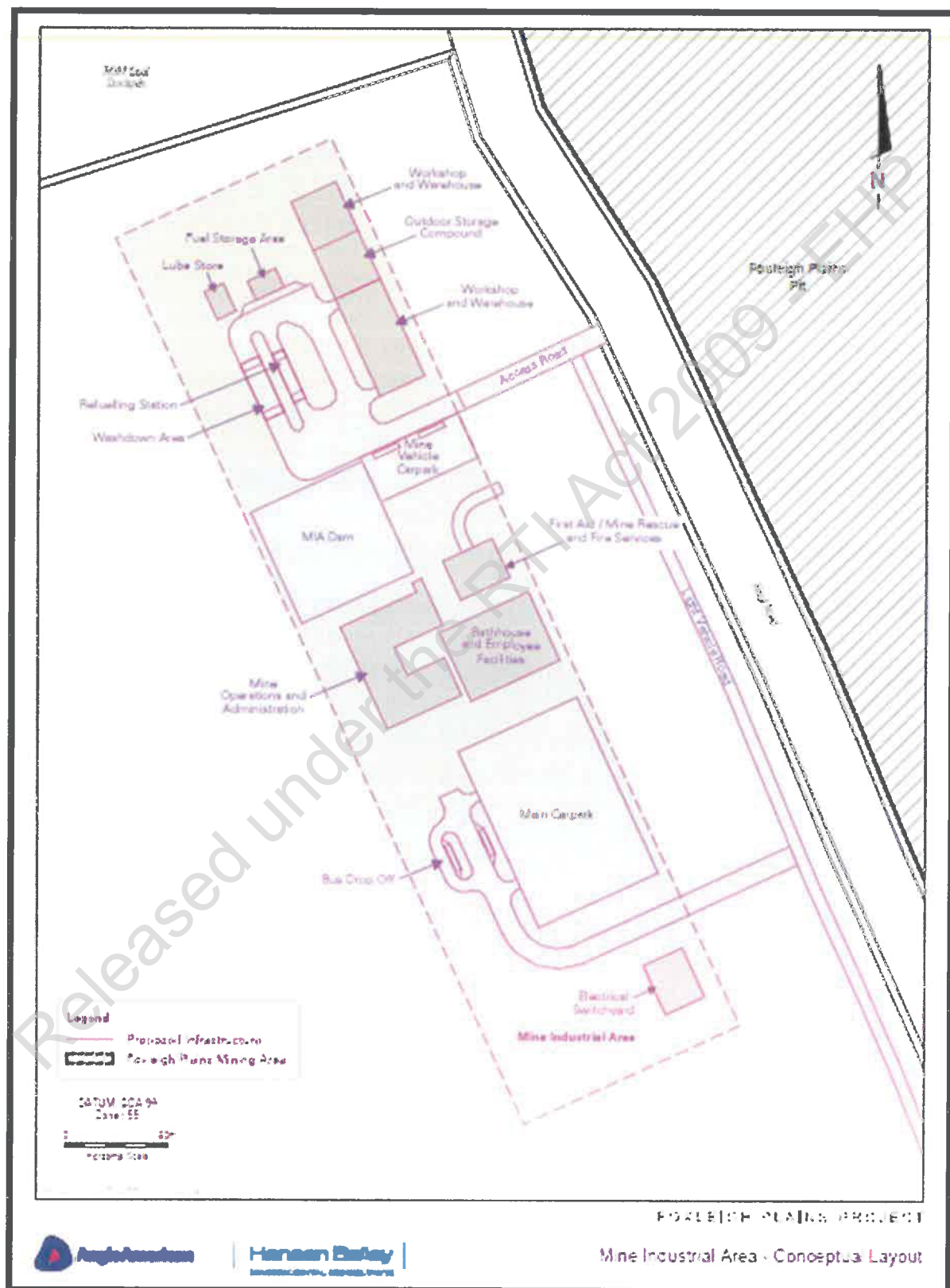
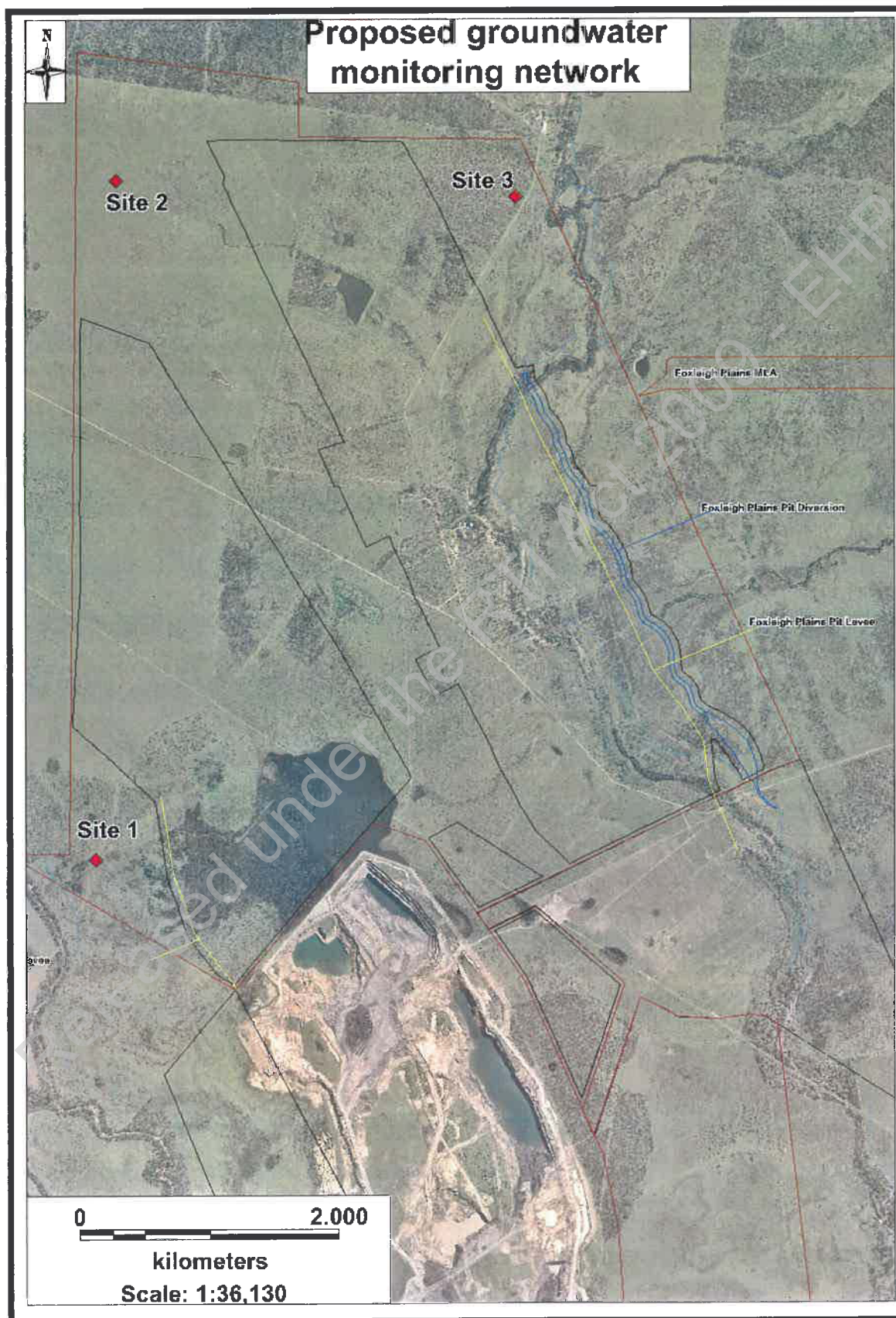


Figure 5 – Proposed Project infrastructure layout – support infrastructure, Mine industrial area adjacent Foxleigh Plains Pit area



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Figure 6 – Groundwater Monitoring Locations (Bores)



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Figure 7 – Release Point and Monitoring Point Locations

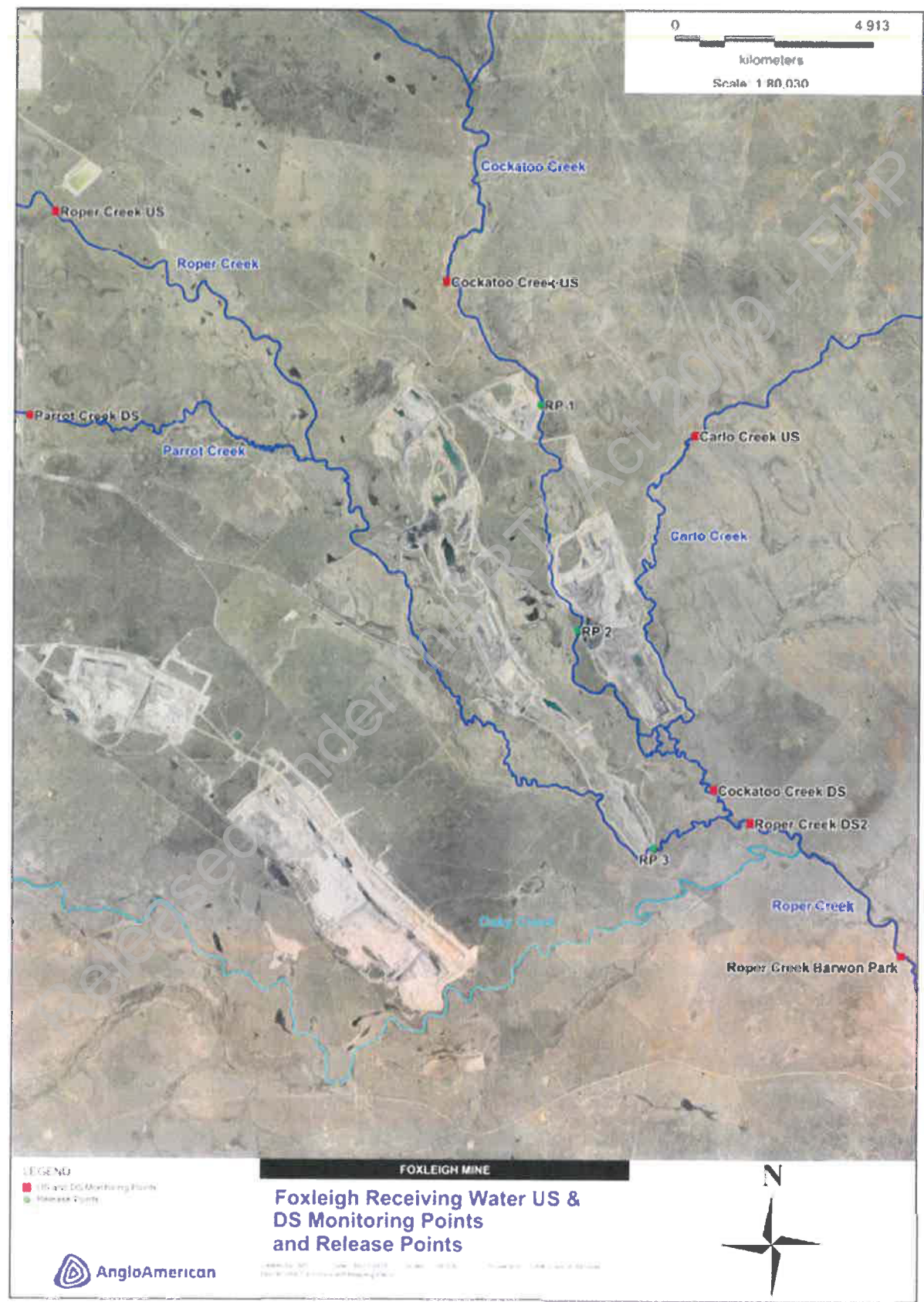
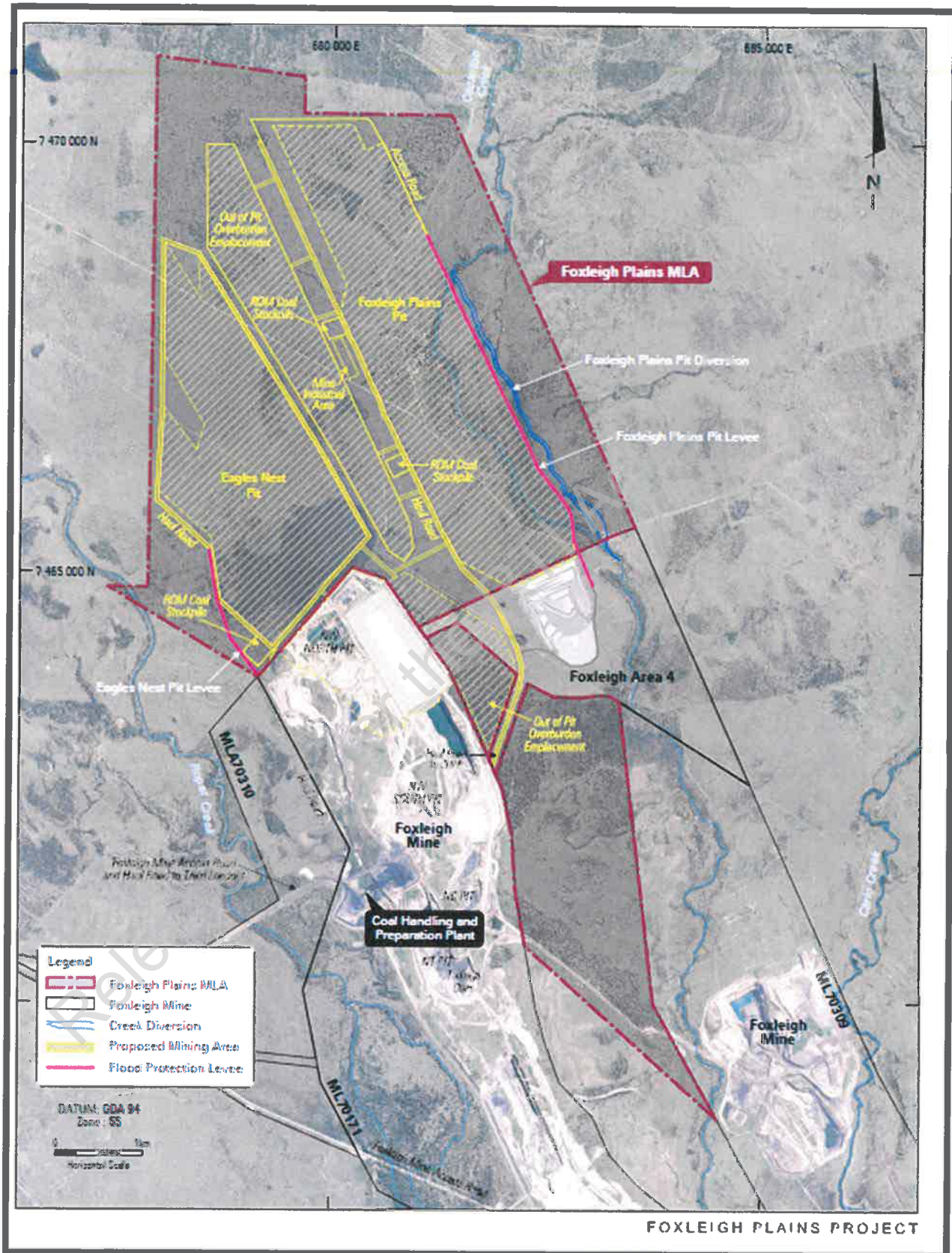


Figure 8 – Location of existing and proposed levees on ML70309, ML70171, ML70470, MLA70310



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Figure 9 – Proposed levee locations on ML70429, ML70430 and ML70431.



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Figure 10 – Location of regulated dams (Note: map identification numbers are for Table 14)

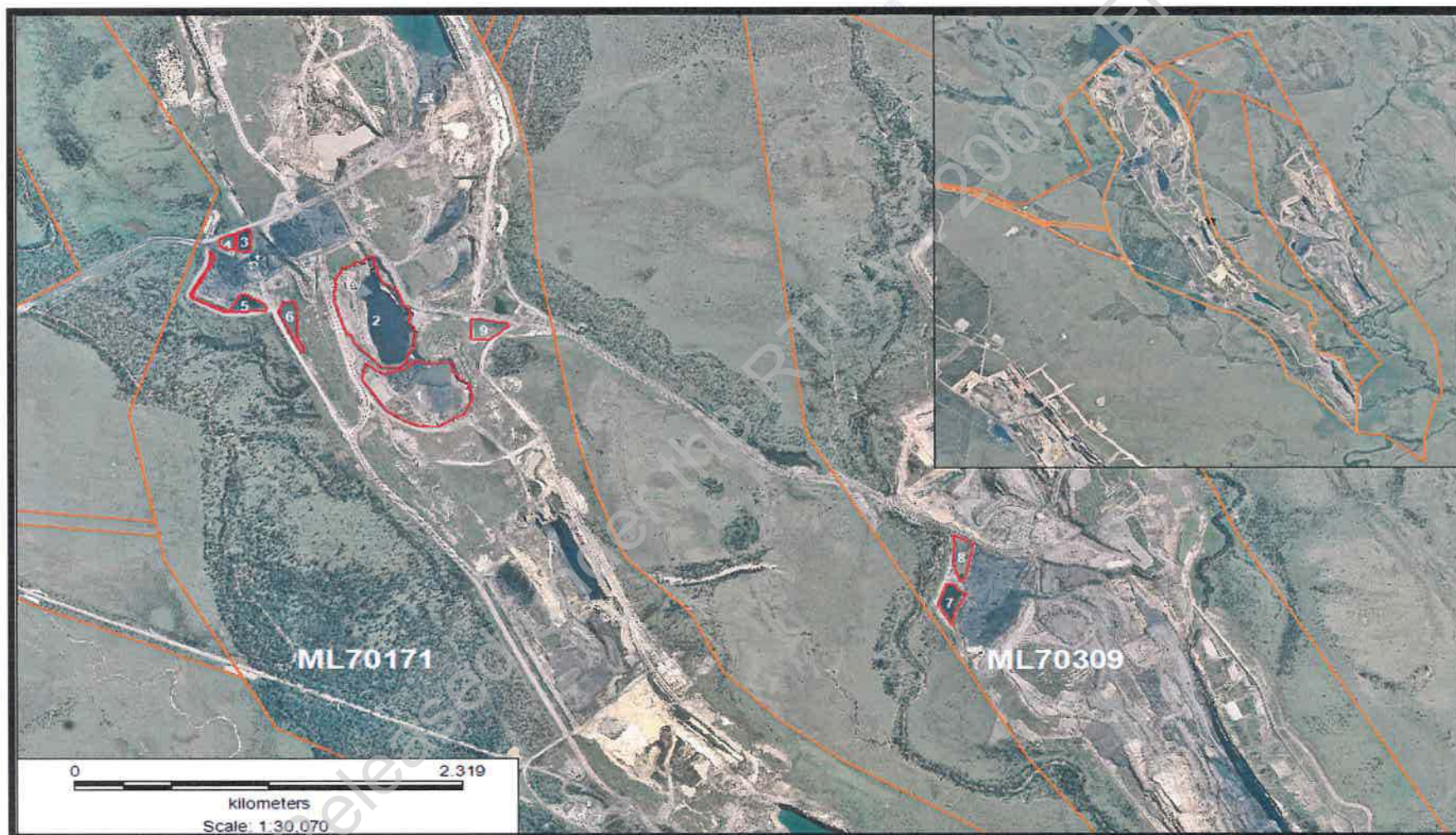
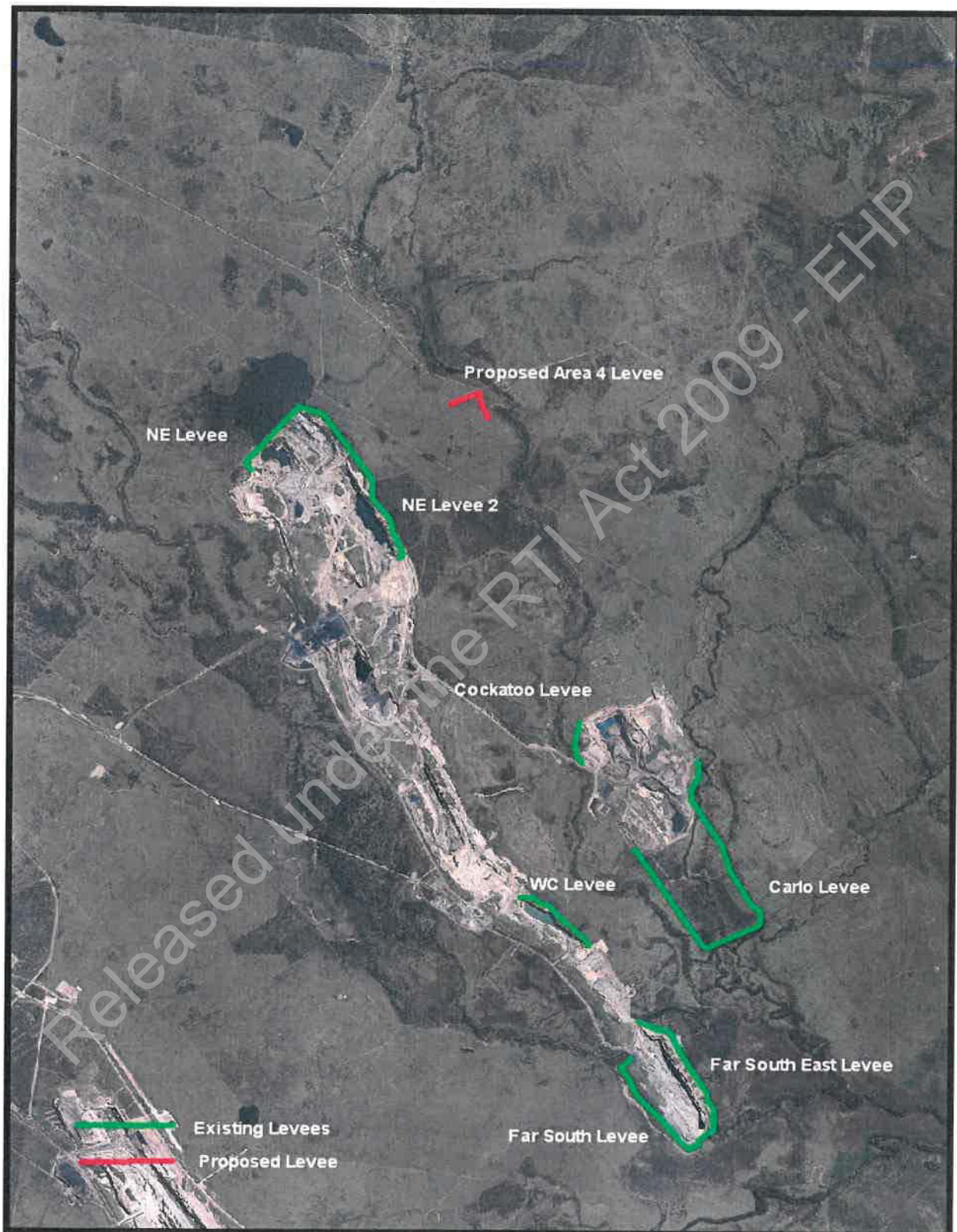


Figure 11: Appendix 5 of previous EA - Existing and Proposed Levee Locations (Transitional)



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Appendix 2:

Rehabilitation Requirements

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
All mine surface features	<p>Infrastructure areas:</p> <ul style="list-style-type: none"> Raw and mine-affected water storage dams Roads and tracks ROM stockpile areas MIA (workshops and associated laydown, hardstand, fuel storage, washdown bay areas) CHPP Administration offices Explosive magazine Power reticulation network Fencing <p>Mining areas:</p> <ul style="list-style-type: none"> Residual Voids Spoil emplacement areas Mine residue storage areas 	<ol style="list-style-type: none"> Safe for humans and wildlife Non polluting Stable Able to sustain agreed post-mining land use 	<p>To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.</p> <p>Where agricultural land use applies, to return self-sustaining grazing land that is sustainable and economically viable.</p>	<p>Infrastructure removed as required and revegetated to a light grazing post mining land use.</p> <p>Potential for erosion of waste dump slopes is reduced by correct spoil placement and functional drainage.</p> <p>Adequate access areas used for agriculture that can be maintained into the future. Suitable vegetation is planted for agricultural uses. Adequate shade and water is available for stock use. Topsoil spread minimum 15cm depth, with no bare areas greater than 100m². Ripping to a minimum depth of 50cm at 1m spacing. Revegetation seed mix complies with final agreed land use.</p>	<p>Any infrastructure that is to remain post closure, shall have a written agreement between the post mining land owner and Anglo Coal (Foxleigh Management) Pty Ltd.</p> <p>Surface water run off quality is similar to the water quality of the surrounding catchment and within the EA conditions.</p> <p>Infrastructure areas land reshaped to slope range <10%. Adequate erosion control structures have been installed, with no sites of significant wind or gully erosion that will cause harm to fauna.</p> <p>Vegetation established across areas with a suitable species mix for the agreed final land use. Areas where agricultural land use applies, have pasture grass species present and provide stock with nutritional requirements, as well as being capable of setting viable seed and flowering similar to reference sites in the Middlemount area and/or with a land suitability class (grazing) of 4.</p>

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Permit
Environmental authority EPML00744813 – Foxleigh Mine

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
Mining areas	Residual voids	<ol style="list-style-type: none"> 1. Safe for humans and wildlife 2. Non polluting 3. Stable 4. Able to sustain agreed post-mining land use 	Residual void water bodies are able to be accessed by wildlife, used for water supplies and/or used as recreational facilities according to the final land use for that area.	<p>Stable highwalls left standing at the slope created by the final blast and a diversion bank provided at the top for safety and drainage.</p> <p>Any exposed coal seam covered with material to minimise highly saline water leaching into void water stores.</p> <p>Drains constructed to redirect surface water from flowing over the highwall or lowwall.</p> <p>Geotechnical stability and risk assessments conducted to determine the appropriate treatments prior to closure.</p>	<p>Final voids reshaped to a slope range of <70% for competent material or <45% for non-competent material or as stated in an appropriate risk assessment conducted by a suitably qualified person.</p> <p>Drainage structures along highwalls and lowwalls have been revegetated, with water drainage that flows naturally without pooling or flooding.</p>
	Spoil emplacement areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	<p>Outer spoil slopes reshaped to 17%. Internally draining spoil slopes reshaped to <45% with appropriate spoil placement, functional drainage and erosion control structures to reduce slope erosion potential.</p> <p>Final rehabilitated spoil dumps will be hills with a mix of pasture and native species.</p> <p>Topsoil spread with no bare areas greater than 100m².</p>	<p>Spoil top of dump (out of pit and in-pit) surfaces have been constructed to a slope range < 10%.</p> <p>Side slopes have been constructed to a slope range < 17%.</p> <p>Outer spoil slopes are no longer than 100m without being broken by a bench.</p>
	Mineral residue storage areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	<p>Tailings material will be physically and chemically assessed to determine the appropriate capping required.</p> <p>Mineral residue material capped with coarse reject and/or spoil and revegetated with a mix of pasture and native species.</p>	<p>Mineral residue material capped with a suitable vegetation species mix established to meet the agreed final land use.</p> <p>Surface water run off quality is similar to the water quality of the surrounding catchment and within</p>

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Environmental authority EPML00744813 – Foxleigh Mine

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
				Topsoil spread with no bare areas greater than 100m ² .	the EA conditions. Coarse reject landforms shaped to a slope range <10%.
Watercourse diversions	Creek diversions and levees	<ol style="list-style-type: none"> 1. Safe for humans and wildlife 2. Non polluting 3. Stable 4. Able to sustain agreed post-mining land use 	Creek diversions that operate in equilibrium with adjoining reaches of the watercourse.	<p>Creek diversion must incorporate similar geomorphic and riparian vegetation features to those of the pre-existing watercourse and adjoining landscape.</p> <p>Surface water qualities of flow events through the diversion are similar to the water quality of the surrounding catchment and within the EA conditions.</p> <p>Remediation of the disturbed area within the watercourse diversion and adjoining floodplain is stable with evidence of vegetation achieving a trajectory of self-sustainability.</p> <p>Topsoil spread with no bare areas greater than 100m². Revegetation seed mix complies with final agreed land use.</p>	TBA when final detailed design for cockatoo creek including detailed revegetation plan have been approved by the relevant Administering Authority.
All mine surface features	Infrastructure areas: <ul style="list-style-type: none"> • Raw and mine-affected water storage dams • Roads and tracks • ROM stockpile areas • MIA (workshops and associated 	<ol style="list-style-type: none"> 1. Safe for humans and wildlife 2. Non polluting 3. Stable 4. Able to sustain agreed post-mining land use 	<p>To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.</p> <p>Where agricultural land use</p>	<p>Infrastructure removed as required and revegetated to a light grazing post mining land use.</p> <p>Potential for erosion of waste dump slopes is reduced by correct spoil placement and functional drainage.</p>	<p>Any infrastructure that is to remain post closure, shall have a written agreement between the post mining land owner and Anglo Coal (Foxleigh Management) Pty Ltd.</p> <p>Surface water run off quality is similar to the water quality of the surrounding catchment and within</p>

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Permit
Environmental authority EPML00744813 – Foxleigh Mine

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
	laydown, hardstand, fuel storage, washdown bay areas) <ul style="list-style-type: none"> CHPP Administration offices Explosive magazine Power reticulation network Fencing Mining areas: <ul style="list-style-type: none"> Residual Voids Spoil emplacement areas Mine residue storage areas 		applies, to return self-sustaining grazing land that is sustainable and economically viable.	Adequate access areas used for agriculture that can be maintained into the future. Suitable vegetation is planted for agricultural uses. Adequate shade and water is available for stock use. Topsoil spread minimum 15cm depth, with no bare areas greater than 100m ² . Ripping to a minimum depth of 50cm at 1m spacing. Revegetation seed mix complies with final agreed land use.	the EA conditions. Infrastructure areas land reshaped to slope range <10%. Adequate erosion control structures have been installed, with no sites of significant wind or gully erosion that will cause harm to fauna. Vegetation established across areas with a suitable species mix for the agreed final land use. Areas where agricultural land use applies, have pasture grass species present and provide stock with nutritional requirements, as well as being capable of setting viable seed and flowering similar to reference sites in the Middlemount area and/or with a land suitability class (grazing) of 4.
Mining areas	Residual voids	1. Safe for humans and wildlife 2. Non polluting 3. Stable 4. Able to sustain agreed post-mining land use	Residual void water bodies are able to be accessed by wildlife, used for water supplies and/or used as recreational facilities according to the final land use for that area.	Stable highwalls left standing at the slope created by the final blast and a diversion bank provided at the top for safety and drainage. Any exposed coal seam covered with material to minimise highly saline water leaching into void water stores. Drains constructed to redirect surface water from flowing over the highwall or lowwall. Geotechnical stability and risk assessments conducted to determine the appropriate treatments prior to closure.	Final voids reshaped to a slope range of <70% for competent material or <45% for non-competent material or as stated as stated in an appropriate risk assessment conducted by a suitably qualified person. Drainage structures along highwalls and lowwalls have been revegetated, with water drainage that flows naturally without pooling or flooding.

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Permit
Environmental authority EPML00744813 – Foxleigh Mine

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
	Spoil emplacement areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	Outer spoil slopes reshaped to 17%. Internally draining spoil slopes reshaped to <45% with appropriate spoil placement, functional drainage and erosion control structures to reduce slope erosion potential. Final rehabilitated spoil dumps will be hills with a mix of pasture and native species. Topsoil spread with no bare areas greater than 100m ² .	Spoil top of dump (out of pit and in-pit) surfaces have been constructed to a slope range < 10%. Side slopes have been constructed to a slope range < 17%. Outer spoil slopes are no longer than 100m without being broken by a bench.
	Mineral residue storage areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	Tailings material will be physically and chemically assessed to determine the appropriate capping required. Mineral residue material capped with coarse reject and/or spoil and revegetated with a mix of pasture and native species. Topsoil spread with no bare areas greater than 100m ² .	Mineral residue material capped with a suitable vegetation species mix established to meet the agreed final land use. Surface water run off quality is similar to the water quality of the surrounding catchment and within the EA conditions. Coarse reject landforms shaped to a slope range <10%.
Watercourse diversions	Creek diversions and levees	5. Safe for humans and wildlife 6. Non polluting 7. Stable 8. Able to sustain agreed post-mining land use	Creek diversions that operate in equilibrium with adjoining reaches of the watercourse.	Creek diversion must incorporate similar geomorphic and riparian vegetation features to those of the pre-existing watercourse and adjoining landscape. Surface water qualities of flow events through the diversion are similar to the water quality of the surrounding catchment and	TBA when final detailed design for cockatoo creek including detailed revegetation plan have been approved by the relevant Administering Authority.

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Permit
Environmental authority EPML00744813 – Foxleigh Mine

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
				<p>within the EA conditions.</p> <p>Remediation of the disturbed area within the watercourse diversion and adjoining floodplain is stable with evidence of vegetation achieving a trajectory of self-sustainability.</p> <p>Topsoil spread with no bare areas greater than 100m². Revegetation seed mix complies with final agreed land use.</p>	

END OF PERMIT

Environmental authority EPML00744813 – Foxleigh Mine

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Permit¹ number: EPML00744813

Takes Effect From: 2 February 2016

Anniversary date: 21 September

Environmental authority holder(s)

Name	Registered address
CAML Resources Pty Ltd	Ground Floor 201 Charlotte Street Brisbane QLD 4000
Nippon Steel & Sumitomo Metal Australia Pty Ltd	
Anglo Coal (Foxleigh) Pty Ltd	

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
Environmental Protection Regulation 2008, Schedule 2A: ERA13 Mining black coal	
Environmental Protection Regulation 2008, Schedule 2: ERA 31 Mineral processing, Threshold 2 – Processing, in a year, the following quantities of mineral products, other than coke – (b) more than 100,000t. ERA 8 Chemical storage, Threshold 3 – Storing more than 500m3 total quantity of chemicals of Class 1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection 1(c). ERA 15 Fuel burning – Using fuel burning equipment that is capable of burning at least 500kg of fuel in an hour. ERA 16 Extractive and screening activities, Threshold 3 – Screening, in a year, the following quantity of material – (c) more than 1,000,000t. ERA 33 Crushing, milling grinding or screening – Crushing, grinding, milling or screening more than 5,000t of material in a year.	ML70171 ML70309 ML70310 ML70429 ML70430 ML70431 ML70470

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

ERA 56 Regulated waste storage – Receiving and storing regulated waste.	
ERA 60 Waste disposal, Threshold 1 – Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) – (a) less than 50,000t.	

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental authority as to the scale, intensity or manner of carrying out an ERA, then the conditions prevail to the extent of the inconsistency.

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within twenty-two (22) business days after becoming so aware, give written notice to the chief executive.

	sch4p4(6) Personal information	
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Signature

2 February 2016

Date

Jacob Toe
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Business Centre (Coal)
Department of Environment and Heritage
Protection
PO Box 3028
EMERALD QLD 4720
Phone: (07) 4987 9320
Email: CRMining@ehp.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

Schedule A - General	
Condition number	Condition
A1	This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.
A2	In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with Schedule A —Figures 1, 2, 3, 4 and 5 (Existing and proposed mining activities) in Appendix 1.
Maintenance of Measures, Plant and Equipment	
A3	The holder of this environmental authority must: <ol style="list-style-type: none"> a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; b) maintain such measures, plant and equipment in a proper and efficient condition; c) operate such measures, plant and equipment in a proper and efficient manner; and d) ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.
Monitoring	
A4	Upon request from the administering authority, copies of monitoring records and reports should be made available and provided to the administering authority's nominated office within 10 business days or an alternative timeframe agreed between the administering authority and the holder.
A5	Any management or monitoring plans, systems or programs required to be developed and implemented by a condition of this environmental authority should be reviewed for effectiveness in minimising the likelihood of environmental harm on an annual basis, and amended promptly if required, unless a particular review date and amendment program is specified in the plan, system or program.

A6	Except where specified otherwise in another condition of this authority, all monitoring records or reports required by this environmental authority must be kept for a period of not less than 5 years.
Financial assurance	
A7	The activity must not be carried out until the environmental authority holder has given financial assurance in accordance with the most recent edition of the administering authority's: <i>Guideline—Calculating financial assurance for mining projects</i> , to the administering authority as security for compliance with this environmental authority and any costs or expenses, or likely costs or expenses, mentioned in section 298 of the <i>EP Act</i> .
A8	The amount of financial assurance must be reviewed by the holder of this environmental authority when a plan of operations is amended or replaced or the authority is amended.
Risk management	
A9	The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the <i>Standard for Risk Management (ISO31000:2009)</i> , or the latest edition of an Australian standard for risk management, to the extent relevant to environmental management, by three (3) months from the issue of this EA.
Notification of emergencies, incidents and exceptions	
A10	The holder of this environmental authority must notify the administering authority by written notification within 24 hours, after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority.
A11	<p>Within 10 business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following:</p> <ul style="list-style-type: none"> a) results and interpretation of any samples taken and analysed; b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and c) proposed actions to prevent a recurrence of the emergency or incident.
Chemicals and flammable or combustible liquids	
A12	All explosives, hazardous chemicals, corrosive substances, toxic substances, gases and dangerous goods must be stored and handled in accordance with the current Australian standard where such is applicable.
A13	Minimise the potential for contamination of land and waters by diverting stormwater around contaminated areas and facilities used for the storage of chemicals and flammable or combustible liquids.

Complaint Response	
A14	<p>The holder of this environmental authority must record all environmental complaints received about the mining activities including:</p> <ul style="list-style-type: none"> a) name, address and contact number for of the complainant; b) time and date of complaint; c) reasons for the complaint; d) investigations undertaken; e) conclusions formed; f) actions taken to resolve the complaint; g) any abatement measures implemented; and, h) any person responsible for resolving the complaint.
A15	<p>The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within 10 business days of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.</p>
Third-party reporting	
A16	<p>The holder of this environmental authority must:</p> <ul style="list-style-type: none"> a) within 1 year of the commencement of this authority, obtain from a suitably qualified and experienced third party a report on compliance with the conditions of this environmental authority; b) obtain further such reports at regular intervals not exceeding 3 years from the completion of the report referred to above; and c) provide each report to the administering authority within 90 days of its completion.
A17	<p>Where a condition of this environmental authority requires compliance with a standard, policy or guideline published externally to this environmental authority and the standard is amended or changed subsequent to the issue of this environmental authority the holder of this environmental authority must:</p> <ul style="list-style-type: none"> a) comply with the amended or changed standard, policy or guideline within 2 years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation, or where the amendment or change relates specifically to regulated structures referred to in condition J48, the time specified in that condition; and b) until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.

Schedule B - Air	
Dust Nuisance	
B1	<p>The proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the dust and particulate matter emissions generated by the mining activities do not cause exceedances of the following levels when measured at any sensitive or commercial place:</p> <ul style="list-style-type: none"> a) Dust deposition of 120 milligrams per square metre per day, averaged over 1 month, when monitored in accordance with the most recent version of <i>Australian Standard AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter – Gravimetric method</i>. b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, for no more than 5 exceedances recorded each year, when monitored in accordance with the most recent version of either: <ul style="list-style-type: none"> i) <i>Australian Standard AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet – Gravimetric method</i>, or ii) <i>Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 low volume sampler—Gravimetric method</i>. c) A concentration of particulate matter suspended in the atmosphere of 90 micrograms per cubic metre over a 1 year averaging time, when monitored in accordance with the most recent version of <i>AS/NZS3580.9.3:2003 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—Total suspended particulate matter (TSP)—High volume sampler gravimetric method</i>.
Meteorological Monitoring	
B2	<p>The environmental authority holder must establish and maintain a permanent automatic meteorological station to continuously measure and record wind speed, wind direction, temperature, relative humidity and rainfall intensity.</p> <p><i>Note: It is possible for environmental authority holders to utilise relevant and available weather monitoring information collected by other parties as reference data for the purposes of this condition.</i></p>
Odour Nuisance	
B3	<p>The release of noxious or offensive odour(s) or any other noxious or offensive airborne contaminant(s) resulting from the mining activity must not cause an environmental nuisance at any nuisance sensitive or commercial place.</p>
B4	<p>When requested by the administering authority, odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaints (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within fourteen (14) days to the administering authority following completion of monitoring.</p>

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B5	<p>If the administering authority determines the odour released to constitute an environmental nuisance, then the environmental authority holder must:</p> <ul style="list-style-type: none"> a) address the complaint including the use of appropriate dispute resolution if required; and b) immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance.
Schedule C - Waste management	
C1	<p>Unless otherwise permitted by the conditions of this environmental authority or with prior approval from the administering authority and in accordance with a relevant standard operating procedure, waste must not be burnt.</p>
C2	<p>The holder of this environmental authority may burn vegetation cleared in the course of carrying out the extraction activities provided the activities does not cause environmental harm at any environmentally sensitive place and adheres to the following conditions:</p> <ul style="list-style-type: none"> a) be in accordance with a Permit to Burn issued under the <i>Fire and Rescue Service Act 1990</i>; b) ensure retained trees are not damaged by the burn; c) ensure any infrastructure is not damaged or affected by the burn; d) be 20 metres from any watercourse; e) any nearby neighbors must be notified; and, f) fire authorities must be notified.
Tailings disposal	
C3	<p>Tailings must be managed in accordance with procedures contained within the plan of operations. These procedures must include provisions for:</p> <ul style="list-style-type: none"> a) containment of tailings; b) the management of seepage and leachates both during operation and the foreseeable future; c) the control of fugitive emissions to air; d) a program of progressive sampling and characterisation to identify acid producing potential and metal concentrations of tailings; e) maintaining records of the relative locations of any other waste stored within the tailings; f) rehabilitation strategy; and g) monitoring of rehabilitation, research and/or trials to verify the requirements and methods for decommissioning and final rehabilitation of tailings, including the prevention and management of acid mine drainage, erosion minimisation and establishment of vegetation cover.

Acid sulphate soils	
C4	Treat and manage acid sulphate soils in accordance with the latest edition of the <i>Queensland Acid Sulfate Soil Technical Manual</i> .
Waste rock	
C5	<p>A waste rock and spoil disposal plan should be developed and include, where relevant, at least:</p> <ul style="list-style-type: none"> a) effective characterisation of the waste rock and spoil to predict under the proposed placement and disposal strategy the quality of runoff and seepage generated concerning potentially environmentally significant effects including salinity, acidity, alkalinity and dissolved metals, metalloids and non-metallic inorganic substances; b) a program of progressive sampling and characterisation to identify dispersive and non-dispersive spoil and the salinity, acid and alkali producing potential and metal concentrations of waste rock; c) A materials balance and disposal plan demonstrating how potentially acid forming and acid forming waste rock will be selectively placed and/or encapsulated to minimise the potential generation of acid mine drainage; d) where relevant, a sampling program to verify encapsulation and/or placement of potentially acid-forming and acid-forming waste rock; e) how often the performance of the plan will be assessed; f) the indicators or other criteria on which the performance of the plan will be assessed; and g) rehabilitation strategy.
Schedule D - Noise and Vibration	
Noise Nuisance	
D1	Subject to condition D2 noise from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.
D2	When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within ten (10) business days to the administering authority following completion of monitoring.
D3	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's <i>Noise Measurement Manual</i> .
Vibration Nuisance	
D4	Subject to condition D5 vibration from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.
D5	When requested by the administering authority, vibration monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within ten (10) business days to the administering authority following completion of monitoring.

Airblast Overpressure Nuisance	
D6	The airblast overpressure level from blasting operations must not exceed the limits defined in <i>Table 1 - Airblast Overpressure Level at any sensitive or commercial place</i> .

Table 1: Airblast Overpressure Level

Location	Airblast Overpressure Measured
Sensitive or commercial place	Air blast overpressure level of 115 db (Linear peak) for nine (9) out of ten (10) consecutive blasts initiated and not greater than 120 db (Linear peak) at any time.

D7	When requested by the administering authority, airblast overpressure monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within ten (10) business days to the administering authority following completion of monitoring.
D8	Airblast overpressure monitoring must include the following descriptors, characteristics and conditions: a) location of the blast(s) within the mining area; b) atmospheric conditions including temperature, relative humidity and wind speed and direction; and c) location, date and time of recording.
D9	If monitoring indicates exceedence of the relevant limits in Table 1 - <i>Airblast Overpressure Level</i> , then the environmental authority holder must: a) address the complaint including the use of appropriate dispute resolution if required; and b) immediately implement airblast overpressure abatement measures so that airblast overpressure from the activity does not result in further environmental nuisance.
D10	The method of measurement and reporting of airblast overpressure levels must comply with the current edition of the administering authority's <i>Noise Measurement Manual</i> .

Schedule E - Groundwater	
E1	The holder of this environmental authority must not release contaminants to groundwater.
E2	All determinations of groundwater quality and biological monitoring must be performed by an appropriately qualified person.
E3	The holder of the environmental authority must develop and implement a groundwater monitoring program to monitor groundwater quality and levels by 30 May 2016 . Groundwater monitoring locations and frequencies as per Table 2 - <i>Groundwater monitoring locations and frequency</i> , quality triggers and limits as per Table 3 - <i>Groundwater quality triggers and limits</i> and level trigger thresholds as per Table 4 - <i>Groundwater Level Monitoring</i> must be finalised based on background groundwater monitoring program defined in condition E4 and be submitted to the administering authority by 30 May 2016 .

Table 2: Groundwater monitoring locations and frequency

Monitoring Point	Easting (GDA 94)	Northing (GDA 94)	Surface RL (m) ¹	Monitoring Frequency
GMP1	678180	7465000	To be supplied to the administering authority in accordance with condition E3.	Levels collected from Rewan and underlying coal measure formations and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly.
GMP2	678370	7470200	To be supplied to the administering authority in accordance with condition E3.	Levels collected from Rewan and underlying coal measure formations and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly.
GMP3	681400	7470100	To be supplied to the administering authority in accordance with condition E3.	Levels collected from underlying coal measure formations and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly.
GMP4	681400	7470100	To be supplied to the administering authority in accordance with condition E3.	Samples collected from alluvium and analysed monthly for the initial 12 months of baseline data collection and following that, quarterly. Standing water levels to be measured monthly.

Table 3: Groundwater quality triggers and limits

Water Quality Indicator	Unit	Contaminant Triggers	Contaminant Limit
Aluminium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Antimony	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Arsenic	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Calcium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Chlorine	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
CO ₃	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Dissolved Solids (Total)	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Electrical Conductivity	µS/cm	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
HCO ₃	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Iron	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Magnesium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Mercury	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Molybdenum	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
pH	pH Units	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Potassium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Selenium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Silver	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
SO ₄	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.
Sodium	µg/L	To be supplied to the administering authority as required by condition E3	To be supplied to the administering authority as required by condition E3.

Table 4: Groundwater level monitoring

Monitoring Point	Level trigger threshold
GMP1	To be supplied to the administering authority as required by condition E3
GMP2	To be supplied to the administering authority as required by condition E3
GMP3	To be supplied to the administering authority as required by condition E3
GMP4	To be supplied to the administering authority as required by condition E3

E4	<p>A background groundwater monitoring program must be developed to include the following:</p> <ul style="list-style-type: none"> a) groundwater monitoring locations (bore(s)) that are located an appropriate distance from potential sources of impact from mining activities and are representative of the aquifers potentially affected by mining activities b) representative groundwater samples from each of the bores; c) containment parameters, background groundwater levels, quality triggers and contaminant limits must be determined; d) sampling at a frequency of not less than monthly must be undertaken to determine groundwater levels and quality; e) finalise the required information relating to groundwater under Table 3 - <i>Groundwater quality triggers and limits</i>, Table 4 - <i>Groundwater monitoring locations</i> and Table 5 - <i>Mine affected water release points, sources and receiving waters</i> of this Environmental Authority; <p>Review of the results from the groundwater monitoring program must occur to determine if further assessment on the following aspects below would be warranted:</p> <ul style="list-style-type: none"> a) groundwater interactions with surface waters of Cockatoo Creek; b) impacts on potential shallow alluvial stygofauna; c) impacts on potential groundwater dependent ecosystems across the site; and d) the role of the Rewan formation and groundwater storage in associated sediments. <p><i>Note: If a review of the results indicate deficiencies in data recorded, or, warrants that further assessment is required, the holder of the EA must undertake a more detailed assessment and present a report to the department outlining associated risks within the time period specified by the department.</i></p>
E5	<p>The groundwater level and the water quality indicators specified in Table 3 - <i>Groundwater quality triggers and limits</i> must be monitored for at the locations in Table 2 - <i>Groundwater monitoring locations and frequency</i> and Figure 4 - <i>Groundwater monitoring locations</i> at the frequencies in Table 2 - <i>Groundwater monitoring locations and frequency</i>.</p>
E6	<p>Groundwater levels when measured at the monitoring locations specified in Table 2 - <i>Groundwater monitoring locations and frequency</i> and Figure 4 - <i>Groundwater monitoring locations</i> must not exceed the groundwater level trigger thresholds specified in Table 4 - <i>Groundwater level monitoring</i>.</p>
E7	<p>If water quality indicators listed in Table 3 - <i>Groundwater quality triggers and limits</i> are found to exceed any of the contaminant limits stated in Table 3 - <i>Groundwater quality triggers and limits</i>, or, groundwater levels stated in Table 4 - <i>Groundwater level monitoring</i> are found to exceed any of the level trigger thresholds, the holder of this environmental authority must complete an investigation in accordance with the ANZECC and ARMCANZ 2000.</p>

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E8	Results of monitoring groundwater from compliance bores identified in Table 2 - <i>Groundwater monitoring locations and frequency</i> must not exceed any of the contaminant limits defined in Table 3 - <i>Groundwater quality triggers and limits</i> .
Bore construction and maintenance and decommissioning	
E9	The construction, maintenance and management of groundwater bores (including groundwater monitoring bores) must be undertaken in a manner that prevents or minimises impacts to the environment and ensures the integrity of the bores to obtain accurate monitoring
Schedule F - Water	
Contaminant release	
F1	Contaminants that will, or have the potential to cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.
F2	Unless otherwise permitted under the conditions of this environmental authority, the release of mine affected water to waters must only occur from the release points specified in Table 5 - <i>Mine affected water release point, sources and receiving waters</i> and depicted in Figure 7 - <i>Release Points and Monitoring Point Locations</i> attached to this environmental authority.

Table 5: Mine affected water release points, sources and receiving waters

Release Point (RP)	Latitude (decimal degree, GDA94)	Longitude (decimal degree, GDA94)	Mine affected water source and location	Monitoring Point		Receiving waters description
				Water flow	Water quality	
RP 1	-22.9180	148.7890	ML4 Pits, Foxleigh and Foxleigh Plains mining areas	Cockatoo Creek US	Roper Creek DS2	Cockatoo Creek
RP 2	-22.9679	148.7992	Foxleigh and Foxleigh Plains mining areas	Cockatoo Creek US	Roper Creek DS2	Cockatoo Creek
RP 3	-23.0164	148.8196	Far South, Foxleigh and Foxleigh Plains mining areas	Roper Creek US	Roper Creek DS2	Roper Creek

F3	The release of mine affected water to internal water management infrastructure installed and operated in accordance with a water management plan that complies with conditions F31 and F32 is permitted.
F4	The release of mine affected water to waters in accordance with condition F2 must not exceed the release limits stated in Table 6 – <i>Mine affected water release limits</i> when measured at the monitoring points specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i> , Table 8a – Flow triggers to start mine affected water release and Table 8b Flow triggers to cease mine affected water release for each quality characteristic.

Table 6: Mine affected water release limits

Quality Characteristic	Release Limits	Monitoring Frequency
Electrical Conductivity ($\mu\text{S}/\text{cm}$)	Electrical conductivity ($\mu\text{S}/\text{cm}$) <10,000	Daily during release (the first sample must be taken within two (2) hours of commencement of release)
pH (pH Unit)	6.5 (minimum) 9.0 (maximum)	Daily during release (the first sample must be taken within two (2) hours of commencement of release)
Turbidity (NTU)	Current limit or limit derived from suspended solids limit and demonstrated correlation between turbidity to suspended solids historical monitoring data for dam water*	Daily during release* (first sample within two hours of commencement of release) Note: Turbidity is required to assess ecosystems impacts and can provide instantaneous results.
Suspended solids (mg/L)	650* Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment*	Daily during release* (first sample within two hours of commencement of release)
Sulphate (SO_4^{2-}) (mg/L)	Sulphate (SO_4^{2-}) (mg/L) < 3,000	Daily during release* (first sample within two hours of commencement of release)

Note: *Limit for suspended solids can be omitted if turbidity limit is included. Limit for turbidity not required if suspended solids limit included. Both indicators should be measured in all cases.

F5	<p>The release of mine affected water to waters from the release points must be monitored at the locations specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i> for each quality characteristics and at the frequency specified in Table 6 – <i>Mine affected water release limits</i> and Table 8a – <i>Flow Triggers to start Mine Affected Water Release</i> and Table 8b - <i>Flow Triggers to cease Mine Affected Water Release</i>.</p> <p>Note: The administering authority will take into consideration any extenuating circumstances prior to determining an appropriate enforcement response, in the event condition F5 is contravened due to a temporary lack of safe or practical access. The administering authority expects the environmental authority holder to take all reasonable and practicable measures to maintain safe and practical access to designated monitoring locations.</p>
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Table 7: Release contaminant trigger investigation levels, potential contaminants

Quality characteristic	Trigger levels ($\mu\text{g}/\text{L}$)	Comment on trigger level	Monitoring frequency
Aluminium	55	For aquatic ecosystem protection, based on SMD guideline	Commencement of release and thereafter weekly during release
Arsenic	13	For aquatic ecosystem protection, based on SMD guideline	
Cadmium	0.2	For aquatic ecosystem protection, based on SMD guideline	
Chromium	1	For aquatic ecosystem protection, based on SMD guideline	
Copper	2	For aquatic ecosystem protection, based on SMD guideline	
Iron	300	For aquatic ecosystem protection, based on low reliability guideline	
Lead	4	For aquatic ecosystem protection, based on SMD guideline	
Mercury	0.2	For aquatic ecosystem protection, based on LOR for CV FIMS	
Nickel	11	For aquatic ecosystem protection, based on SMD guideline	

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Quality characteristic	Trigger levels (µg/L)	Comment on trigger level	Monitoring frequency
Zinc	8	For aquatic ecosystem protection, based on SMD guideline	
Boron	370	For aquatic ecosystem protection, based on SMD guideline	
Cobalt	90	For aquatic ecosystem protection, based on low reliability guideline	
Manganese	1900	For aquatic ecosystem protection, based on SMD guideline	
Molybdenum	34	For aquatic ecosystem protection, based on low reliability guideline	
Selenium	10	For aquatic ecosystem protection, based on LOR for ICPMS	
Silver	1	For aquatic ecosystem protection, based on LOR for ICPMS	
Uranium	1	For aquatic ecosystem protection, based on LOR for ICPMS	
Vanadium	10	For aquatic ecosystem protection, based on LOR for ICPMS	
Ammonia	900	For aquatic ecosystem protection, based on LOR for ICPMS	
Nitrate	1100	For aquatic ecosystem protection, based on ambient Qld WQ Guidelines (2006) for TN	
Sodium	TBA		
Petroleum hydrocarbons (C6-C9)	20		
Petroleum hydrocarbons (C10-C36)	100		
Fluoride (total)	2000	Protection of livestock and short term irrigation guideline	
Suspended Solids	Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment*		
Sulphate (SO ₄ ²⁻) (mg/L)	Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment*	Drinking water environmental values from NHMRC 2006 guidelines OR ANZECC	

Notes:

1. All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Trigger levels for metal/metalloids apply if dissolved results exceed trigger.
2. The quality characteristics required to be monitored as per Table 3 can be reviewed once the results of two years monitoring data is available, or if sufficient data is available to adequately demonstrate negligible environmental risk. It may be determined that a reduced monitoring frequency is appropriate or certain quality characteristics can be removed from Table 3 by amendment.
3. SMD—slightly moderately disturbed level of protection, guideline refers ANZECC & ARMCANZ (2000).
4. LOR—typical reporting for method stated. ICPMS/CV FIMS—analytical method required to achieve LOR.

Table 8a: Flow Triggers to start Mine Affected Water Release

Receiving Waters / Stream	Release Point	Monitoring Point	Monitoring Point Latitude (decimal degree, GDA94)	Monitoring Point Longitude (decimal degree, GDA94)	Receiving Water Flow Recording Frequency	Receiving Water Flow Criteria to start discharge (m ³ /s)	Maximum release rate for all combined RP flows
Cockatoo Creek	RP 1	Cockatoo Creek US	-22.8904	148.7661	Continuous (minimum daily)	0.66	2m ³ /s
Cockatoo Creek	RP 2	Cockatoo Creek US	-22.8904	148.7661	Continuous (minimum daily)	0.66	
Roper Creek	RP 3	Roper Creek US	-22.8762	148.6719	Continuous (minimum daily)	0.95	

Table 8b: Flow Triggers to Cease Mine Affected Water Release

Receiving Waters / Stream	Release Point (RP)	Monitoring Point	Monitoring Point Latitude (decimal degree, GDA94)	Monitoring Point Longitude (decimal degree, GDA94)	Receiving Water Flow Recording Frequency	Minimum Receiving Water Flow Criteria to continue discharge (m ³ /s)
Cockatoo Creek	RP 1	Roper Creek DS2	-23.0105	148.8415	Continuous (minimum daily)	0.5
Cockatoo Creek	RP 2	Roper Creek DS2	-23.0105	148.8415	Continuous (minimum daily)	0.5
Roper Creek	RP 3	Ropers Creek DS2	-23.0105	148.8415	Continuous (minimum daily)	0.5

F6	<p>If quality characteristics of the release exceed any of the trigger levels specified in Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i> during a release event, the environmental authority holder must compare the downstream results in the receiving waters to the trigger values specified in Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i> and:</p> <ul style="list-style-type: none"> a) where the trigger values are not exceeded then no action is to be taken; or b) where the downstream results exceed the trigger values specified Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i> for any quality characteristic, compare the results of the downstream site to the data from background monitoring sites and: <ul style="list-style-type: none"> 1) if the result is less than the background monitoring site data, then no action is to be taken; or 2) if the result is greater than the background monitoring site data, complete an investigation into the potential for environmental harm and provide a written report to the administering authority within 90 days of receiving the result, outlining: <ul style="list-style-type: none"> i) details of the investigations carried out; and ii) actions taken to prevent environmental harm. <p><i>Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with F6(b)(2) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.</i></p>
F7	<p>If an exceedance in accordance with condition F6(b)(2) is identified, the holder of the authority must notify the administering authority in writing within 24 hours of receiving the result.</p>
Mine affected water release events	
F8	<p>The holder must ensure a stream flow gauging station(s) is installed, operated and maintained to determine and record stream flows at the locations and flow recording frequency specified in Table 7 - <i>Release contaminant trigger investigation levels, potential contaminants</i>.</p>
F9	<p>Notwithstanding any other condition of this environmental authority, the release of mine affected water to waters in accordance with condition F2 must only start when natural flow in the receiving environment meets the trigger values specified in Table 8a - <i>Flow Triggers to start Mine Affected Water Release</i> for the release point(s) specified in Table 5 - <i>Mine affected water release points, sources and receiving waters</i>.</p>
F10	<p>The releases of mine affected water to waters in accordance with conditions F6 must not exceed a maximum release rate for all combined release points flows of 2m³/s</p>
F11	<p>The electrical conductivity (EC) values recorded at the downstream monitoring point on Roper Creek (Roper Creek DS2) must not exceed 2000µS/cm at any time during the release influence period.</p>
F12	<p>The electrical conductivity (EC) values recorded at the Barwon Park monitoring station on Roper Creek (Roper Creek Barwon Park) must not exceed 1500 µS/cm at any time during the release influence period.</p>
F13	<p>If electrical conductivity (EC) recorded at Bingegang Weir exceeds 650µS/cm during a release event, the environmental authority holder must immediately notify the administering authority and seek written approval to continue releasing mine affected water.</p>
F14	<p>The daily quantity of mine affected water released from each release point must be measured and recorded.</p>
F15	<p>Releases to waters must be undertaken so as not to cause erosion of the bed and banks of the receiving waters, or cause a material build-up of sediment in such waters.</p>

Notification of release event	
F16	<p>The environmental authority holder must notify the administering authority as soon as practicable and no later than 24 hours after commencing to release mine affected water to the receiving environment. Notification must include the submission of written advice to the administering authority of the following information:</p> <ul style="list-style-type: none"> a) release commencement date/time; b) details regarding the compliance of the release with the conditions of Department Interest: Water of this environmental authority (that is, contaminant limits, natural flow, discharge volume) c) release point(s); d) release rate e) release salinity; and f) receiving water(s) including the natural flow rate. <p><i>Note: Notification to the administering authority must be addressed to the Manager and Project Manager of the local administering authority via email or facsimile.</i></p>
F17	<p>The environmental authority holder must notify the administering authority as soon as practicable and nominally no later than 24 hours after cessation of a release event of the cessation of a release notified under condition F17 and within 28 days provide the following information in writing:</p> <ul style="list-style-type: none"> a) release cessation date/time; b) natural flow volume in receiving water; c) volume of water released; d) details regarding the compliance of the release with the conditions of Department Interest ; Water of this environmental authority (i.e. contamination limits, natural flow, discharge volume); e) all in-situ water quality monitoring results; and f) any other matters pertinent to the water release event. <p><i>Note: Successive or intermittent releases occurring within 24 hours of the cessation of any individual release can be considered part of a single release event and do not require individual notification for the purpose of compliance with conditions F17 and F18, provided the relevant details of the release are included within the notification provided in accordance with conditions F17 and F18.</i></p>
Notification of release event exceedance	
F18	<p>If the release limits defined in Table 6 – <i>Mine affected water release limits</i>, Table 8a – <i>Flow triggers to start mine affected water release</i> and Table 8b - <i>Flow triggers to cease mine affected water release</i> are exceeded, the holder of the environmental authority must notify the administering authority within 24 hours of receiving the results.</p>

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F19	<p>The environmental authority holder must, within 28 days of a release that exceeds the conditions of this authority, provide a report to the administering authority detailing:</p> <ul style="list-style-type: none"> a) the reason for the release; b) the location of the release; c) the total volume of the release and which (if any) part of this volume was non-compliant; d) the total duration of the release and which (if any) part of this period was non-compliant; e) all water quality monitoring results (including all laboratory analyses); f) identification of any environmental harm as a result of the non-compliance; g) all calculations; and h) any other matters pertinent to the water release event.
Monitoring of water storage quality	
F20	<p>Water storages stated in Table 9 – <i>Water Storage Monitoring</i> which are associated with the release points must be monitored for the water quality characteristic specified in Table 11 – <i>Receiving Waters Contaminant Trigger Levels</i> and daily during releases.</p>

Table 9: Water Storage Monitoring

Water Storage Description	Associated Release point	Latitude (GDA94)	Longitude (GDA94)	Monitoring Location	Frequency of Monitoring
NE Pit (Mine Affected)	RP 1	-22.91709	148.76001	Any accessible safe point	Quarterly
Old NE Pit (Mine Affected)	RP 1	-22.92028	148.75456	Any accessible safe point	Quarterly
NW Pit (Mine Affected)	RP 1	-22.92805	148.76770	Any accessible safe point	Quarterly
Far South Highwall Dam (Mine Affected)	RP 3	-23.01136	148.81703	Any accessible safe point	Quarterly
Cockatoo Creek Sediment Dam 1	RP 2	-22.96953	148.80091	Any accessible safe point	Quarterly
Cockatoo Creek Sediment Dam 2	RP 2	-22.96643	148.80156	Any accessible safe point	Quarterly
Foxleigh Plains Pit Highwall Dam	TBC	To be constructed	To be constructed	Any accessible safe point	Quarterly
Eagles Nest Pit Highwall Dam	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Foxleigh Plains MIA Dam	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Overburden Catch Dam (Central South)	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Overburden Catch Dam (Central West)	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly
Overburden Catch Dam (Central East)	TBA	To be constructed	To be constructed	Any accessible safe point	Quarterly

Note: TBA is regarded as meaning that the release point will be provided within 6 Months of the water storage being constructed.

F21	In the event that water storages defined in Table 10 – <i>On-site Water Storage Contaminant Limits</i> exceed the contaminant limits defined in Table 10 – <i>On-site Water Storage Contaminant Limits</i> , the holder of the environmental authority must implement measures, where practicable, to prevent access to waters by all livestock.
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Table 10: On-site Water Storage Contaminant Limits

Quality Characteristic	Test Value	Contaminant Limit
pH (pH unit)	Range	Greater than 4, less than 9 [^]
EC (µS/cm)	Maximum	5970*
Sulphate (mg/L)	Maximum	1000*
Fluoride (mg/L)	Maximum	2*
Aluminium (mg/L)	Maximum	5*
Arsenic (mg/L)	Maximum	0.5*
Cadmium (mg/L)	Maximum	0.01*
Cobalt (mg/L)	Maximum	1*
Copper (mg/L)	Maximum	1*
Lead (mg/L)	Maximum	0.1*
Nickel (mg/L)	Maximum	1*
Zinc (mg/L)	Maximum	20*

* Contaminant limit based on ANZECC & ARMCANZ (2000) stock water quality guidelines.

[^] Page 4.2-15 of ANZECC & ARMCANZ (2000) "Soil and animal health will not generally be affected by water with pH in the range of 4–9".

Note: Total measurements (unfiltered) must be taken and analysed.

Receiving environment monitoring and contaminant trigger levels	
F22	The quality of the receiving waters must be monitored at the locations specified in Table 12 - <i>Receiving water upstream background sites and downstream monitoring points</i> for each quality characteristic and at the monitoring frequency stated in Table 11 - <i>Receiving waters contaminant trigger levels</i> .

Table 11: Receiving Waters Contaminant Trigger Levels

Quality Characteristic	Trigger Level	Monitoring Frequency
pH	6.5 – 8.0	Daily during the release
Suspended solids (mg/L)	650	
Sulphate (SO ₄ ²⁻) (mg/L)	250 (Protection of drinking water environmental value)	
Sodium (mg/L)	To be supplied to the administering authority by 30 June 2016.	

Table 12: Receiving Water Upstream Background Sites and Downstream Monitoring Points

Monitoring Points and Receiving Waters Location Description	Latitude (Decimal degree, GDA94)	Longitude (Decimal degree, GDA94)
Upstream Background Monitoring Points		
Roper Creek US	-22.87623	148.6719
Cockatoo Creek US	-22.8904	148.7661
Carlo Creek US	-22.9241	148.8266
Parrot Creek DS(Downstream of Capcoal Mine and Upstream of Foxleigh Mine)	- 22.9218	148.6665
Downstream Monitoring Points		
Roper Creek DS2	-23.00984	148.84109
Roper Creek at Barwon Park	-23.0570	148.8881
Cockatoo Creek DS -	-23.0036	148.8326

Note: The data from background monitoring points must not be used where they are affected by releases from other mines.

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F23	<p>If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in Table 11 - <i>Receiving waters contaminant trigger levels</i> during a release event the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:</p> <ul style="list-style-type: none"> a) where the downstream result is the same or a lower value than the upstream value for the quality characteristic then no action is to be taken; or b) where the downstream results exceed the upstream results complete an investigation into the potential for environmental harm and provide a written report to the administering authority in the next annual return, outlining: <ul style="list-style-type: none"> i) details of the investigations carried out; and ii) actions taken to prevent environmental harm. <p><i>Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with F23(b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.</i></p>
F24	All determinations of water quality and biological monitoring must be performed by an appropriately qualified person.
Receiving environment monitoring program (REMP)	
F25	<p>The environmental authority holder must develop and implement a Receiving Environment Monitoring Program (REMP) to monitor, identify and describe any adverse impacts to surface water environmental values, quality and flows due to the authorised mining activity. This must include monitoring the effects of the mine on the receiving environment periodically (under natural flow conditions) and while mine affected water is being discharged from the site.</p> <p>For the purposes of the REMP, the receiving environment is the waters of Roper Creek and connected or surrounding waterways within 10km downstream of the release. The REMP should encompass any sensitive receiving waters or environmental values downstream of the authorised mining activity that will potentially be directly affected by an authorised release of mine affected water.</p>
F26	A REMP design document that addresses the requirements of the REMP must be prepared and made available to the administering authority upon request.
F27	A report outlining the findings of the REMP, including all monitoring results and interpretations must be prepared annually and made available on request to the administering authority. This must include an assessment of background reference water quality, the condition of downstream water quality compared against water quality objectives, and the suitability of current discharge limits to protect downstream environmental values.
Water reuse	
F28	Mine affected water may be piped or trucked or transferred by some other means that does not contravene the conditions of this environmental authority and deposited into artificial water storage structures, such as farm dams or tanks, or used directly at properties owned by the environmental authority holder or a third party (with the consent of the third party).

Annual Water Monitoring Reporting	
F29	<p>The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority in the specified format:</p> <ul style="list-style-type: none"> a) the date on which the sample was taken; b) the time at which the sample was taken; c) the monitoring point at which the sample was taken; d) the measured or estimated daily quantity of mine affected water released from all release points; e) the release flow rate at the time of sampling for each release point; f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority; and g) water quality monitoring data must be provided to the administering authority in the specified electronic format upon request.
Temporary interference with waterways	
F30	<p>Destroying native vegetation, excavating, or placing fill in a watercourse, lake or spring necessary for and associated with mining operations must be undertaken in accordance with Department of Natural Resources and Mines (or its successor) <i>Guideline - Activities in a Watercourse, Lake or Spring Associated with Mining Activities</i>.</p>
Water management plan	
F31	<p>A Water Management Plan must be developed by an appropriately qualified person and implemented.</p>
Stormwater and water sediment controls	
F32	<p>An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.</p>
F33	<p>Stormwater, other than mine affected water, is permitted to be released to waters from:</p> <ul style="list-style-type: none"> a) erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by condition F32; and b) water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with condition F31, for the purpose of ensuring water does not become mine affected water.
F34	<p>The maintenance and cleaning of any vehicles, plant or equipment must not be carried out in areas from which contaminants can be released into any receiving waters.</p>
Schedule H - Land	
Rehabilitation	
H1	<p>Land disturbed by mining must be rehabilitated in accordance with Appendix 2: <i>Rehabilitation Requirements</i>.</p>
H2	<p>Rehabilitation must commence progressively in accordance with the Plan of Operations.</p>

Contaminated Land	
H3	Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.
H4	Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area the subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use under condition H1 .
H5	Minimise the potential for contamination of land by hazardous contaminants.
Infrastructure	
H6	All bunding for coal stockpiles must be a minimum of 30m from the lease boundary.
Biodiversity Offsets	
H7	<p>The holder of this environmental authority must provide an offset for impacts on applicable state significant biodiversity values, in accordance with <i>Queensland Biodiversity Offset Policy</i>. The biodiversity offset must be consistent with the requirements for an offset as identified in the Biodiversity Offset Strategy (as per condition H8) and must be provided:</p> <ul style="list-style-type: none"> a) prior to impacting on state significant biodiversity values; or b) where a land based offset is to be provided, within 12 months of the later of either of the following <ul style="list-style-type: none"> i) the date of issue of this environmental authority; or ii) the relevant stage identified in the Biodiversity Offset Strategy submitted under condition H8; or c) where an offset payment is to be provided, within 4 months of the later of either of the following <ul style="list-style-type: none"> i. the date of issue of this environmental authority; or ii. the relevant stage identified in the Biodiversity Offset Strategy submitted under conditions H8.
H8	A Biodiversity Offset Strategy must be developed and submitted to the administering authority within either 30 days, or a lesser period agreed to by the administering authority, prior to impacting on the applicable state significant biodiversity values.

Schedule J - Regulated Structures

J1	<p>The hazard category of any structure must be assessed by a suitably qualified and experienced person:</p> <ul style="list-style-type: none"> a) in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635); and b) in any of the following situations: <ul style="list-style-type: none"> i) prior to the design and construction of the structure; or ii) prior to any change in its purpose or the nature of its stored contents; and c) in accordance with the <i>Manual for assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635).
J2	A hazard assessment report and certification must be prepared for any structure assessed and the report may include a hazard assessment for more than one structure.
J3	The holder must, on receipt of a hazard assessment report and certification, provide to the administering authority one paper copy and one electronic copy of the hazard assessment report and certification.
J4	Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635).
J5	The holder must take reasonable and practical measures so that each dam associated with the mining activity is designed, constructed, operated and maintained in accordance with accepted engineering standards and is fit for the purpose for which it is intended.
Design and construction of a regulated structure	
J6	All regulated structures excluding structures listed in condition J37 must be designed by, and constructed under the supervision of, a suitably qualified and experienced person in accordance with the requirements of the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635).
J7	<p>Construction of a regulated structure excluding structures listed in condition J37 is prohibited unless the holder has:</p> <ul style="list-style-type: none"> a) submitted a hazard category assessment report and certification to the administering authority; b) commissioned a suitably qualified and experienced person to prepare a design plan for the structure; and c) received the certification from a suitably qualified and experienced person for the design and design plan and the associated operating procedures in compliance with the relevant condition of this authority.
J8	Certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan, in the form set out in the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i> (EM635).

J9	<p>Regulated structures excluding structures listed in condition J37 must:</p> <ul style="list-style-type: none"> a) be designed and constructed in accordance with and conform to the requirements of the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i>; b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of: <ul style="list-style-type: none"> i) floodwaters from entering the regulated dam from any watercourse or drainage line; and ii) wall failure due to erosion by floodwaters arising from any watercourse or drainage line.
J10	<p>The design plan for a regulated structure must include, but is not limited to:</p> <ul style="list-style-type: none"> a) certification that the design plan: <ul style="list-style-type: none"> i) is in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i>, including subsidiary certifications if necessary; and ii) addresses the requirements in J10 (b) to (i) b) a design report which provides: <ul style="list-style-type: none"> i) a description of all the documents which constitute the design plan; ii) a statement of: <ul style="list-style-type: none"> 1) the applicable standards including engineering criteria, industry guidelines, relevant legislation and regulatory documents, relied upon in preparing the design plan; 2) all relevant facts and data used in preparing the design plan, including any efforts made to obtain necessary facts and data, and any limitations or assumptions to facts and data used in preparing the design plan; 3) the hazard category of the regulated structure; and 4) setting out the reasoning of the suitably qualified and experienced person who has certified the design plan, as to how the design plan provides the necessary required performance; iii) documentation of hydrological analyses and estimates required to determine all elements of the design including volumes and flow capacities; iv) detailed criteria for the design, operation, maintenance and decommissioning of the regulated structure, including any assumptions; and v) design, specification and operational rules for any related structures and systems used to prevent failure scenarios; c) Drawings showing the lines and dimensions, and locations of built structures and land forms associated with the regulated structure; d) Consideration of the interaction of the pit design with the levee or regulated dam design; e) An operational plan that includes: <ul style="list-style-type: none"> i) normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance); ii) contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure; f) A plan for the decommissioning and rehabilitation of the regulated structure at the end of its operational life; g) Details of reports on investigations and studies done in support of the design plan; h) Any other matter required by the suitably qualified and experienced person.

J11	<p>Certification by the suitably qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure, and state that:</p> <ul style="list-style-type: none"> a) the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure; and b) construction of the regulated structure is in accordance with the design plan.
J12	<p>Where a regulated dam is to be managed as part of an integrated containment system and the DSA volume is to be shared across the integrated containment system, the design and operating rules for the system as a whole must be documented in a system design plan that is certified by a suitably qualified and experienced person.</p>
J13	<p>The system design plan must contain:</p> <ul style="list-style-type: none"> a) the design plans; b) the 'as constructed' plans; c) the operational rules for each individual regulated dam that forms part of the integrated system; d) the standards of serviceability and accessibility of water transfer equipment or structures; and e) the operational rules for the system as a whole.
Operation of a regulated structure	
J14	<p>Operation of a regulated structure is prohibited unless:</p> <ul style="list-style-type: none"> a) the holder has submitted to the administering authority: <ul style="list-style-type: none"> i) one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with condition J3; ii) a set of 'as constructed' drawings and specifications; iii) certification of those 'as constructed drawings and specifications' in accordance with condition J10; iv) where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, a copy of the certified system design plan; b) the requirements of this authority relating to the construction of the regulated structure have been met; and c) relevant details for the dam have been included in Table 14 - <i>Receiving Waters Contaminant Trigger Level</i>, Table 15 - <i>Hydraulic Performance of Regulated Dams</i> and Table 16 - <i>Basic details of regulated levees</i> of this authority.

Table 14: Location and Basic Details of Regulated Dams

Name of Regulated Dam	Hazard Category	Map ID	Tenure	Surface Area of Dam at Spillway (ha)	Max Volume of Dam at Spillway (ML)	Max Depth of Dam at Spillway (m)	Spillway Level (mAHD)	Use of Dam	Location	
									Easting (GDA 94 Zone 55)	Northing (GDA 94 Zone 55)
Tailings Dam 1	Significant (>25 ML & EC >4,000)	1	ML70171	10	3022	24	137	Contain CHPP fine rejects & Water	681605.3 681763.8 681395.3 681110.1	7460516.2 7460237.2 7460051.9 7460498.7
Tailings Dam 2	Significant (>25ML & EC >4,000)	2	ML70171	40	6162	723	137	Contain CHPP fine rejects & Water	681160.6 681413.8 681140.0 680922.8	7461291.3 7460562.5 7460535.8 7461126.6
CHPP Process Water Dam	Significant (>25ML & EC >4,000)	3	ML70171	1.6	30	2	To be determined by 30 November 2013	CHPP Process Water	680424.6 680435.9 680350.4 680350.4	7461486.9 7461317.1 7461323.3 7461459.1
CHPP Raw Water Dam	Significant (>25ML & EC >4,000)	4	ML70171	1	40	2	To be determined by 30 November 2013	CHPP Process Water	680340.1 680339.1 680260.9 680252.6	7461457.1 7461336.6 7461358.3 7461416.92
CHPP ROM Sediment Dam	Significant (>25ML, EC >5,970 & pH >9.0)	5	ML70171	2.4	22	3	To be determined by 30 November 2013	CHPP ROM Stockpile Runoff	680361.8 680548.1 680291.8 680056.0 680178.5 680234.1 680088.9	7461012.4 7460899.1 7460876.5 7460993.8 7461340.8 7461301.6 7461009.3
NT Sediment Dam West	Significant (>25ML, EC >4,000 & Sulphate >1,000)	6	ML70171	4.4	77	To be determined by 30 November 2013	To be determined by 30 November 2013	CHPP Rejects runoff and Process water from revegetated spoil	680585.1 680683.9 680756.0 680732.4	7460903.3 7460978.4 7460599.6 7460580.0
Cockatoo Creek ROM Sediment Dam 1	Significant (>25ML & EC >4,000 & pH >9.0)	7	ML70309	2	30	5	To be determined by 30 November 2013	Cockatoo ROM Stockpile Runoff	684584.9 684721.9 684623.1 684522.7	7458892.6 7458806.5 7458553.3 7458728.5
Cockatoo Creek ROM Sediment Dam 2	Significant (>25ML, EC >4,000, pH >9.0 & Sulphate >1000)	8	ML70309	3	50	5	To be determined by 30 November 2013	Cockatoo ROM Stockpile Runoff	684634.2 684755.3 684699.6 684631.1	7459241.4 7459179.3 7458878.2 7458986.6
Truckfill Dam South	Significant (>25ML, EC >4,000 & pH >9.0)	9	ML70171	2.7	40	To be determined by 30 November 2013	To be determined by 30 November 2013	Overland flow and haul road runoff	681918.1 682031.8 682014.6 681883.1 681870.5	7461022.5 7460935.9 7460855.5 7460871.5 7460982.9

Table 15: Hydraulic Performance of Regulated Dams

Mine Feature Name	Spillway Capacity AEP	Design Storage Allowance AEP	Mandatory Reporting Level AEP
Tailings (NT) Void *sum of Tailings Cell 1 and Cell 2 below	9184 ML	130.08 DSA	131.29 MRL
Tailings Dam 1 (within Tailings NT Void)	3012ML	130.08 DSA	131.29 MRL
Tailings Dam 2 (within Tailings NT Void)	6162 ML	130.08 DSA	131.29 MRL
CHPP Process Water Dam	30 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
CHPP Raw Water Dam	40 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
CHPP ROM Sediment Dam	22 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
NT Sediment Dam West	77 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
Cockatoo Creek ROM Sediment Dam 1	30 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
Cockatoo Creek ROM Sediment Dam 2	50 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013
Truckfill Dam South	40 ML	To be Determined by 31 st November 2013	To be Determined by 31 st November 2013

Note: 'To be determined' refers to the required information being provided either within the transitional period outlined in condition J37 (3 years), or, as per the Levee Action Plan provided to the department on the 18 December 2012, whichever period ends first.

Table 16: Basic Details of Regulated Levees

Name of Regulated Levee	Design AEP	Design Flood Level (mAHD)	Minimum Levee Level (mAHD)	Schedule D Table 20 Location ID ¹	Use of Levee
Carlo Levee (new)	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
NE Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
NE Levee 2	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Roper Creek Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Cockatoo Creek Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Far South East Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
WC Levee	1 in 1000 + 0.5m	To be determined	To be determined	To be determined	Flood Protection
Cockatoo Creek Levee – Stage 1	1 in 1000 + 0.5m	Not constructed	Not constructed	Not constructed	Flood Protection
Cockatoo Creek Levee – Foxleigh Plains Pit	1 in 1000 + 0.5m	Not constructed	Not constructed	Not constructed	Flood Protection
Roper Creek Levee – Eagles Nest pit	1 in 1000 + 0.5m	Not constructed	Not constructed	Not constructed	Flood Protection

Note: 'To be determined' refers to the required information being provided either within the transitional period outlined in condition J37 (3 years), or, as per the Levee Action Plan provided to the department on the 18 December 2012, whichever period ends first.

J15	Each regulated structure must be maintained and operated in a manner that is consistent with the current design plan, the current operational plan, and the associated certified 'as constructed' drawings for the duration of its operational life until decommissioned and rehabilitated.
J16	<p>The holder must take reasonable and practicable control measures to prevent the causing of harm to persons, livestock or wildlife through the construction and operation of a regulated structure. Reasonable and practicable control measures may include, but are not limited to:</p> <ul style="list-style-type: none"> a) the secure use of fencing, bunding or screening; and b) escape arrangements for trapped livestock and fauna.
Mandatory reporting level	
J17	The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.
J18	The holder must, as soon as practical and within forty-eight (48) hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.
J19	The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.
Annual inspection report	
J20	Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.
J21	<p>At each annual inspection, the condition and adequacy of all components of the regulated structure must be assessed:</p> <ul style="list-style-type: none"> a) against the most recent hazard assessment report and design plan (or system design plan); b) against recommendations contained in previous annual inspections reports; c) against recognised dam safety deficiency indicators; d) for changes in circumstances potentially leading to a change in hazard category; e) for conformance with the conditions of this authority; f) for conformance with the 'as constructed' drawings; g) for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after 31 May each year but prior to 1 November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems); h) for evidence of conformance with the current operational plan.
J22	A suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and including recommended actions to ensure the integrity of the regulated structure.
J23	The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> .

J24	<p>The holder must:</p> <ul style="list-style-type: none"> a) upon receipt of the annual inspection report, consider the report and its recommendations and take action to ensure that the regulated structure will safely perform its intended function; and b) within twenty (20) business days of receipt of the annual inspection report, notify the administering authority in writing, of the recommendations of the inspection report and the actions being taken to ensure the integrity of each regulated structure.
J25	A copy of the annual inspection report must be provided to the administering authority upon request and within ten (10) business days.
Design storage allowance	
J26	On 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems).
J27	The holder must, as soon as possible and within forty-eight (48) hours of becoming aware that the regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.
J28	The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.
Performance review	
J29	The holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken prior to 1 July of each year.
J30	<p>The holder must take action to modify its water management or linked containment system so as to ensure that the regulated dam or linked containment system will perform in accordance with the requirements of this authority, for the subsequent November to May period.</p> <p><i>Note: Action may include seeking the necessary approvals for physical modification of a regulated dam.</i></p>
Transfer arrangements	
J31	The holder must provide a copy of any reports, documentation and certifications prepared under this authority, including but not limited to any Register of Regulated Structures, hazard assessment, design plan and other supporting documentation, to a new holder and the administering authority on transfer of this authority.

Decommissioning and Rehabilitation	
J32	<p>Prior to the cessation of the environmentally relevant activity, each regulated structure must be decommissioned such that:</p> <ul style="list-style-type: none"> a) ongoing environmental harm is minimised by the regulated structure: <ul style="list-style-type: none"> i) becoming a safe site for humans and animals at the completion of rehabilitation; or ii) becoming a stable landform, that no longer contains flowable substances and minimises erosion impacts; or iii) not allowing for acid mine drainage; or iv) being approved or authorised under relevant legislation for a beneficial use; or v) being a void authorised by the administering authority to remain after decommissioning; and b) the regulated structure is compliant with all other relevant rehabilitation requirements of this authority.
Regulated structure location and performance	
J33	Each regulated structure named in <i>Table 14 – Location and Details of Regulated Dams</i> and <i>Table 16: Details of Regulated Levees</i> must be wholly located within the control points for that structure.
J34	Each regulated dam named in <i>Table 14 – Location and Details of Regulated Dams</i> must be consistent with the details noted in <i>Table 18</i> for that structure.
J35	Each regulated dam named in <i>Table 14 – Location and Details of Regulated Dams</i> , must meet the hydraulic performance criteria noted in <i>Table 15 - Hydraulic Performance of Regulated Dams</i> for that dam.
J36	Each regulated levee named in <i>Table 16 – Details of Regulated Levees</i> must be consistent with the details noted in the columns in <i>Table 16</i> relating to each levee.
Transitional Arrangements	
J37	<p>Each regulated structure specified below must, within a period of three years (the transitional period) from 1 November 2012, meet the performance requirements of conditions J34 and J35 or if a levee, condition J36:</p> <ul style="list-style-type: none"> a) Carlo Levee (new); b) NE Levee; c) NE Levee 2; d) Roper Creek Levee; e) Cockatoo Creek Levee; f) Far South East Levee; and g) WC Levee.
J38	During the transitional period, each regulated structure specified in condition J37 must comply with J34 and J35 or if a levee, condition J36 of this authority or the conditions set out in Schedule K of this authority.

J39	<p>During the transitional period, for each declared regulated structure listed in condition J37, either:</p> <p>a) Certification must be provided, by a suitably qualified and experienced person, in the form set out in the Manual for Assessing Hazard Categories and Hydraulic Performance of Dams:</p> <ul style="list-style-type: none"> i) that the declared regulated structure is suitable for use as a regulated structure and can be transitioned to meet with either conditions J34 and J35 or if a levee, condition J36 of this authority; and ii) of any design plans for the modification of the declared regulated structure where modification is required to meet with either conditions J34 and J35 or if a levee, condition J36 of this authority; or <p>b) The declared regulated structure must be decommissioned.</p>
Schedule K - Regulated Structures (Dams and Levees) – Transitional Conditions	
K1	The hazard category of each dam must be determined by a suitably qualified and experienced person at least once in each two year period.
K2	Dams having a hazard category determined to be significant or high must be specifically authorised by an environmental authority.
K3	<p>Where the hazard category determined to be significant or high (i.e a regulated dam), the holder of the environmental authority must act immediately to ensure:</p> <ul style="list-style-type: none"> a) the administering authority is advised of the current location and details of that dam; and b) the dam meets the hydraulic performance required of the assessed hazard category within eighteen months of that assessment or a Transitional Environmental Program is put in place.
K4	The following regulated dams are to be located within the control points defined in <i>Table 17: Location of Regulated Dams (Transitional)</i> .

Table 17: Location of Regulated Dams (Transitional)

Name of Regulated Dam	Easting (GDA94)	Northing (GDA94)
Tailings Dam 1	681,240	7,460,410
	681,420	7,460,510
	681,730	7,460,200
	671,550	7,460,050
Tailings Dam 2	681,000	7,461,160
	681,170	7,461,280
	681,410	7,460,570
	681,220	7,460,470

K5	The following regulated dams are to be used in accordance with <i>Table 18: Specification of Regulated Dams (Transitional)</i> .
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Table 18: Specification of Regulated Dams (Transitional)

Name of Regulated Dam	Hazard Category	Maximum surface area of dam (ha)	Maximum volume of dam (m ³)	Maximum depth of dam (m)	Use of dam
Tailings Dam 1	To be determined	12.8	2,200,000	30	Permanent containment of tailings
Tailings Dam 2	To be determined	17.3	3,700,000	30	Permanent containment of tailings

K6	The following regulated dams are to be operated in accordance with <i>Table 19: Hydraulic Performance of Regulated Dams (Transitional)</i> .
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Table 19: Hydraulic Performance of Regulated Dams (Transitional)

Name of Regulated Dam	Spillway capacity	Design Storage Allowance	Mandatory Report Level
Tailings Dam 1	To be determined	To be determined	To be determined
Tailings Dam 2	To be determined	To be determined	To be determined

K7	Construction of a regulated dam must not be commenced unless: <ul style="list-style-type: none"> a) the holder of this environmental authority has submitted to the administering authority two copies of a design plan, together with the certification of a suitably qualified and experienced person that the design of the regulated dam will deliver the performance stated in the submitted design plan and that dam is compliant in all respects with this environmental authority; and b) at least twenty (20) business days has passed since the receipt of those documents, or the administering authority notifies the holder of this environmental authority that a design plan and certification has been submitted for that dam.
K8	When construction or modification of any regulated dam is complete, or within 12 months of a dam becoming a regulated dam by virtue of a hazard assessment, the holder of this environmental authority must submit to the administering authority two copies of a set of 'as constructed' drawings, together with the certification by a suitably qualified and experienced person that the dam 'as constructed' is fit for purpose, compliant in all respects with this environmental authority, and in accordance with accepted engineering standards.
K9	The holder of this environmental authority must ensure that there is always a current operational plan for each regulated dam, which may form part of other plans required by legislation.
K10	The holder of this environmental authority must notify the administering authority as soon as possible, but within 24 hours, of the level in any regulated dam reaching the mandatory reporting level (MRL); and must immediately act to prevent or minimise any actual or potential environmental harm.
K11	Each regulated dam must be inspected annually by a suitably qualified and experienced person.

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K12	At each annual inspection, the condition and adequacy of each regulated dam must be assessed for dam safety and against the necessary structural, geotechnical and hydraulic performance criteria.
K13	At each annual inspection, if mandatory reporting level is required, it must be determined and marked on each regulated dam.
K14	A final assessment of adequacy of available storage in each regulated dam must be based on a dam level observed within the month of October and result in an estimate of the level in that dam as at 1 November.
K15	For each annual inspection, two copies of a report of the condition and adequacy of each regulated dam, certified by the suitably qualified and experienced person and including any recommended actions to be taken to ensure the integrity of each regulated dam, must be provided to the administering authority by 1 December each year.
K16	The permit holder must, within one week of receipt of the annual inspection report, consider the report and its recommendations; and as soon as possible, but within one month of receipt of the annual inspection report, formulate and implement actions to ensure that each regulated dam safely performs its intended functions.
K17	On cessation of operation of any dam, the dam must be maintained so as to avoid environmental harm until that dam is decommissioned.
K18	Prior to the cessation of the environmentally relevant activity, each dam must be decommissioned such that it is either: <ul style="list-style-type: none"> a) becomes a stable landform, that no longer contains flowable substances; or b) is approved or authorised under relevant legislation for a beneficial use; or c) is a void authorised by the administering authority to remain after decommissioning; and d) is compliant with the rehabilitation requirements for this environmental authority.
K19	The holder of the environmental authority must ensure any activities associated with this environmental authority do not compromise the integrity of any levee, either within the operational land or adjacent to the operation land.
K20	The holder of this environmental authority must ensure that each new levee is designed, constructed, operated and maintained in accordance with accepted engineering standards and is fit for the purpose for which it is intended (see Figure 11- <i>Levee locations</i>).
K21	The hazard category of each levee must be assessed by a suitably qualified and experienced person prior to construction and at least once per year, based on documented evidence sufficient to define or confirm the current nature and extent of environmental consequences for potential failure of that levee.
K22	The Foxleigh mine flood protection must have a constructed protection height that is equal to or exceeds the predicted 1 in 1000 year AEP event flood level + 0.5m.
K23	Geomechanical cracking associated with the excavation of the low wall or any other mining activity is not permitted within a 30 metre buffer zone on the mine site side toe of the levee at Foxleigh mine.
K24	The holder of the environmental authority must ensure that the low wall at the mine side margin of the 30m buffer zone of the levee remains stable with a factor of safety of 1.5 or above based on an accepted stability analysis method.

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K25	<p>The holder of this environmental authority must not commence construction of any levee unless:</p> <ol style="list-style-type: none"> the holder has submitted to the administering authority two copies of a design plan, together with the certification of a suitably qualified and experienced person that the design of the levee is fit for the purpose for which the levee is intended, as stated in the hazard assessment accompanying the plan, and compliant in all respects with this environmental authority; and At least twenty (20) business days has passed since the receipt of those documents, or the administering authority has advised the holder that those documents are compliant with this condition.
K26	<p>When construction or modification of any levee is complete the holder of this environmental authority must submit to the administering authority two copies of a set of 'as constructed' drawings, together with the certification by a suitably qualified and experienced person that the levee 'as constructed' is fit for the purpose stated in the hazard assessment and the design plan, if the latter exists, and is compliant in all respects to this environmental authority.</p>
K27	<p>The holder of this environmental authority must ensure that there is always a current operational plan for each levee, which may form part of the plan of operations as required by legislation.</p>
K28	<p>The operation plan must cover all matters relevant to the operation and maintenance of the levee such as to maintain compliance in all respects with this environmental authority. For Foxleigh mine the operational plan must include:</p> <ol style="list-style-type: none"> A documented procedure for surveillance of the levee and its adjacent areas to detect and report to the administering authority in advance of and during mining operations any ground movement that will or may compromise the integrity of the levee; and Drawings describing the lines and dimensions of the phases of mining activities in the vicinity of the levee.
K29	<p>Levees shall be inspected and assessed by a suitably qualified and experienced person as soon as possible, if at any time unusual conditions are observed by the holder of this environmental authority or their agents.</p>
K30	<p>Remedial works identified as being required during inspections and assessments conducted under condition K29, must be notified in writing to the administering authority within ten (10) business days of the completion of the inspection, and commenced within thirty (30) business days unless otherwise agreed in writing by the administering authority.</p>
K31	<p>The holder of this environmental authority must arrange for each levee to be inspected annually by a suitably qualified and experienced person who must certify that the documented procedure for surveillance of the levee has been applied in accordance with any relevant procedures, that there has been no erosion, cracking or vertical or horizontal deformation that has impacted on the integrity of the levee, and that the levee has been maintained in accordance with the certified design plan.</p>
K32	<p>At each annual inspection the condition of each levee must be assessed in accordance with the certified design and current operational plan. Any recommended actions must be conveyed to the holder of this environmental authority in an annual inspection report.</p>
K33	<p>The holder of this environmental authority must take immediate action in response to the recommendations arising from an annual inspection of the condition and adequacy of the levee.</p>
K34	<p>For each annual inspection, two copies of a report certified by a suitably qualified and experienced person, including any recommended actions to be taken, must be provided to the administering authority by 1 December.</p>

K35	The following levees are to be located along the control points defined in <i>Table 20: Location of Levees (Transitional)</i> .
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Table 20: Location of Levees (Transitional)

Name of Levee	Easting (GDA94)	Northing (GDA94)
Carlo Levee (new)	685,270	7,458,840
	686,650	7,456,610
	687,070	7,456,900
	686,120	7,459,540
NE Levee	679,580	7,464,000
	679,460	7,464,110
	680,260	7,465,030
	680,610	7,464,900
	681,350	7,464,830
	681,890	7,461,920
NE Levee 2	680,960	7,464,190
	681,600	7,463,020
	681,890	7,461,920
Roper Creek Levee	685,140	7,454,760
	685,000	7,454,610
	685,120	7,454,420
	685,200	7,454,230
	686,000	7,453,320
	686,160	7,453,480
Cockatoo Creek Levee	684,370	7,460,020
	684,300	7,459,710
	684,340	7,459,520
	684,430	7,459,390
Far South East Levee	685,250	7,455,330
	685,660	7,455,160
	685,750	7,455,050
	686,260	7,454,160
	686,340	7,453,940
	686,360	7,453,580
	686,170	7,453,480
Carlo Creek Levee (old)	685,270	7,458,830
	685,680	7,458,150
	685,970	7,458,300
	686,030	7,458,720
	686,100	7,458,960
	686,150	7,459,360
	686,110	7,459,360
WC Levee	683,620	7,457,300
	683,680	7,457,300
	683,940	7,457,170
	684,120	7,456,950
	684,530	7,456,520

K36	<p>Prior to the cessation of the environmentally relevant activity, each levee must be decommissioned such that it:</p> <ul style="list-style-type: none"> a) becomes part of a stable landform, and b) is compliant with the rehabilitation requirements for this environmental authority
Schedule L - Aboriginal Cultural Heritage	
L1	<p>No excavation, construction or other activity that may cause harm to Aboriginal cultural heritage may take place within the project site (comprising ML70171, ML70309, ML70310, ML70429, ML70430, ML70431 and ML70470) without the development and approval of a cultural heritage management plan for the project site under the <i>Aboriginal Cultural Heritage Act 2003</i>.</p>

Definitions

Words and phrases used throughout this environmental authority are defined below. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority, the definitions in the *Environmental Protection Act 1994*, its regulations, subordinate legislation and environmental protection policies must be used.

‘acid rock drainage’ means any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture.

‘Administering authority’ means the Department of Environment and Heritage Protection or its successor.

‘airblast overpressure’ means energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dBL).

‘Annual exceedance probability’ or ‘AEP’ means the probability that at least one event in excess of a particular magnitude will occur in any given year.

‘appropriately qualified person’ means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

‘assessed’ and ‘assessment’ by a suitably qualified and experienced person in relation to a hazard assessment of a dam, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment:

- a) exactly what has been assessed and the precise nature of that determination;
- b) the relevant legislative, regulatory and technical criteria on which the assessment has been based;
- c) the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and
- d) the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.

‘associated works’ means in relation to a dam,

- a) operations of any kind and all things constructed, erected or installed for that dam; and
- b) any land used for those operations.

‘authority’ means an environmental authority.

‘background’, with reference to the water schedule means the average of samples taken prior to the commencement of mining from the same waterway that the current sample has been taken.

‘blasting’ means the use of explosive materials to fracture:

- a) rock, coal and other minerals for later recovery; or
- b) structural components or other items to facilitate removal from a site or for reuse.

‘certification’ means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by this manual, including design plans, ‘as constructed’ drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy Certification by RPEQs (ID: 1.4 (2A)).

‘certifying’, ‘certify’ or ‘certified’ have a corresponding meaning as ‘certification’.

‘chemical’ means:

- a) an agricultural chemical product or veterinary chemical product within the meaning of the *Agricultural and Veterinary Chemicals Code Act 1994* (Commonwealth); or
- b) a dangerous good under the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Australian Transport Council; or
- c) a lead hazardous substance within the meaning of the Workplace Health and Safety Regulation 1997;
- d) a drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Ministers’ Advisory Council and published by the Commonwealth; or
- e) any substance used as, or intended for use as:
 - i. a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product; or
 - ii. a surface active agent, including, for example, soap or related detergent; or
 - iii. a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide; or
 - iv. a fertiliser for agricultural, horticultural or garden use; or
 - v. a substance used for, or intended for use for mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or
 - vi. manufacture of plastic or synthetic rubber.

‘commercial place’ means a workplace used as an office or for business or commercial purposes, which is not part of the mining activity and does not include employees’ accommodation or public roads.

‘construction’ or **‘constructed’** in relation to a regulated structure includes building a new regulated structure and lifting or otherwise modifying an existing regulated structure, but does not include investigations and testing necessary for the purpose of preparing a design plan.

‘dam’ means a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and **associated works**. A dam does not mean a fabricated or manufactured tank or container, designed and constructed to an Australian Standard that deals with strength and structural integrity of that tank or container.

‘dam crest volume’ means the volume of material (liquids and/or solids) that could be within the walls of a dam at any time when the upper level of that material is at the crest level of that dam. That is, the instantaneous maximum volume within the walls, without regard to flows entering or leaving (eg via spillway).

‘design storage allowance’ or **‘DSA’** means an available volume, estimated in accordance with the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)* published by the administering authority, must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an annual exceedance probability (AEP) specified in that manual.

‘designer’ for the purposes of a regulated dam, means the certifier of the design plan for the regulated dam.

‘disturbance’ of land includes:

- a) compacting, removing, covering, exposing or stockpiling of earth;
- b) removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion;
- c) carrying out mining within a watercourse, waterway, wetland or lake;
- d) the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls;
- e) temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be removed after the mining activity has ceased; or
- f) releasing of contaminants into the soil, or underlying geological strata.

However, the following areas are not included when calculating areas of ‘disturbance’:

- a) areas off lease (e.g. roads or tracks which provide access to the mining lease);
- b) areas previously disturbed which have achieved the rehabilitation outcomes;

- c) by agreement with the administering authority, areas previously disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);
- d) areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be left by agreement with the landowner.
- e) disturbance that pre-existed the grant of the tenure.

'EC' means electrical conductivity.

'effluent' means treated waste water released from sewage treatment plants.

'emergency action plan' means documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam owners to annually update contact details that are part of the plan, and to comprehensively review the plan at least every five years.

'Environmental authority' means environmental authority granted in relation to an environmentally relevant activity under the *Environmental Protection Act 1994*.

'Environmental authority holder' means the holder of this environmental authority.

'Flowable substance' means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.

'hazard' means in relation to a dam as defined, means the potential for environmental harm resulting from the collapse or failure of the dam to perform its primary purpose of containing, diverting or controlling flowable substances.

'hazard category' means a category, either low significant or high, into which a dam is assessed as a result of the application of tables and other criteria in 'Manual for Assessing Hazard Categories and Hydraulic Performance of Dams'.

'Holder' means any person who is the holder of, or is acting under, that environmental authority.

'hydraulic performance' means the capacity of a regulated dam to contain or safely pass flowable substances based on a probability (AEP) of performance failure specified for the relevant hazard category in the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)*.

'infrastructure' means water storage dams, levees,, roads and tracks, buildings and other structures built for the purpose of the mining activity.

'land' in the 'land schedule' of this document means land excluding waters and the atmosphere, that is, the term has a different meaning from the term as defined in the *Environmental Protection Act 1994*. For the purposes of the *Acts Interpretation Act 1954*, it is expressly noted that the term 'land' in this environmental authority relates to physical land and not to interests in land.

'land use' –means the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

'leachate' means a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of at the operational land which contains soluble, suspended or miscible contaminants likely to have been derived from the said material.

'levee' means an embankment that only provides for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of **water** or **flowable substances** at any other times.

'licensed place' means the mining activities carried out at the mining tenements detailed in Table # (page #) of this environmental authority.

'Low hazard dam' means any dam that is not a high or significant hazard category as assessed using the Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635).

'm' means metres.

'mandatory reporting level' or 'MRL' means a warning and reporting level determined in accordance with the criteria in the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)* published by the administering authority.

'mine affected water':

- a) means the following types of water:
 - i) pit water, tailings dam water, processing plant water;
 - ii) water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2008 if it had not formed part of the mining activity;
 - iii) rainfall runoff which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to manage such runoff, provided that this water has not been mixed with pit water, tailings dam water, processing plant water or workshop water;
 - iv) groundwater which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated;
 - v) groundwater from the mine's dewatering activities;
 - vi) a mix of mine affected water (under any of paragraphs i)-v) and other water.
- b) does not include surface water runoff which, to the extent that it has been in contact with areas disturbed by mining activities that have not yet been completely rehabilitated, has only been in contact with:
 - i) land that has been rehabilitated to a stable landform and either capped or revegetated in accordance with the acceptance criteria set out in the environmental authority but only still awaiting maintenance and monitoring of the rehabilitation over a specified period of time to demonstrate rehabilitation success; or
 - ii) land that has partially been rehabilitated and monitoring demonstrates the relevant part of the landform with which the water has been in contact does not cause environmental harm to waters or groundwater, for example:
 - 1) areas that are been capped and have monitoring data demonstrating hazardous material adequately contained with the site;
 - 2) evidence provided through monitoring that the relevant surface water would have met the water quality parameters for mine affected water release limits in this environmental authority, if those parameters had been applicable to the surface water runoff; or
 - iii) both.

'measures' includes any measures to prevent or minimise environmental impacts of the mining activity such as bunds, silt fences, diversion drains, capping, and containment systems.

'modification or modifying' (see definition of 'construction')

'NATA' means National Association of Testing Authorities, Australia.

'natural flow' means the flow of water through waters caused by nature.

'non polluting' means having no adverse impacts upon the receiving environment.

'Operational plan' for a dam means a document that amongst other things sets out procedures and criteria to be used for operating a dam during a particular time period. The operational plan as defined herein may form part of a plan of operations or plan otherwise required in legislation.

'peak particle velocity (ppv)' means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mm/s).

'Probable Maximum Flood (PMF)' means the flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in a particular drainage area.

'protected area' means – a protected area under the *Nature Conservation Act 1992*; or

- a) a marine park under the *Marine Parks Act 1992*; or
- b) a World Heritage Area.

'receiving environment' in relation to an activity that causes or may cause environmental harm, means the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to):

- a) a watercourse;
- b) groundwater; and
- c) an area of land that is not specified in Schedule 1 – Figure 1 of this environmental authority.

'receiving waters' means the waters into which this environmental authority authorises releases of mine affected water.

'regulated dam' means any dam in the significant or high hazard category as assessed using the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)* published by the administering authority.

'rehabilitation' the process of reshaping and revegetating land to restore it to a stable landform

'release event' means a surface water discharge from mine affected water storages or contaminated areas on the licensed place.

'RL' means reduced level, relative to mean sea level as distinct from depths to water.

'representative' means a sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the mining activities.

'saline drainage' The movement of waters, contaminated with salts, as a result of the mining activity.

'sensitive place' means:

- a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- b) a motel, hotel or hostel; or
- c) an educational institution; or

- d) a medical centre or hospital; or
- e) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or
- f) a public park or gardens.

Note: The definition of 'sensitive place' and 'commercial place' is based on Schedule 1 of EPP Noise. That is, a sensitive place is inside or outside on a dwelling, library & educational institution, childcare or kindergarten, school or playground, hospital, surgery or other medical institution, commercial & retail activity, protected area or an area identified under a conservation plan under *Nature Conservation Act 1992* as a critical habitat or an area of major interest, marine park under *Marine Parks Act 2004*, park or garden that is outside of the mining lease and open to the public for the use other than for sport or organised entertainment. A commercial place is inside or outside a commercial or retail activity.

A mining camp (i.e., accommodation and ancillary facilities for mine employees or contractors or both, associated with the mine the subject of the environmental authority) is not a sensitive place for that mine or mining project, whether or not the mining camp is located within a mining tenement that is part of the mining project the subject of the environmental authority. For example, the mining camp might be located on neighbouring land owned or leased by the same company as one of the holders of the environmental authority for the mining project, or a related company. Accommodation for mine employees or contractors is a sensitive place if the land is held by a mining company or related company, and if occupation is restricted to the employees, contractors and their families for the particular mine or mines which are held by the same company or a related company.

For example, a township (occupied by the mine employees, contractors and their families for multiple mines that are held by different companies) would be a sensitive place, even if part or all of the township is constructed on land owned by one or more of the companies.

'spillway' means a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the dam, normally under flood conditions or in anticipation of flood conditions.

'suitably qualified and experienced person' in relation to regulated structures means a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, and has demonstrated competency and relevant experience:

- a) for regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design.
- b) for regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments.

Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in geomechanics, hydraulic design or engineering hydrology.

'structure' in relation to regulated structures means dam or levee.

'system design plan' means a plan that manages an integrated containment system that shares the required DSA volume across the integrated containment system.

'the Act' means the *Environmental Protection Act 1994*.

'µS/cm' means micro siemens per centimetre.

'Void' means any constructed, open excavation in the ground.

'watercourse' has the same meaning given in the *Water Act 2000*.

'water quality' means the chemical, physical and biological condition of water.

'waters' includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), storm water channel, storm water drain, and groundwater and any part thereof.

‘Water year’ means the 12-month period from 1 July to 30 June.

‘Wet season’ means the time of year, covering one or more months, when most of the average annual rainfall in a region occurs. For the purposes of DSA determination this time of year is deemed to extend from 1 November in one year to 31 May in the following year inclusive.

END OF DEFINITIONS

Released under the RTI Act 2009 - EHP

Appendix 1

Figure 1 – Approved and proposed mining activities for ML70171, ML70309 and ML70310

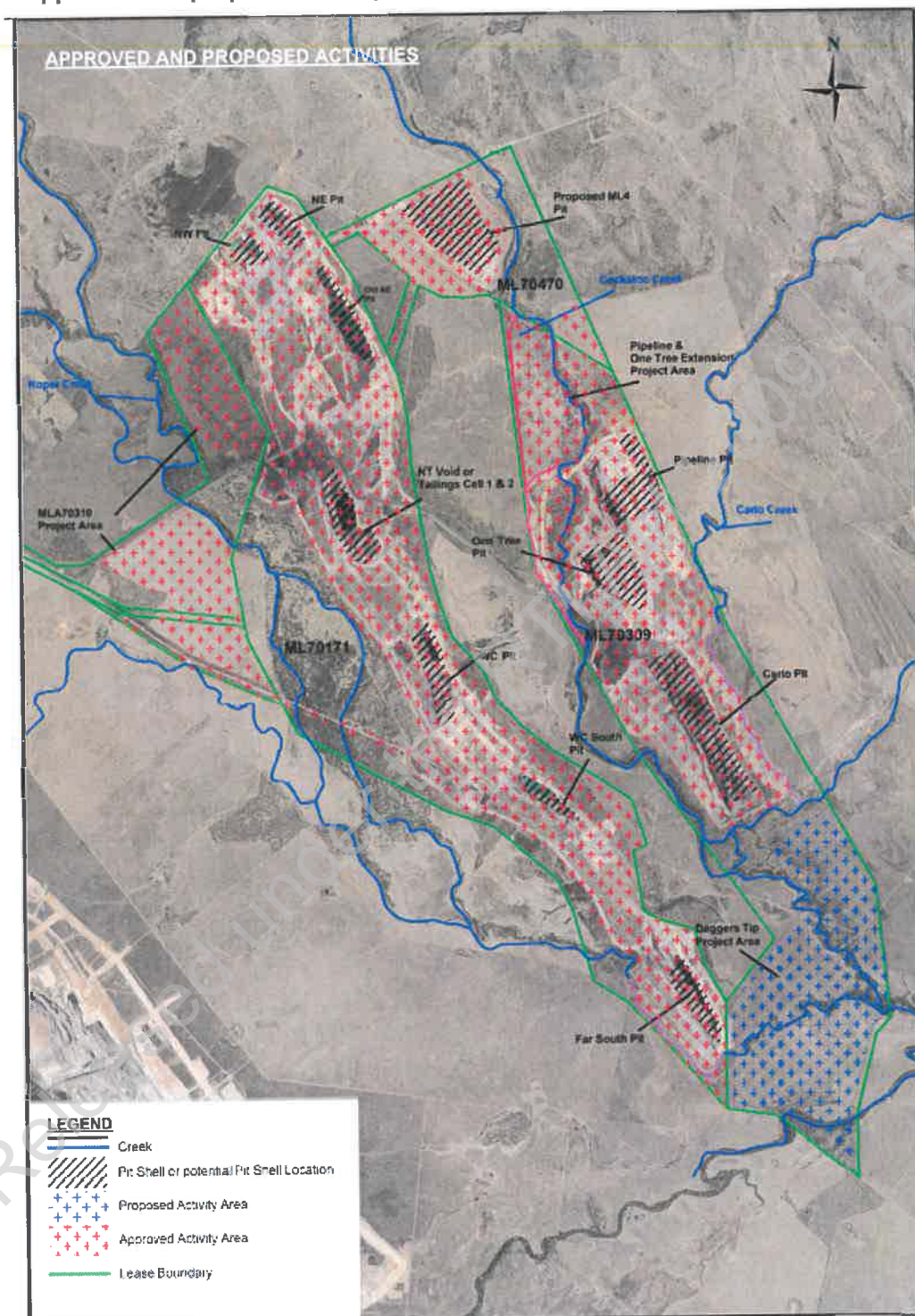


Figure 2 – Proposed mining activities ML70470

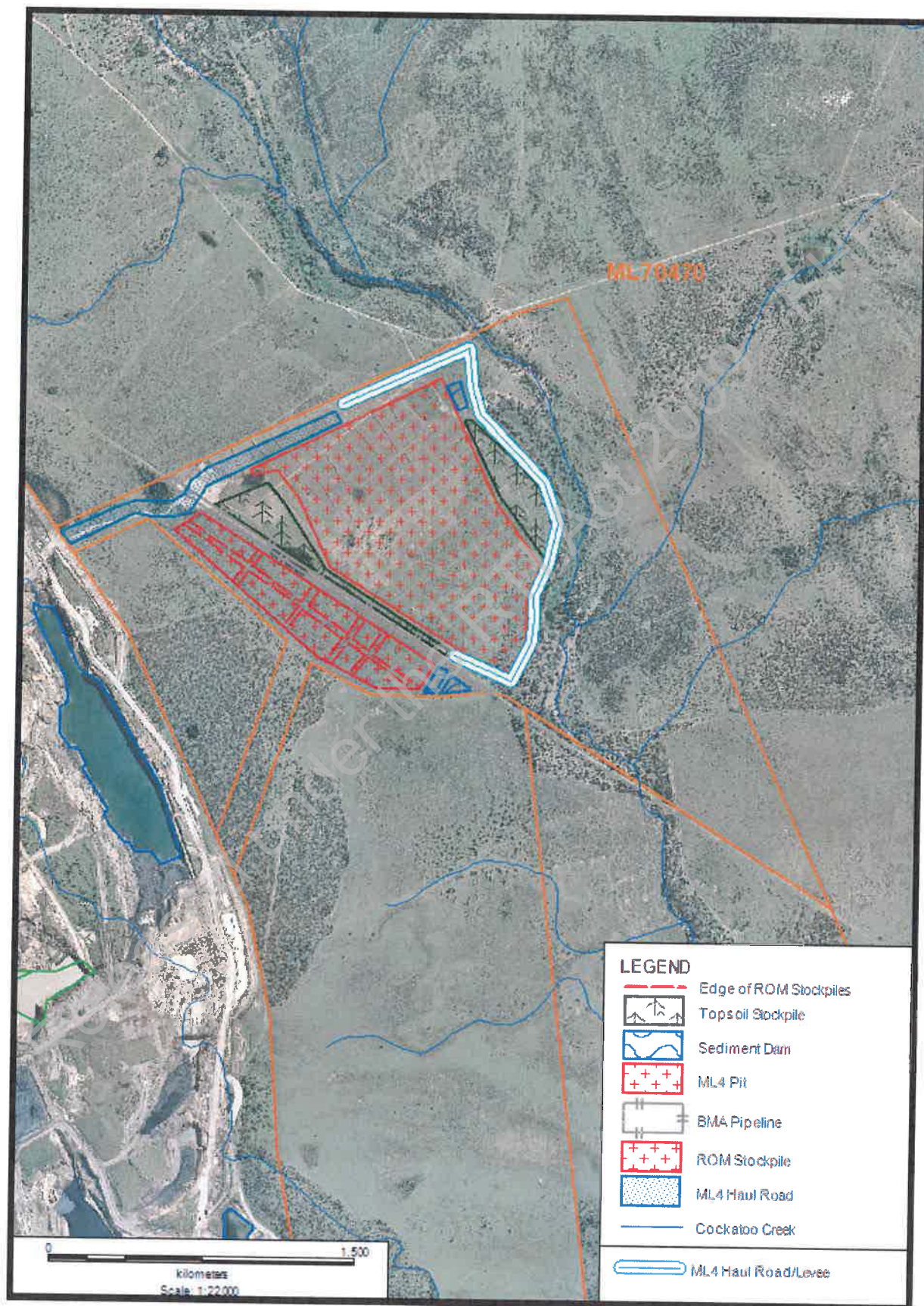


Figure 3 – Existing and proposed mining activities ML70310

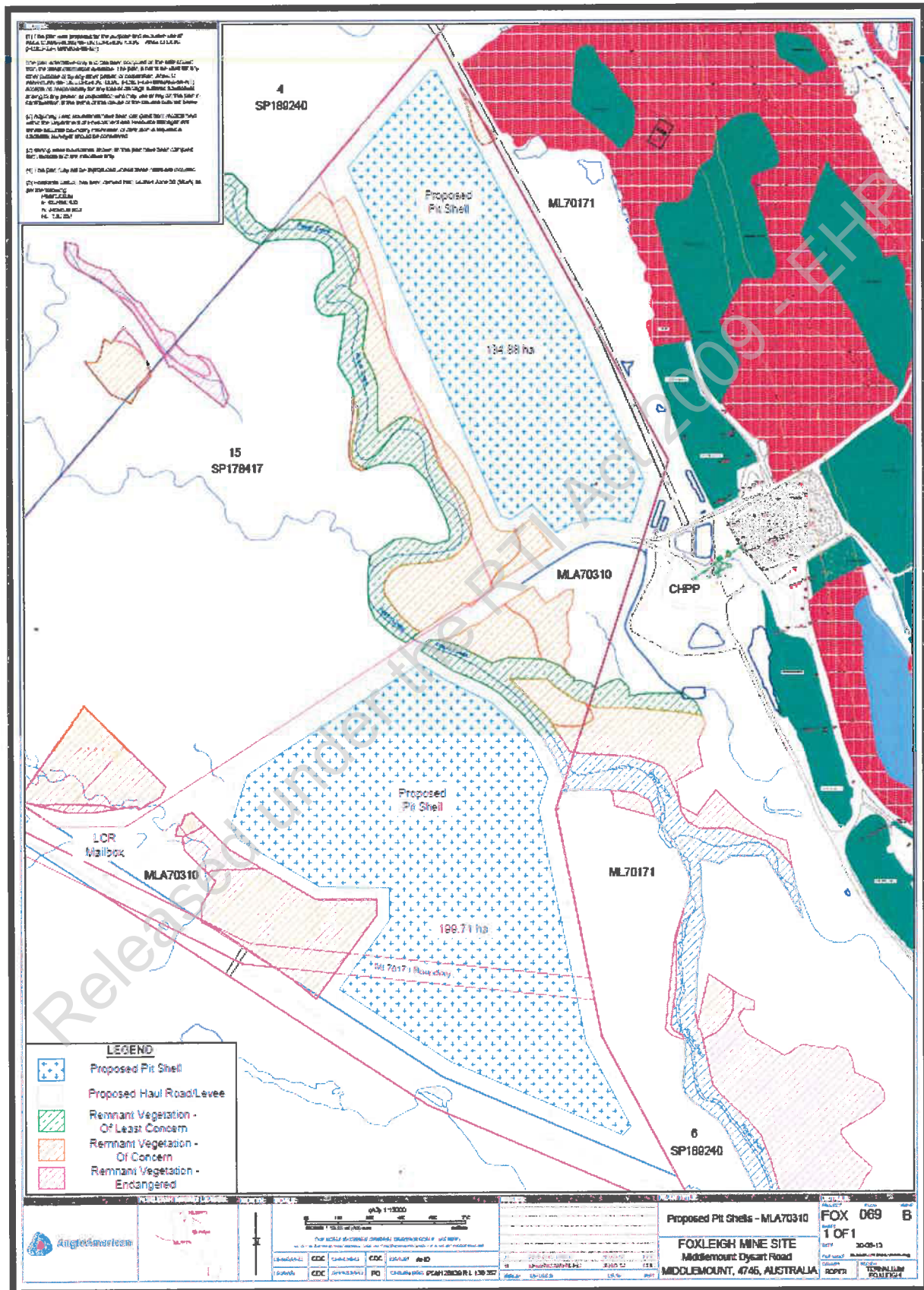


Figure 4 – Proposed mining activities and project infrastructure layout – mine area ML70429, ML70430, ML70431 (Foxleigh Plains)

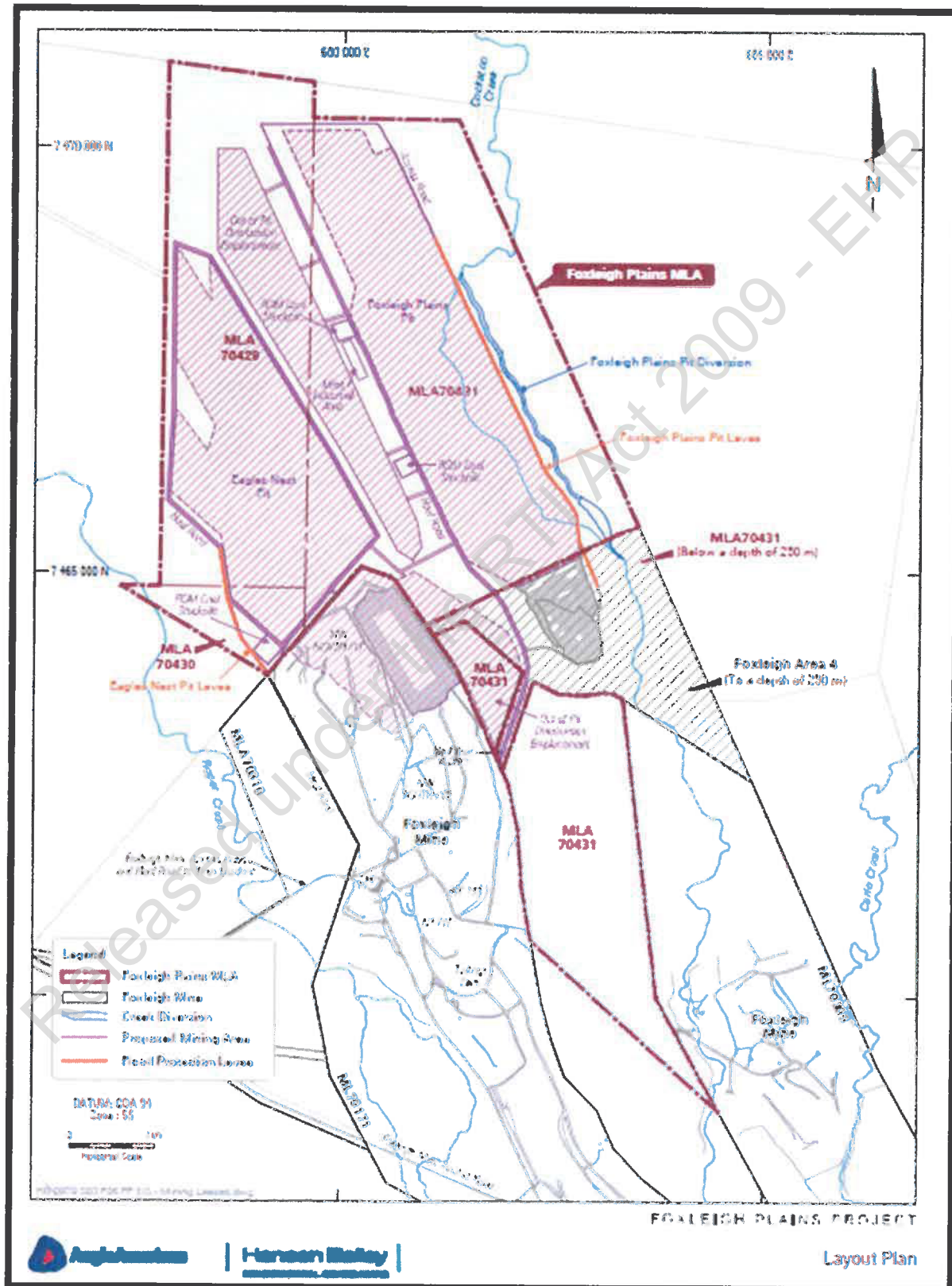


Figure 5 – Proposed Project infrastructure layout – support infrastructure, Mine industrial area adjacent Foxleigh Plains Pit area

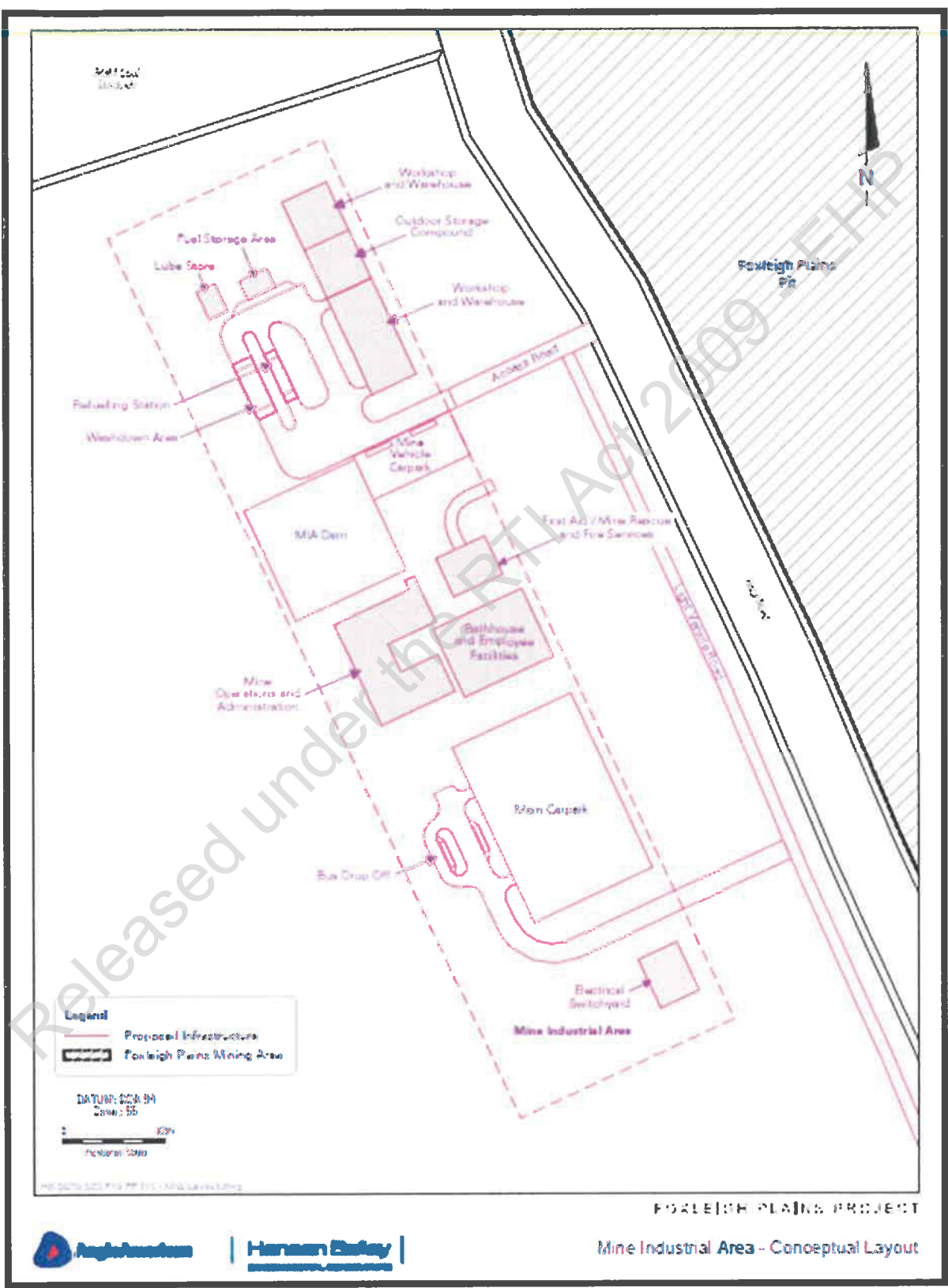


Figure 6 – Groundwater Monitoring Locations (Bores)



Figure 7 – Release Point and Monitoring Point Locations

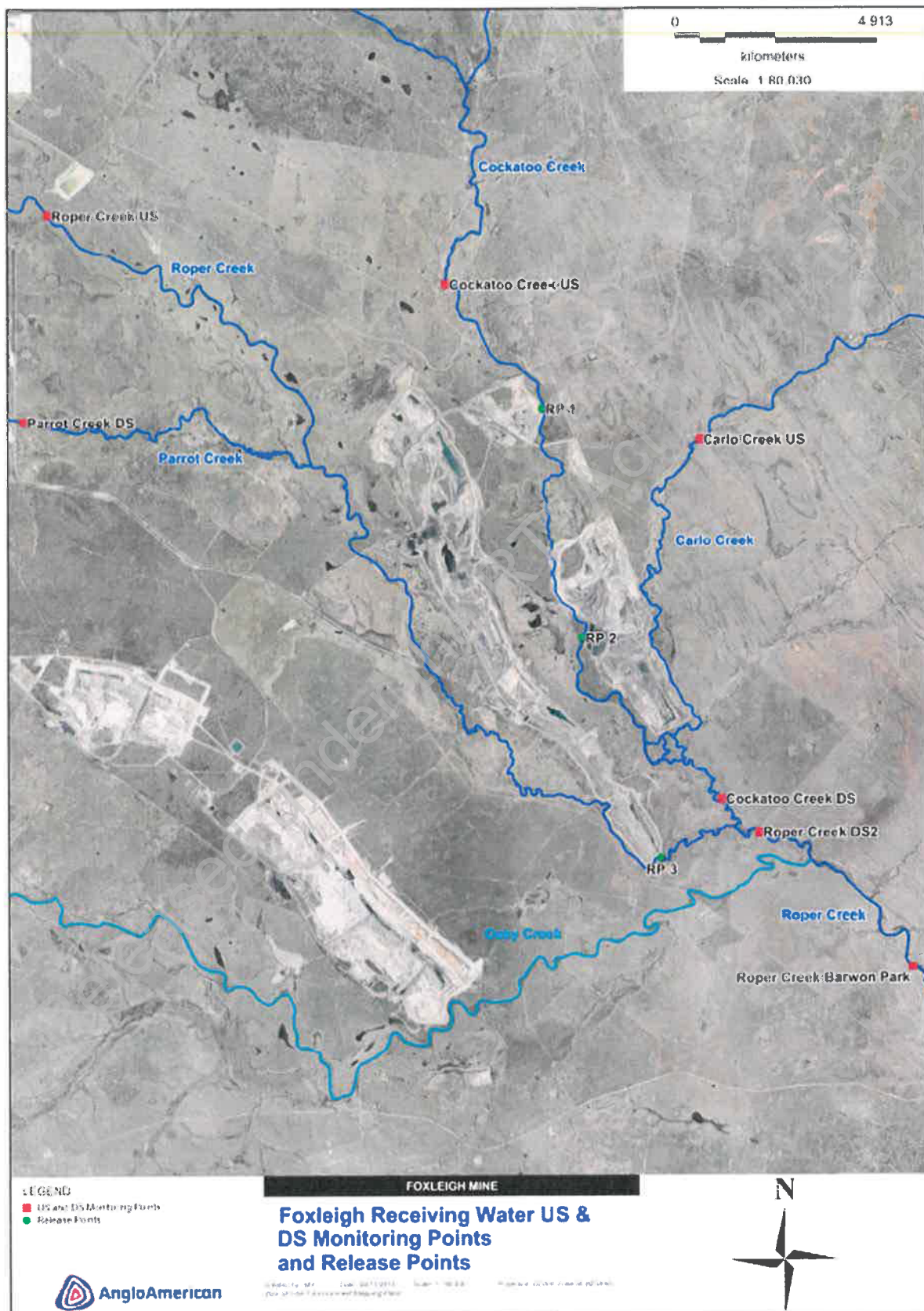


Figure 8 – Location of existing and proposed levees on ML70309, ML70171, ML70470, MLA70310

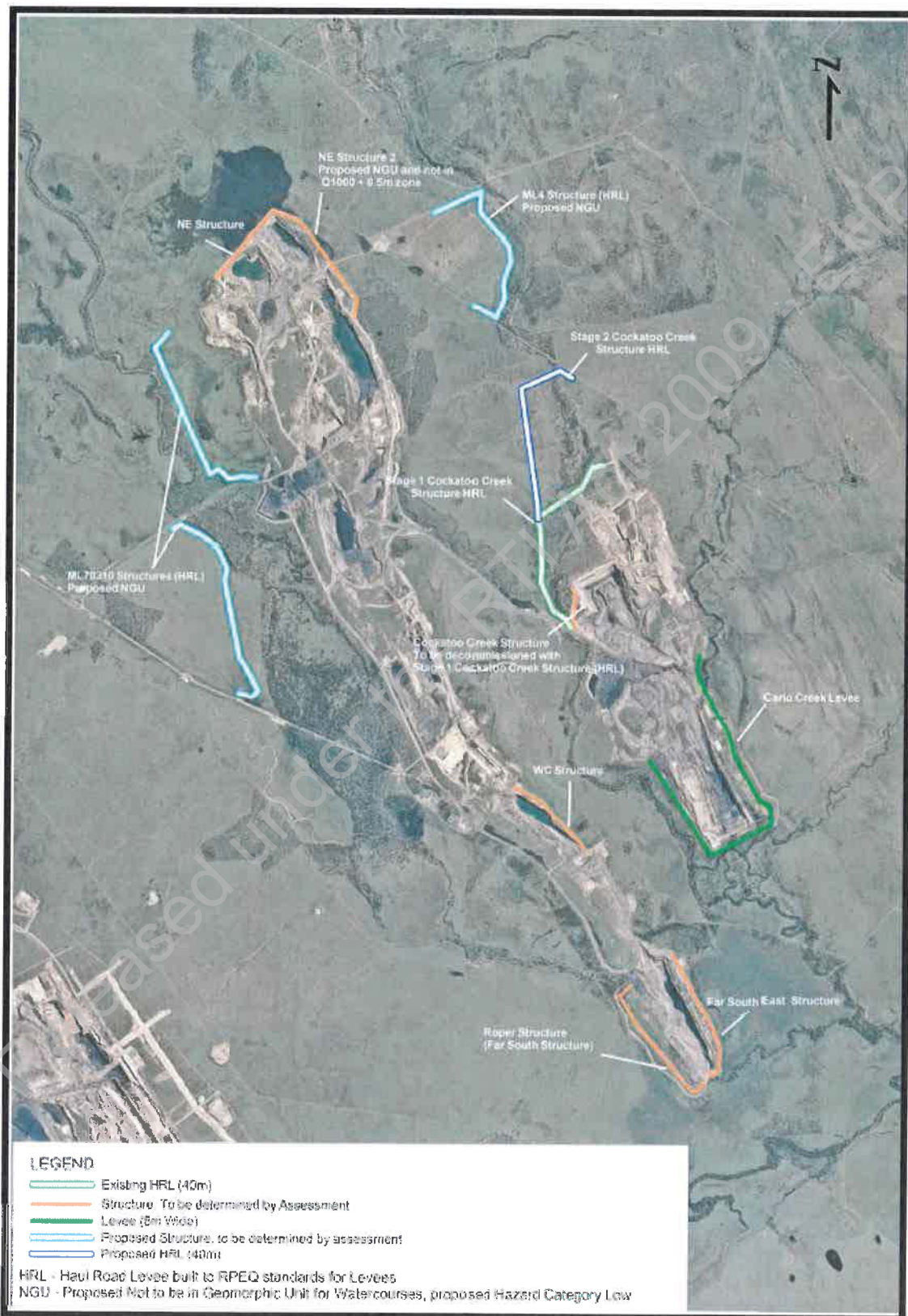


Figure 9 – Proposed levee locations on ML70429, ML70430 and ML70431.

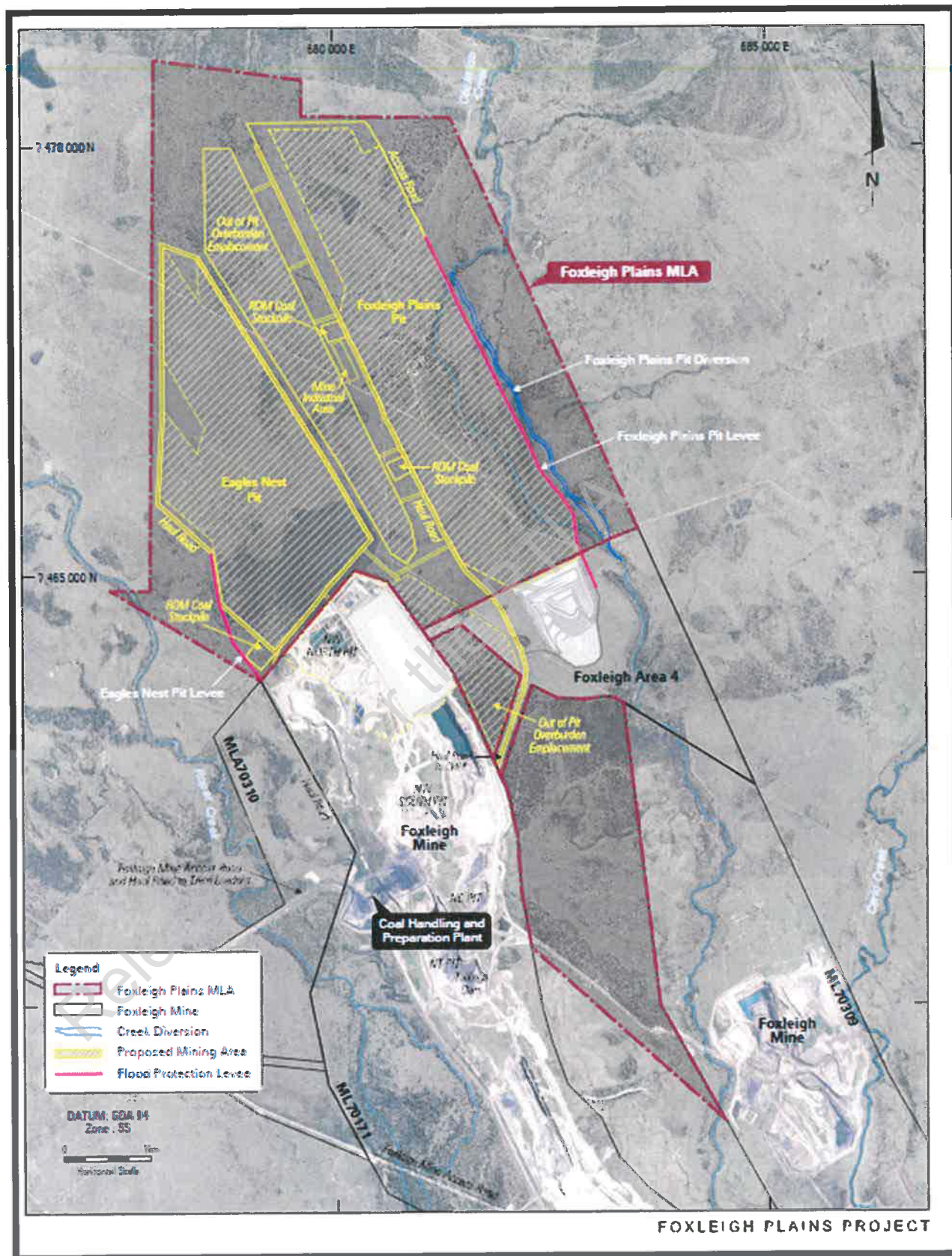


Figure 10 – Location of regulated dams (Note: map identification numbers are for Table 14)

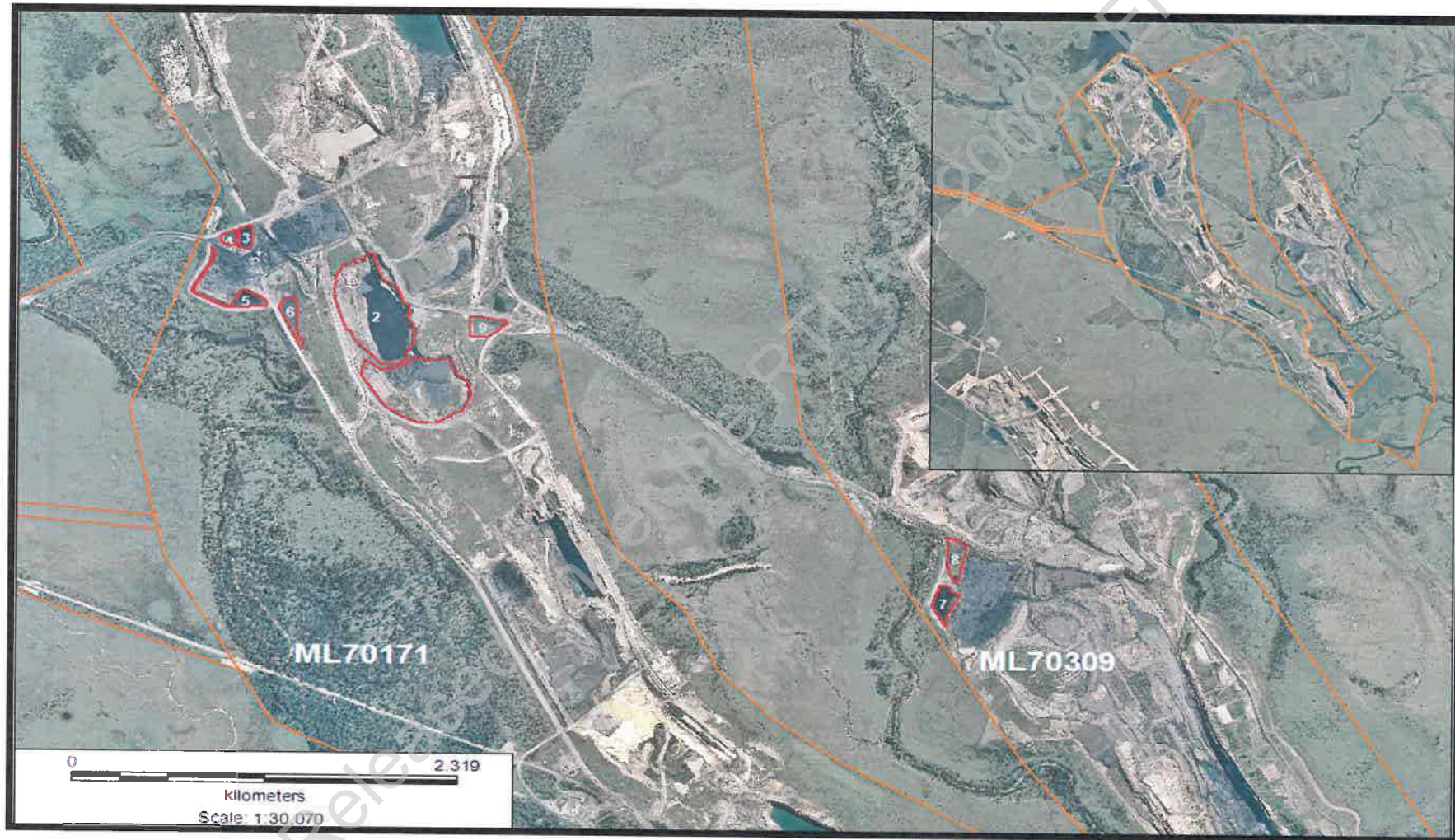


Figure 11: Appendix 5 of previous EA - Existing and Proposed Levee Locations (Transitional)



Appendix 2:

Rehabilitation Requirements

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
All mine surface features	<p>Infrastructure areas:</p> <ul style="list-style-type: none"> Raw and mine-affected water storage dams Roads and tracks ROM stockpile areas MIA (workshops and associated laydown, hardstand, fuel storage, washdown bay areas) CHPP Administration offices Explosive magazine Power reticulation network Fencing <p>Mining areas:</p> <ul style="list-style-type: none"> Residual Voids Spoil emplacement areas Mine residue storage areas 	<ol style="list-style-type: none"> Safe for humans and wildlife Non polluting Stable Able to sustain agreed post-mining land use 	<p>To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.</p> <p>Where agricultural land use applies, to return self-sustaining grazing land that is sustainable and economically viable.</p>	<p>Infrastructure removed as required and revegetated to a light grazing post mining land use.</p> <p>Potential for erosion of waste dump slopes is reduced by correct spoil placement and functional drainage.</p> <p>Adequate access areas used for agriculture that can be maintained into the future. Suitable vegetation is planted for agricultural uses.</p> <p>Adequate shade and water is available for stock use.</p> <p>Topsoil spread minimum 15cm depth, with no bare areas greater than 100m². Ripping to a minimum depth of 50cm at 1m spacing.</p> <p>Revegetation seed mix complies with final agreed land use.</p>	<p>Any infrastructure that is to remain post closure, shall have a written agreement between the post mining land owner and Anglo Coal (Foxleigh Management) Pty Ltd.</p> <p>Surface water run off quality is similar to the water quality of the surrounding catchment and within the EA conditions.</p> <p>Infrastructure areas land reshaped to slope range <10%. Adequate erosion control structures have been installed, with no sites of significant wind or gully erosion that will cause harm to fauna.</p> <p>Vegetation established across areas with a suitable species mix for the agreed final land use. Areas where agricultural land use applies, have pasture grass species present and provide stock with nutritional requirements, as well as being capable of setting viable seed and flowering similar to reference sites in the Middlemount area and/or with a land suitability class (grazing) of 4.</p>

Environmental authority EPML00744813 – Foxleigh Mine

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
Mining areas	Residual voids	<ol style="list-style-type: none"> 1. Safe for humans and wildlife 2. Non polluting 3. Stable 4. Able to sustain agreed post-mining land use 	Residual void water bodies are able to be accessed by wildlife, used for water supplies and/or used as recreational facilities according to the final land use for that area.	<p>Stable highwalls left standing at the slope created by the final blast and a diversion bank provided at the top for safety and drainage.</p> <p>Any exposed coal seam covered with material to minimise highly saline water leaching into void water stores.</p> <p>Drains constructed to redirect surface water from flowing over the highwall or lowwall.</p> <p>Geotechnical stability and risk assessments conducted to determine the appropriate treatments prior to closure.</p>	<p>Final voids reshaped to a slope range of <70% for competent material or <45% for non-competent material or as stated in an appropriate risk assessment conducted by a suitably qualified person.</p> <p>Drainage structures along highwalls and lowwalls have been revegetated, with water drainage that flows naturally without pooling or flooding.</p>
	Spoil emplacement areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	<p>Outer spoil slopes reshaped to 17%. Internally draining spoil slopes reshaped to <45% with appropriate spoil placement, functional drainage and erosion control structures to reduce slope erosion potential.</p> <p>Final rehabilitated spoil dumps will be hills with a mix of pasture and native species.</p> <p>Topsoil spread with no bare areas greater than 100m².</p>	<p>Spoil top of dump (out of pit and in-pit) surfaces have been constructed to a slope range < 10%.</p> <p>Side slopes have been constructed to a slope range < 17%.</p> <p>Outer spoil slopes are no longer than 100m without being broken by a bench.</p>
	Mineral residue storage areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	<p>Tailings material will be physically and chemically assessed to determine the appropriate capping required.</p> <p>Mineral residue material capped with coarse reject and/or spoil and revegetated with a mix of pasture and native species.</p>	<p>Mineral residue material capped with a suitable vegetation species mix established to meet the agreed final land use.</p> <p>Surface water run off quality is similar to the water quality of the surrounding catchment and within</p>

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Environmental authority EPML00744813 – Foxleigh Mine

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
				Topsoil spread with no bare areas greater than 100m ² .	the EA conditions. Coarse reject landforms shaped to a slope range <10%.
Watercourse diversions	Creek diversions and levees	<ol style="list-style-type: none"> 1. Safe for humans and wildlife 2. Non polluting 3. Stable 4. Able to sustain agreed post-mining land use 	Creek diversions that operate in equilibrium with adjoining reaches of the watercourse.	<p>Creek diversion must incorporate similar geomorphic and riparian vegetation features to those of the pre-existing watercourse and adjoining landscape.</p> <p>Surface water qualities of flow events through the diversion are similar to the water quality of the surrounding catchment and within the EA conditions.</p> <p>Remediation of the disturbed area within the watercourse diversion and adjoining floodplain is stable with evidence of vegetation achieving a trajectory of self-sustainability.</p> <p>Topsoil spread with no bare areas greater than 100m². Revegetation seed mix complies with final agreed land use.</p>	TBA when final detailed design for cockatoo creek including detailed revegetation plan have been approved by the relevant Administering Authority.
All mine surface features	Infrastructure areas: <ul style="list-style-type: none"> • Raw and mine-affected water storage dams • Roads and tracks • ROM stockpile areas • MIA (workshops and associated 	<ol style="list-style-type: none"> 1. Safe for humans and wildlife 2. Non polluting 3. Stable 4. Able to sustain agreed post-mining land use 	<p>To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.</p> <p>Where agricultural land use</p>	<p>Infrastructure removed as required and revegetated to a light grazing post mining land use.</p> <p>Potential for erosion of waste dump slopes is reduced by correct spoil placement and functional drainage.</p>	<p>Any infrastructure that is to remain post closure, shall have a written agreement between the post mining land owner and Anglo Coal (Foxleigh Management) Pty Ltd.</p> <p>Surface water run off quality is similar to the water quality of the surrounding catchment and within</p>

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Environmental authority EPML00744813 – Foxleigh Mine

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
	<p>laydown, hardstand, fuel storage, washdown bay areas)</p> <ul style="list-style-type: none"> CHPP Administration offices Explosive magazine Power reticulation network Fencing <p>Mining areas:</p> <ul style="list-style-type: none"> Residual Voids Spoil emplacement areas Mine residue storage areas 		<p>applies, to return self-sustaining grazing land that is sustainable and economically viable.</p>	<p>Adequate access areas used for agriculture that can be maintained into the future.</p> <p>Suitable vegetation is planted for agricultural uses.</p> <p>Adequate shade and water is available for stock use.</p> <p>Topsoil spread minimum 15cm depth, with no bare areas greater than 100m². Ripping to a minimum depth of 50cm at 1m spacing.</p> <p>Revegetation seed mix complies with final agreed land use.</p>	<p>the EA conditions.</p> <p>Infrastructure areas land reshaped to slope range <10%. Adequate erosion control structures have been installed, with no sites of significant wind or gully erosion that will cause harm to fauna.</p> <p>Vegetation established across areas with a suitable species mix for the agreed final land use.</p> <p>Areas where agricultural land use applies, have pasture grass species present and provide stock with nutritional requirements, as well as being capable of setting viable seed and flowering similar to reference sites in the Middlemount area and/or with a land suitability class (grazing) of 4.</p>
Mining areas	Residual voids	<ol style="list-style-type: none"> Safe for humans and wildlife Non polluting Stable Able to sustain agreed post-mining land use 	<p>Residual void water bodies are able to be accessed by wildlife, used for water supplies and/or used as recreational facilities according to the final land use for that area.</p>	<p>Stable highwalls left standing at the slope created by the final blast and a diversion bank provided at the top for safety and drainage.</p> <p>Any exposed coal seam covered with material to minimise highly saline water leaching into void water stores.</p> <p>Drains constructed to redirect surface water from flowing over the highwall or lowwall.</p> <p>Geotechnical stability and risk assessments conducted to determine the appropriate treatments prior to closure.</p>	<p>Final voids reshaped to a slope range of <70% for competent material or <45% for non-competent material or as stated as stated in an appropriate risk assessment conducted by a suitably qualified person.</p> <p>Drainage structures along highwalls and lowwalls have been revegetated, with water drainage that flows naturally without pooling or flooding.</p>

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Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
	Spoil emplacement areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	Outer spoil slopes reshaped to 17%. Internally draining spoil slopes reshaped to <45% with appropriate spoil placement, functional drainage and erosion control structures to reduce slope erosion potential. Final rehabilitated spoil dumps will be hills with a mix of pasture and native species. Topsoil spread with no bare areas greater than 100m ² .	Spoil top of dump (out of pit and in-pit) surfaces have been constructed to a slope range < 10%. Side slopes have been constructed to a slope range < 17%. Outer spoil slopes are no longer than 100m without being broken by a bench.
	Mineral residue storage areas		To return a self-sustaining, low maintenance vegetation state with similar structure, composition and function to that of a native terrestrial or riparian ecosystem of the brigalow belt.	Tailings material will be physically and chemically assessed to determine the appropriate capping required. Mineral residue material capped with coarse reject and/or spoil and revegetated with a mix of pasture and native species. Topsoil spread with no bare areas greater than 100m ² .	Mineral residue material capped with a suitable vegetation species mix established to meet the agreed final land use. Surface water run off quality is similar to the water quality of the surrounding catchment and within the EA conditions. Coarse reject landforms shaped to a slope range <10%.
Watercourse diversions	Creek diversions and levees	5. Safe for humans and wildlife 6. Non polluting 7. Stable 8. Able to sustain agreed post-mining land use	Creek diversions that operate in equilibrium with adjoining reaches of the watercourse.	Creek diversion must incorporate similar geomorphic and riparian vegetation features to those of the pre-existing watercourse and adjoining landscape. Surface water qualities of flow events through the diversion are similar to the water quality of the surrounding catchment and	TBA when final detailed design for cockatoo creek including detailed revegetation plan have been approved by the relevant Administering Authority.

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Environmental authority EPML00744813 – Foxleigh Mine

Mine Domain	Mine Feature Name	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
				<p>within the EA conditions.</p> <p>Remediation of the disturbed area within the watercourse diversion and adjoining floodplain is stable with evidence of vegetation achieving a trajectory of self-sustainability.</p> <p>Topsoil spread with no bare areas greater than 100m². Revegetation seed mix complies with final agreed land use.</p>	

END OF PERMIT