### **Department Interest: General**

### Financial assurance

**A1** Provide financial assurance in the amount and form required by the administering authority prior to the commencement of activities proposed under this environmental authority.

Note: The calculation of financial assurance for condition A1 must be in accordance with the administering authority's Guideline – Calculating Financial Assurance for Mining Projects, and may include a performance discount. The amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest total rehabilitation cost calculated for any year of the Plan of Operations and calculated using the formula: (Financial Assurance = Highest total annual rehabilitation cost x Percentage required).

**A2** The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

Note: Where progressive rehabilitation is completed and acceptable to the administering authority, progressive reductions to the amount of financial assurance will be applicable where rehabilitation has been completed in accordance with the acceptance criteria defined within the appropriate environmental authority.

### Prevent and/or minimise likelihood of environmental harm

A3 In carrying out the environmentally relevant activities, the holder of this environmental authority must take all reasonable and practicable measures to prevent and/or to minimise the likelihood of environmental harm being caused. Any environmentally relevant activity, that, if carried out incompetently, or negligently, may cause environmental harm, in a manner that could have been prevented, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note: This authority authorises the environmentally relevant activity. It does not authorise environmental harm unless a condition contained within this authority explicitly authorises that harm. Where there is no condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

# Maintenance of measures, plant and equipment

**A4** The environmental authority holder must ensure:

- a) that all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority are installed
- b) that such measures, plant and equipment are maintained in a proper condition
- c) that such measures, plant and equipment are operated in a proper manner.

### Monitoring and records

**A5** Record, compile and keep for a minimum of five (5) years all monitoring results required by this environmental authority and make available for inspection all or any of these records upon request by the administering authority.

**A6** Where monitoring is a requirement of this environmental authority, ensure that a competent person(s) conducts all monitoring.

# Notification of emergencies, incidents and exceptions

**A7** All reasonable actions are to be taken to minimise environmental harm, or potential environmental harm, resulting from any emergency, incident, or circumstances not in accordance with the conditions of this environmental authority.

**A8** As soon as practicable after becoming aware of any emergency, incident or information about circumstances which results or may result in environmental harm not in accordance with the conditions of this environmental authority, the administering authority must be notified by telephone, facsimile or email.

**A9** Not more than ten (10) business days following the initial notification of an emergency or incident, or information about circumstances which result or may result in environmental harm, written advice must be provided to the administering authority in relation to:

- a) proposed actions to prevent a recurrence of the emergency or incident,
- b) the outcomes of actions taken at the time to prevent or minimise environmental harm; and
- c) proposed actions to respond to the information about circumstances which result or may result in environmental harm.

**A10** As soon as practicable, but not more than six (6) weeks following the initial notification of an emergency, incident or information about circumstances which results or may result in environmental harm, environmental monitoring must be performed and written advice must be provided of the results of any such monitoring performed to the administering authority.

# **Coal production**

**A11** The environmental authority holder is approved for a coal extraction rate of up to five and a half (5.5) million tonnes per annum (mtpa) of run-of-mine (ROM) ore in accordance with [insert environmental authority number here].

#### **Definitions**

**A12** Words and phrases used throughout this environmental authority are defined in the Definitions section of this authority. 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 and policies must be used.

# **Department Interest: Air**

### **Dust Nuisance**

**B1** Dust generated by the mining activities must not cause any of the following air quality objectives to be exceeded at a sensitive or commercial place:

- (a) a level of deposited dust of 120 milligrams per square metre per day based on a monthly average;
- (b) a concentration of total particulate matter suspended in the atmosphere of 90 micrograms per cubic metre over a 1 year averaging time;
- (c) a concentration of particulate matter with aerodynamic diameter of less than 10 micrometres (PM<sub>10</sub>) of 50 micrograms per cubic metre over a 24-hour averaging time with not more than 5 exceedances recorded over 12 months at any sensitive place (5 days exceedances per year are for the natural events such as bushfires and dust storms);
- (d) a concentration of particulate matter with aerodynamic diameter of less than 2.5 micrometres (PM<sub>2.5</sub>) of 25 micrograms per cubic metre over a 24-hour averaging time; and
- (e) a concentration of particulate matter with aerodynamic diameter of less than 2.5 micrometres (PM<sub>2.5</sub>) of 8 micrograms per cubic metre over a 1 year averaging time.

## **Ambient Dust Monitoring Program**

**B2** The environmental authority holder must develop an Ambient Dust Monitoring Program to specify how the ambient dust impacts of the Millennium Mine will be monitored. The Program shall include, but not necessarily be limited to:

- (a) Identification of an integrated air quality monitoring network, developed in consultation with the owner/operator of the coal mining site;
- (b) Locations, frequencies and methods for monitoring PM10 and deposited particulate matter;
- (c) Provision for the use of at least one hi volume air samplers (HVAS) or Tapered Element Oscillating Microbalance Samplers (TEOMS), five dust depositional gauges and a meteorological station capable of monitoring wind direction and speed;
- (d) Investigation of the use of HVAS or TEOMS as part of the integrated air quality monitoring network. Should an alternative sampling method is required; the holder may seek approval from administering authority to exclude this requirement. In seeking such exclusion, the reasons for the exclusion shall be provided and be fully justified;
- (e) Provided that the use of TEOMS is proven to be justified (as outlined in (d) above), the holder shall utilise real time monitoring data to inform environmental management decisions associated with the project;
- (f) A framework for identifying actual and potential dust impacts, and for applying pro active and reactive mitigation and management measures to address those impacts;
- (g) Provision for independent review and auditing of the Program; and
- (h) Mechanisms for updating.

The environmental authority holder must submit the Ambient Dust Monitoring Program to the administering authority for approval by [enter date prior to operation of the Millennium Expansion Project]

**B3** Ongoing monitoring must be conducted in accordance with the standards and at the locations specified in **Table 9**.

**Table 9 (Air Quality Monitoring Details)** 

Air Quality Determination	Monitoring Standard	Monitoring Monitoring Point Location		oximate ring Point n (GDA 94)	
Determination	Standard	Description	Easting (GDA 94)	Northing (GDA 94)	
$PM_{10}$	AS/NZS 3580.9.6:2003 or AS 3580.9.8:2008	(to be determined by insert date)	(to be determined by insert date)		
Dust deposition	*	DG1	625010	7565535	
	3580.10.1:2003	DG2	624537	7562669	
		DG3	632633	7564684	
		DG4	625740	7560844	
		DG5	625779	7566931	
Meteorological data <sup>(1)</sup>	AS 2923:1987	MS1	630112	7563606	

<sup>(1)</sup> Wind speed and direction, humidity, temperature and precipitation.

- **B4** Where monitoring at locations identified in **Table 9** indicates that the air quality objectives detailed in condition B1 have been exceeded, the environmental authority holder must investigate the matter and report to the administering authority within **fourteen (14) days**:
  - (a) the concentration of PM10 particulates or dust deposition rate recorded;
  - (b) a description of meteorological conditions occurring at the time; and
  - (c) the measures taken to reduce dust generated by the mining activities.
- **B5** When requested by the administering authority or as a result of a complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer), additional dust and particulate monitoring (including dust deposition, total suspended particles (TSP), PM10 and PM2.5) must be undertaken, and the results thereof notified to the administering authority within **fourteen (14) days** following completion of monitoring. This includes providing interim reports if the monitoring lasts for more than one month.

Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place. Monitoring must be conducted in accordance with the appropriate standards.

**B6** If monitoring conducted as a result of a complaint indicates an exceedance of the guidelines detailed in condition B1, the environmental authority holder must:

- (a) address the complaint through the use of appropriate dispute resolution if required; and
- (b) immediately implement dust abatement measures.
- **B7** The results of PM10, dust deposition and meteorological monitoring must be reported to the administering authority on request.

If requested, the results of PM10, dust deposition and meteorological monitoring will be made available for use in any air quality monitoring network in the Moranbah region operated independently of mining operations.

### **Odour Nuisance**

- **B8** 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.
- **B9** 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 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 **fourteen (14) days** to the administering authority following completion of monitoring.
- **B10** If the administering authority determines the odour released to constitute an environmental nuisance, then the environmental authority holder must:
- 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.

# **Department Interest: Water**

- **C1** Contaminants that will, or have the potential to cause environmental harm must not be released directly or indirectly to any waters except as permitted under the conditions of this environmental authority.
- C2 The release of contaminants to waters must only occur from the release points specified in Table (note these locations will be advised when conditions are being finalised).
- C3 The release of contaminants to waters must not exceed the release limits stated in Table (note these limits will be advised when conditions are being finalised) when measured at the monitoring points specified in Table (note these locations will be advised when conditions are being finalised) for each quality characteristic.

- C4 The release of contaminants to waters from the release points must be monitored at the locations specified in **Table** (note these locations will be advised when conditions are being finalised) for each quality characteristic and at the frequency specified in **Table** (note these frequencies will be advised when conditions are being finalised).
- C5 If quality characteristics of the release exceed any of the trigger levels specified in **Table** (note these limits will be advised when conditions are being finalised) during a release event, the environmental authority holder must compare the downstream results in the receiving waters to the trigger values specified in **Table** (note these limits will be advised when conditions are being finalised) and:
- 1) where the trigger values are not exceeded then no action is to be taken; or
- where the downstream results exceed the trigger values specified for any quality characteristic, compare the results of the downstream site to the data from background monitoring sites and;
  - a) if the result is less than the background monitoring site data, then no action is to be taken; or
  - b) if the result is greater than the background monitoring site data, complete an investigation in accordance with the ANZECC & ARMCANZ (2000) methodology, into the environmental harm and provide a written administering authority in the next annual return, outlining:
    - i) details of the investigations carried out; and
    - ii) actions taken to prevent environmental harm.

Note: Where an exceedance of a trigger level has occurred and is being investigated in accordance with condition C5 (2)(b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.

C6 If an exceedance in accordance with condition C5(2)(b) is identified, the holder of the authority must notify the administering authority within fourteen (14) days of receiving the result.

## **Contaminant Release Events**

- C7 (note Model Water Condition for Coal Mines in the Fitzroy Basin will apply)
- C8 The volume released through the release point(s) must not exceed the maximum allowable flow in the stream(s) for flow criteria at any time determined by multiplying the recorded flow at the corresponding gauging station in **Table** (note these will be advised when conditions are being finalised) with the corresponding percentages for maximum release in **Table** (note these will be advised when conditions are being finalised).
- **C9** The daily quantity of contaminants released from each release point must be measured and recorded at the release points in **Table** (note these locations will be advised when conditions are being finalised).
- C10 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.

#### **Notification of Release Event**

**C11** The authority holder must notify the administering authority as soon as practicable (no later than **six (6) hours** of having commenced releasing mine affected water to the receiving environment). Notification must include the submission of written verification to the administering authority of the following information:

- a) release commencement date/time;
- b) expected release cessation date/time;
- c) release point(s);
- d) release volume (estimated);
- e) receiving water(s) including the natural flow rate; and
- f) any details (including available data) regarding likely impacts on the receiving water(s).

Note: Notification to the administering authority must be addressed to the Manager and Project Manager of the local administering authority via email or facsimile.

C12 The authority holder must notify the administering authority as soon as practicable, (nominally within **twenty-four (24) hours** after cessation of a release) of the cessation of a release notified under condition C11 and within **twenty-eight (28) days** provide the following information in writing:

- 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 Contaminant Release conditions 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.

### **Notification of Release Event Exceedance**

C13 If the release limits defined in **Table** (note these limits will be advised when conditions are being finalised) are exceeded, the holder of the environmental authority must notify the administering authority within **twenty-four** (24) hours of receiving the results.

C14 The authority holder must, within **twenty-eight** (28) **days** of a release that exceeds the conditions of this authority, provide a report to the administering authority detailing:

- a) the reason for the release;
- b) the location of the release;
- c) all water quality monitoring results;
- d) any general observations;
- e) all calculations; and
- f) any other matters pertinent to the water release event.

# **Monitoring of Water Storage Quality**

C15 (note monitoring of storage water will be required per Model Water Condition for Coal Mines in the Fitzroy Basin).

C16 In the event that waters storages defined in Table (note these locations will be advised when conditions are being finalised) exceed the contaminant limits defined in Table (note these limits will be advised when conditions are being finalised), the holder of the environmental authority must implement measures, where practicable, to prevent access to waters by all livestock.

# Receiving Environment Monitoring and Contaminant Trigger Levels C17 (note receiving environment monitoring will be required per Model Water Condition for Coal Mines in the Fitzroy Basin)

C18 If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in **Table** (note these limits will be advised when conditions are being finalised) during a release event the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:

- 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 in accordance with the ANZECC & ARMCANZ (2000) methodology, into the potential for environmental harm and provide a written report to the administering authority in the next annual return, outlining:
  - i) details of the investigations carried out; and
  - ii) actions taken to prevent environmental harm.

Note: Where an exceedance of a trigger level has occurred and is being investigated in accordance with C18(b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.

### Receiving Environment Monitoring Program

C19 (note a receiving environment monitoring program (REMP) will be required per Model Water Condition for Coal Mines in the Fitzroy Basin)

- **C20** The REMP must address (but not necessarily be limited to) the following: a) description of potentially affected receiving waters including key communities and background water quality characteristics based on accurate and reliable monitoring
- data that takes into consideration any temporal variation (e.g. seasonality);
  b) description of applicable environmental values and water quality objectives to be
- achieved (i.e. as scheduled pursuant to the Environmental Protection [Water] Policy 2009);
- c) any relevant reports prepared by other governmental or professional research organisations that relate to the receiving environment within which the REMP is proposed;
- d) water quality targets within the receiving environment to be achieved, and clarification of contaminant concentrations or levels indicating adverse environmental impacts during the REMP;
- e) monitoring for any potential adverse environmental impacts caused by the release;
- f) monitoring of stream flow and hydrology;

- g) monitoring of toxicants should consider the trigger levels specified in **Table** (note these limits will be advised when conditions are being finalised) to assess the extent of the compliance of concentrations with water quality objectives and/or the ANZECC & ARMCANZ (2000) guidelines for slightly to moderately disturbed ecosystems;
- h) monitoring of physical chemical characteristics as a minimum those specified in **Table** (*note these will be advised when conditions are being finalised*) (in addition to dissolved oxygen saturation and temperature);
- i) monitoring biological indicators (for macroinvertebrates in accordance with the AusRivas methodology) and metals/metalloids in sediments (in accordance with ANZECC & ARMCANZ (2000), BATLEY and/or the most recent version of AS5667.1 Guidance on Sampling of Bottom Sediments) for permanent, semi-permanent water holes and water storages;
- j) the locations of monitoring points (including the locations specified in **Table** (note these locations will be advised when conditions are being finalised) which are background and downstream impacted sites for each release point);
- k) the frequency or scheduling of sampling and analysis sufficient to determine water quality objectives and to derive site specific reference values within **two (2) years** (depending on wet season flows) in accordance with the Queensland Water Quality Guidelines 2009. For ephemeral streams, this should include periods of flow irrespective of mine or other discharges;
- l) specify sampling and analysis methods and quality assurance and control;
- m) any historical datasets to be relied upon;
- n) description of the statistical basis on which conclusions are drawn; and
- o) any spatial and temporal controls to exclude potential confounding factors.

### Water Re-use

- C21 Water contaminated by mining activity may be piped or trucked or transferred by some other means that does not contravene the conditions of this authority during periods of dry weather for the purpose of supplying stock water to properties directly adjoining properties owned by the environmental authority holder or a third party and subject to compliance with the quality release limits specified in **Table** (note these limits will be advised when conditions are being finalised).
- C22 Water contaminated by mining activity may be piped or trucked or transferred by some other means that does not contravene the conditions of this authority during periods of dry weather for the purpose of supplying irrigation water to properties directly adjoining properties owned by the environmental authority holder or a third party and subject to compliance with quality release limits in **Table** (note these limits will be advised when conditions are being finalised)20.
- **C23** Water contaminated by mining activity may be piped or trucked off the mining lease for the purpose of supplying water to a third party for purpose of construction and/or road maintenance in accordance with the conditions of this environmental authority.

- **C24** Water contaminated by mining activity may be piped or trucked for the purpose of supplying water to RMJV CHPP Joint Venture and Poitrel Coal Mine in accordance with the conditions of this environmental authority. The volume, pH and electrical conductivity of water transferred to RMJV CHPP Joint Venture and Poitrel Coal Mine must be monitored and recorded.
- C25 If the responsibility of water contaminated by mining activities (the water) is given or transferred to another person in accordance with conditions C21, C22, C23 or C24:
- a) the responsibility of the water must only be given or transferred in accordance with a written agreement (the third party agreement); and
- b) include in the third party agreement a commitment from the person utilising the water to use water in such a way as to prevent environmental harm or public health incidences and specifically make the persons aware of the General Environmental Duty under section 319 of the EP Act, environmental sustainability of the water disposal and protection of environmental values of waters.

#### Water General

C26 All determinations of water quality must be:

- a) performed by a person or body possessing appropriate experience and qualifications to perform the required measurements;
- b) made in accordance with methods prescribed in the latest edition of the administering authority's Water Quality Sampling Manual;
- c) collected from the monitoring locations identified within this environmental authority, within **ten (10) hours** of each other where possible;
- d) carried out on representative samples; and
- e) laboratory testing must be undertaken using a laboratory accredited (e.g. the National Association of Testing Authorities [NATA]) for the method of analysis being used.
- C27 The release of contaminants directly or indirectly to waters:
- a) must not produce any visible discolouration of receiving waters; and
- b) must not produce any slick or other visible or odorous evidence of oil, grease or petrochemicals nor contain visible floating oil, grease, scum, litter or other objectionable matter.

#### Annual Water Monitoring Reporting

- **C28** 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 with each annual return:
- 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 the contaminants 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 exceedance with 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

**C29** Temporarily 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 DERM *Guideline – Activities in a Watercourse, Lake or Spring associated with Mining Activities.* 

### Water Management Plan

- C30 (note a Water Management Plan will be required in accordance with Model Water Condition for Coal Mines in the Fitzroy Basin).
- C31 The Water Management Plan must be revised in accordance with the administering authority's *Guideline for Preparation of water management plans for mining activities* (2010) or any updates that become available from time to time and must include the following components:
- (a) Contaminant Source Study;
- (b) Site Water Balance and Model;
- (c) Water Management System;
- (d) Saline Drainage Prevention and Management Measures;
- (e) Acid Rock Drainage Prevention and Management Measures (if applicable);
- (f) Emergency and Contingency Planning; and
- (g) Monitoring and Review.
- C32 Each year the holder of the environmental authority must undertake a review of the Water Management Plan annually prior to the wet season (i.e. by 1 November) and a further review following the wet season (i.e. by 1 May the following year) to ensure that proper and effective measures, practices or procedures are in place so that the mine is operated in accordance with the conditions of this environmental authority and that environmental harm is prevented or minimised.
- **C33** A copy of the Water Management Plan and/or a review of the Water Management Plan must be provided to the administering authority on request.

## Saline Drainage

**C34** The holder of this environmental authority must ensure proper and effective measures are taken to avoid or otherwise minimise the generation and/or release of saline drainage.

### Acid Rock Drainage

C35 The holder of this environmental authority must ensure proper and effective measures are taken to avoid or otherwise minimise the generation and/or release of acid rock drainage.

### Stormwater and Water Sediment Controls

**C36** 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 storm water.

C37 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.

C38 Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable to minimise the release of wastes, contaminants or materials to any stormwater drainage system or receiving waters.

### Fitzrov River Basin Study

C39 The administering authority and the holder of this environmental authority both acknowledge that the conditions for release of contaminants to the Isaac River in this environmental authority have been calculated without the benefit of the findings of projects proposed to be undertaken as per recommendations 2 and 3 of the *Study of cumulative impacts on water quality of mining activities in the Fitzroy River Basin* (April 2009). The administering authority may, based on the information provided in the study report when it becomes available, all relevant information available at the time and the regulatory framework applicable at that time, consult with the holder of this environmental authority about the conditions in the environmental authority concerning the treatment and disposal of waste water. The aim of the consultation shall be the meaningful review of the contaminant release limits imposed in this authority having regard to:

- a) the study results;
- b) near field monitoring results;
- c) Queensland Water Quality Guidelines; and
- d) leading practice environmental management.

If this review leads to a change in the requirements on this environmental authority holder, this shall be advanced by way of an authority amendment or a Transitional Environmental Program and as is necessary or desirable.

# Sewage

**C40** Sewage must be removed off-site by a regulated waste transporter and be disposed of at an authorised waste disposal facility.

**C41** Sewage must not be released from the site to any waters, the bed and banks of any waters or to land.

#### Groundwater

C42 The holder of this environmental authority must submit a Groundwater Monitoring Program to the administering authority by 31 December 2011. The program must be able to detect a significant change to groundwater quality values (consistent with the current suitability of the groundwater for domestic and agricultural use) due to activities that are part of this mining project. The groundwater monitoring program must detail:

- a) The location of groundwater monitoring sites and the aquifers the sites are monitoring.
- b) The frequency at which sampling will be undertaken.
- c) the groundwater contaminant trigger values.
- d) The groundwater monitoring reporting requirements.
- e) Management measures to effectively mitigate and manage potential impacts on aquifers and existing groundwater users.

- **C43** Groundwater monitoring results must be forwarded to the administering authority within 30 business days of being collected.
- **C44** Groundwater potentially affected by the mining activities must be monitored at the locations and frequency defined in Table (note these locations and frequency will be advised when conditions are being finalised).

C45 If the groundwater contaminant trigger levels defined in Table (note these indicators and values will be advised when conditions are being finalised) are exceeded then the environmental authority holder must complete an investigation into the potential for environmental harm and notify the administering authority within twenty-eight (28) days of receiving the analysis results.

# **Background Groundwater Monitoring Program**

- **C46** A background groundwater monitoring program must be developed to include bore(s) that are located an appropriate distance from potential sources of impact from mining activities to provide the following:
- a) representative groundwater samples from the aquifers potentially affected by mining activities;
- b) at least **twelve** (**12**) **sampling events** (quarterly sampling) to determine background groundwater quality as far as practicable;
- c) background groundwater quality in hydraulically isolated background bore(s) that have not been affected by any mining activities; and
- d) final groundwater contaminant trigger levels and limits required in condition (note these will be advised when conditions are being finalised).
- C47 The groundwater monitoring data must be reviewed on an annual basis. The review must include the assessment of groundwater levels and quality data, and the suitability of the monitoring network. The annual report that assesses the impacts of mining on groundwater will be forwarded to the administering authority by the 30 September each year.
- C48 Groundwater contaminant trigger levels as per Table (note these will be advised when conditions are being finalised) must be finalised based on a background groundwater monitoring program defined in condition C(note these will be advised when conditions are being finalised) and submitted to the administering authority by 1 January 2013.
- **C49** Upon finalisation of groundwater contaminant trigger levels as per condition **C**(*note these will be advised when conditions are being finalised*), the environmental authority holder may apply for the frequency of the groundwater monitoring to be reduced.

### **Department Interest: Dams**

#### **All Dams**

**C50** Documentation required by the conditions in this schedule must be kept available for inspection by the administering authority for a period of **five (5) years** after the conclusion of the environmentally relevant activity in respect of which this environmental authority has been granted.

- **C51** The holder of this environmental authority must ensure that each dam is designed, constructed, operated and maintained in accordance with accepted engineering standards and is fit for the purpose for which it is intended.
- **C52** The holder of this environmental authority must by 1 November 2011 provide to the administering authority certified design plans for additional storage of 1,446 megalitres on site. The additional storage must be constructed and operating in accordance with a revised water management plan prior to 1 November 2012.
- C53 The hazard category of each dam must be assessed by a suitably qualified and experienced person 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 dam. The hazard category is to be determined in accordance with the Department of Economic Development, Employment and Innovation's Site Water Management Technical Guideline for Environmental Management of Exploration and Mining in Queensland (DME 1995).
- **C54** Where the hazard category of a dam is assessed as significant or high, the holder of the environmental authority must act immediately to ensure:
- (a) the administering authority is advised of the current details of that dam, including:
  - i) the assessed hazard category of that dam;
- ii) sufficient points of latitude and longitude in the current Geocentric Datum of Australia to form a perimeter around that dam and its associated works; and
- iii) the maximum surface area, maximum volume, maximum depth of that dam
- (b) the dam meets the hydraulic performance required of the assessed hazard category within twelve (12) months of that assessment.
- C55 The condition of dams must be monitored for early signs of loss of structural or hydraulic integrity, based on the advice of a suitably qualified and experienced person. The methods of monitoring and frequency of monitoring shall be as assessed by that suitably qualified and experienced person, based on the hazard category and particular circumstances of each dam.
- C56 In the event of early signs of loss of structural or hydraulic integrity, the holder of this environmental authority must immediately take action to prevent or minimise any actual or potential environmental harm, and report in writing any findings and actions taken to the administering authority within **twenty-eight (28) days** of that event.
- **C57** The holder of this environmental authority must not abandon any dam but must decommission each dam such that ongoing environmental harm is prevented.
- C58 As a minimum, decommissioning must be conducted such that each dam, either:
- (a) has become a stable landform, that no longer contains flowable substances; or
- (b) has been approved or authorised under relevant legislation for a beneficial use and is subject to legally enforceable conditions of management; or
- (c) is a void authorised by the administering authority to remain after decommissioning subject to legally enforceable conditions of management; and
- (d) complies with the rehabilitation requirements of this environmental authority.

# **Location and Basic Specifications**

**C59** The following are the only regulated dams authorised under this environmental authority, and those dams are to be located within the control points defined in **Table 22** (Location of regulated dams).

**C60** The following are the only regulated dams authorised under this environmental authority, and those dams are to accord with the basic specifications in **Table 23** (Basic specification of regulated dams).

**C61** The following are the only regulated dams authorised under this environmental authority, and those dams are to accord with the hydraulic specifications in **Table 24** (Hydraulic performance of regulated dams).

Table 22 (Location of regulated dams)

Name of regulated dam	Easting (GDA 94)	Northing (GDA 94)
Western Dam	626227	7563194
	626095	7562948
	626597	7562599
	626615	7563108

**Table 23 (Basic specification of regulated dams)** 

Name of regulated dam	Maximum surface area of dam (ha)	Maximum volume of dam (ML)	Maximum  Depth of  Dam (m)	Purpose of dam
Western Dam	22	540	6.75	Water storage for transfer to Process Water Dam. Storage of Associated water and run-off.

**Table 24 (Hydraulic performance of regulated dams)** 

Regulated Dam	Design Storage Allowance	Spillway Critical Design Storm	Mandatory Reporting Level
Western Dam	1 in 100 ARI Event	1 in 100 ARI Event	1 in 100 ARI

# **Certification and Operation**

- **C62** The holder of this environmental authority must not commence construction of a regulated dam unless:
- (a) the holder has submitted to the administering authority two copies of a design plan to an appropriate engineering standard, together with the certification of a suitably qualified and experienced person that the design of the regulated dam is fit for the purpose for that dam stated in that plan, and compliant in all respects with this environmental authority; and
- (b) at least **twenty-eight** (28) days has passed since the submission of the design plan, or the administering authority has advised the holder that the design plan is compliant with this condition.
- C63 When construction or modification of any regulated dam is complete, or within twelve (12) months of a dam becoming a regulated dam by virtue of a hazard assessment in accordance with condition C52, 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 the purpose stated in the hazard assessment and the design plan if the latter exists, and compliant in all respects with this environmental authority.
- **C64** 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.
- **C65** The operational plan shall at least cover all matters relevant to the operation and maintenance of the regulated dam so that it is compliant in all respects with this environmental authority.
- **C66** The holder of this environmental authority must ensure that, where a current operational plan covers decommissioning and rehabilitation, those operations are consistent with the objectives in any design plan for the dam.
- **C67** The holder of this environmental authority must notify the administering authority immediately of the level in any regulated dam reaching the mandatory reporting level (MRL), and confirm in writing within **seven (7) days**.

### **Annual Inspection and Report**

- **C68** The holder of this environmental authority must arrange for each regulated dam to be inspected annually by a suitably qualified and experienced person, in accordance with the following conditions.
- **C69** At each annual inspection, the condition of each regulated dam must be assessed, including the structural, geotechnical and hydraulic adequacy of the dam and the adequacy of the works with respect to dam safety, and any recommended actions conveyed immediately to the holder of this environmental authority.
- **C70** The holder of this environmental authority must immediately act upon recommendations arising from an annual inspection on condition and adequacy of a dam.

- **C71** At each annual inspection, the adequacy of the available storage against the design storage allowance specified must be assessed and, if a mandatory reporting level is required, it must be determined and marked on each regulated dam.
- **C72** 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, accepted as valid by the suitably qualified and experienced person, and resulting in an estimate of the level in that dam as at **1 November**.
- C73 For each annual inspection, two (2) copies of a report certified by the suitably qualified and experienced person, 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.

### **Design Storage Allowance**

- C74 The holder of the environmental authority must develop, calibrate, and maintain a complete mine water balance model with a coupled salt balance model that adequately represents all sources of mine water contributing hazardous mine water dams, mine pits, and operations of the mine water management system. All key assumptions and input parameters of the mine water balance model must be documented and be available for auditing.
- C75 All key assumptions for mine water operations in the mine water balance model must be documented in Standard Operating Procedures and the mine water management system must be operated in accordance with the procedures.
- **C76** Assessments utilising the mine water balance model to evaluate water management system capacity and operations in response to rainfall must be undertaken by competent personnel.
- C77 The holder of the environmental authority must implement and maintain monitoring of actual mine water quantity and quality within the mine water management system to demonstrate, and continually improve, the mine water balance model calibration.
- C78 On 1 November each year, the holder of the environmental authority must review the mine catchments, storage capacity, current storage volumes, system transfer capacity, and Standard Operating Procedures of all key infrastructure elements of the mine water management system and update the mine water balance model. An assessment of the mine water balance model must be undertaken to ensure that the mine water management system has sufficient storage capacity, transfer capacity, and transfer operations to ensure that there will be no unauthorised discharges of mine water for wet season rainfall events up to an AEP 0.01 (1 in one hundred) wet season. The assessment must be undertaken with an appropriate period of climate data that includes representation of an AEP 0.01 (1 in one hundred) wet season rainfall. The assessment results must be documented and be available for auditing.

**C79** The holder of the environmental authority must notify the administering authority if the assessment of the mine water management system shows that unauthorised discharges may occur for rainfall events up to the AEP 0.01 (1 in one hundred) wet season.

**C80** In the event of failure of any component of the mine water management system, the holder of the environmental authority must utilise the mine water balance model to reassess the performance of the mine water management system in its current state, and notify the administering authority if the assessment of the mine water management system shows that unauthorised discharges may occur for rainfall events up to the AEP 0.01 (1 in one hundred) wet season.

### **Flood Protection Structures**

- **C81** The holder of this environmental authority must install adequate flood protection to meet the following criteria:
  - (a) During a period not exceeding 20 years following commencement of this condition, the holder of this environmental authority must provide flood protection for the Millennium and Mavis pit to a design AEP of 0.0005 (1 in 2,000).
  - (b) For a subsequent period not exceeding 30 years prior to the removal of the rail embankment, the holder of this environmental authority must provide flood protection of the Millennium Pit and Mavis Pit final voids to a design AEP of 0.0002 (1 in 5,000).
  - (c) Following removal of the rail embankment or the expiry of 50 years following the commencement of this condition, the holder of this environmental authority must provide flood protection of the Millennium Pit and Mavis Pit final voids for a Probable Maximum Flood (PMF).
- **C82** The holder of this environmental authority must not commence construction of a flood protection levee, unless:
  - (a) the holder has submitted to the administering authority two copies of a design plan to an appropriate engineering standard, together with the certification of a suitably qualified and experienced person that the design of the flood protection levee is fit for the purpose for that levee stated in that plan, and compliant in all respects with this environmental authority; and
  - (b) at least **twenty-eight (28) days** has passed since the submission of the design plan, or the administering authority has advised the holder that the design plan is compliant with this condition.
- C83 When construction or modification of any flood protection 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 generally in accordance with the certified design plans.
- **C84** The holder of this environmental authority must ensure that there is always a current operational plan for each flood protection levee, which may form part of other plans required by legislation.

- **C85** The operational plan shall at least cover all matters relevant to the operation and maintenance of the flood protection levee so that it is compliant in all respects with this environmental authority.
- **C86** The holder of this environmental authority must ensure that, where a current operational plan covers decommissioning and rehabilitation, those operations are consistent with the objectives in any design plan for the flood protection levee.

# **Department Interest: Noise and Vibration**

#### **Noise Nuisance**

- **D1** Noise from mining activities must not cause an environmental nuisance at any noise sensitive or commercial place.
- **D2** All noise from mining activities must not exceed the levels specified in **Table 25** at any noise affected place.

## **Noise Monitoring**

- **D3** When requested by the administering authority, noise monitoring must be undertaken to investigate any complaint of noise nuisance, and the results notified within **14 days** to the administering authority. Monitoring must include:
- a) LA10, adj, 10 mins;
- b) L<sub>A1, adj, 10 mins</sub>;
- c) the level and frequency of occurrence of impulsive or tonal noise;
- d) atmospheric conditions including wind speed and direction;
- e) effects due to extraneous factors such as traffic noise; and
- f) location date and time of recording.
- **D4** Noise is not considered to be a nuisance under condition **D1** if monitoring shows that noise does not exceed the following levels in the time periods specified in **Table 25**.

**Table 25 (Noise limits)** 

	Monday to Saturday			Sundays and public holidays		
Noise level dB(A)	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	Noise measured at a 'Noise sensitive place'					
L <sub>A10, adj, 10 mins</sub>	B/g + 5	B/g + 5	B/g + 0	B/g + 5	B/g + 5	B/g + 0
L <sub>A1, adj, 10 mins</sub>	B/g + 10	B/g + 10	B/g + 5	B/g + 10	B/g + 10	B/g + 5
	Noise measured at a 'Commercial place'					
L <sub>A10</sub> , adj, 10 mins	B/g + 10	B/g + 10	B/g + 5	B/g + 10	B/g + 10	B/g + 5
$L_{A1,\;adj,\;10\;mins}$	B/g + 15	B/g + 15	B/g + 10	B/g + 15	B/g + 15	B/g + 10

- **D5** The method of measurement and reporting of noise monitoring must comply with the current edition of the administering authority's Noise Measurement Manual.
- **D6** If monitoring indicates exceedance of the relevant limits in condition **D4**, then the environmental authority holder must:
- a) address the complaint including the use of appropriate dispute resolution if required; and
- b) immediately implement noise abatement measures so that emissions of noise from the activity do not result in further environmental nuisance.

### **Vibration Nuisance**

- **D7** Vibration from the licensed activities must not cause an environmental nuisance, at any sensitive or commercial place.
- **D8** 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 **fourteen (14) days** to the administering authority following completion of monitoring.

### **Airblast Overpressure Nuisance**

**D9** The airblast overpressure level from blasting operations on the premises must not exceed the limits defined in **Table 26** at any nuisance sensitive or commercial place.

**Table 26 (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.

- **D10** 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 **fourteen (14) days** to the administering authority following completion of monitoring.
- **D11** Airblast overpressure monitoring must include the following descriptors, characteristics and conditions:
- a) location of the blast(s) within the mining area (including which bench level);
- b) atmospheric conditions including temperature, relative humidity and wind speed and direction; and
- c) location, date and time of recording.
- **D12** If monitoring indicates exceedence of the relevant limits in **Table 26**, 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.
- **D13** The method of measurement and reporting of airblast overpressure levels must comply with the current edition of the administering authority's Noise Measurement Manual.

## **Department Interest: Waste Management**

### Storage of Tyres

- **E1** Scrap tyres stored awaiting disposal or transport for take-back and recycling, or waste-to-energy options must be stored in stable stacks and at least **ten (10) m** from any other scrap tyre storage area, or combustible or flammable material, including vegetation.
- **E2** All reasonable and practicable fire prevention measures must be implemented, including removal of grass and other materials within a **ten (10) m** radius of the scrap tyre storage area.
- **E3** Disposing of scrap tyres resulting from the authorised activities in waste rock emplacements is acceptable, provided tyres are placed as deep in the waste rock as reasonably practicable. A record must be kept of the number and location for tyres disposed.

**E4** Scrap tyres resulting from the mining activities disposed within the operational land must not impede saturated aquifers or compromise the stability of the consolidated landform.

### **Waste Management**

- **E5** A Waste Management Plan, in accordance with the *Environmental Protection* (*Waste Management*) *Policy 2000*, must be implemented by **1 April 2012** and must:
- a) describe how the Millennium Coal Mine recognise and apply the waste management hierarchy;
- b) identify characteristics of wastes generated from the Millennium Coal Mine and general volume trends over the past **five** (5) **years**;
- c) cover a program for safe recycling or disposal of all wastes-reusing and recycling where possible;
- d) identify waste commitments with auditable targets to reduce, re-use and recycle;
- e) describe waste management control strategies, including:
- i) the type of wastes;
- ii) segregation of the wastes;
- i) storage of the wastes;
- ii) transport of the wastes;
- iii) monitoring and reporting matters concerning the waste;
- iv) emergency response planning; and
- v) disposal, reused and recycling options;
- f) identify the potential adverse and beneficial impacts of the wastes generated; and
- g) detail the hazardous characteristics of the waste generated (if any);
  - i) detail the disposal procedure for hazardous wastes;
  - ii) outline the process to be implemented to allow for continuous improvement of the waste management systems;
  - iii) identify responsible staff (positions) for implementing, managing and reporting the Waste Management Plan; and
- iv) detail a staff awareness and induction program that encourages re-use and recycling.
- **E6** Waste must not be burned or allowed to be burned on the licensed site unless by approval of the administering authority.
- **E7** A designated area must be set aside for the segregation of economically viable, recyclable solid and liquid waste.
- **E8** Records must be kept for **five** (5) **years**, and must include the following information:
- a) date of pickup of waste;
- b) description of waste;
- c) cross reference to relevant waste transport documentation;
- d) quantity of waste;
- e) origin of the waste;
- f) destination of the waste; and
- g) intended fate of the waste, for example, type of waste treatment, reprocessing or disposal.

Note: Records of documents maintained in compliance with a waste tracking system established under the *Environmental Protection Act 1994* or any other law for regulated waste will be deemed to satisfy this condition

- **E9** Records of trade and regulated wastes or material leaving the mining lease for recycling or disposal, including the final destination and method of treatment, must be in accordance with the Environmental Protection (Waste Management) Policy 2000.
- **E10** All regulated waste received at and removed from the site must be transported by a person who holds a current authority to transport such waste under the provisions of the EP Act.
- **E11** Except as otherwise provided by the conditions of this authority, all waste removed from the site must be taken to a facility that is lawfully allowed to accept such waste under the provisions of the *Environmental Protection Act 1994*.

# **Department Interest: Land**

## **Topsoil**

- **F1** Topsoil must be strategically stripped ahead of mining in accordance with a topsoil management plan.
- **F2** A topsoil inventory which identifies the topsoil requirements for the Millennium Coal Mine including availability of suitable topsoil on-site must be detailed in the topsoil management plan.

### Rehabilitation Landform Criteria

**F3** All areas disturbed by mining activities must be rehabilitated to a stable landform with a self-sustaining vegetation cover in accordance with Table 27 and Table 28.

Note: Methods and design criteria specified in Table 27 and Table 28 will be reviewed and modified on the basis of outcomes from ongoing research and experience, and upon acceptance of the Rehabilitation Management Plan and Residual Void Management Plan required by conditions F5 and F7 of this environmental authority.

Table 27 Final land use and rehabilitation approval schedule

	Disturbance type					
Details	Final Void including High Wall and Low Walls	Spoil dump(s)	Spoil Dumps (External Battters)	Waste Rock Runoff / Supply dams	Diversion Channels and Riparian Zones	Road(s)
Projective surface area (ha)*	281	698	289	TBA	TBA	61
Map reference	Figure X	Figure X	Figure X	Figure X	Figure X	Figure X
Pre-mine land use	Grazing	Grazing	Grazing	Grazing	Grazing	Grazing
Post-mine land use	Waterbody / Native bushland	Grazing	Native bushland	Waterbody/G razing	Native bushland	Grazing
Post-mine land capability classification	N/A	Class 3 grazing land	N/A	N/A or Class 2 grazing land	Class 2 grazing land	Class 2 or 3 grazing land
Projective cover range (%)	XX%	XX%	XX%	XX%	XX%	XX%

\*based on conceptual design details

Table 28 - Landform design criteria

Disturbance type	Projective surface area (ha)	Design Criteria
Spoil dumps – external walls	289	<ul> <li>Slope &lt;3(H):1(V)</li> <li>Covered with 1m competent rock/soil mulch</li> </ul>
Spoil dumps – top	698	<ul> <li>Shaped to encourage internal ponding</li> <li>Drainage to merge with natural drainage lines</li> </ul>
Voids, ramps and highwalls	281	<ul> <li>Highwall to remain as is if geotechnical stability is sound or otherwise benched with 15m benches at 20m intervals</li> <li>Bench low walls, or reshape to obtain stability and ensure landform integrity of surrounding landforms</li> </ul>
Haul roads	61	• Remove any creek crossings and reshape to remain stable

- **F4** Progressive rehabilitation must commence within **twelve** (12) **months** when areas become available within the operational land.
- **F5** Complete an investigation into rehabilitation of disturbed areas and submit a Rehabilitation Management Plan to the administering authority proposing acceptance criteria by **1** April **2012** for review and comment. On acceptance of the criteria proposed in the Rehabilitation Management Plan, the criteria must be specified in this environmental authority. The Rehabilitation Management Plan must, at a minimum:
- (a) map existing areas of rehabilitation;
- (b) develop design objectives for rehabilitation of disturbed areas and post mining land uses across the mine;
- (c) specify waste rock characteristics, soil analysis, soil separation for use on rehabilitation:
- (d) detail rehabilitation methods applied to areas;
- (e) contain landform design criteria including end of mine design;
- (f) detail how landform design will be consistent with the surrounding topography;
- (g) include figures of the final landform that illustrate contours, internal surface drainage patterns, appropriate drop structures and runoff retention features;
- (h) include cross-sections of the final landform at appropriate intervals;
- (i) identify success criteria for areas and itemise revegetation criteria;
- (j) explain planned native vegetation rehabilitation areas and corridors;
- (k) identify at least a minimum of three (3) reference and three (3) rehabilitation sites to be used to develop rehabilitation success criteria;
- (l) describe rehabilitation indicators and the monitoring program to be used;
- (m) develop a contingency plan for rehabilitation maintenance or redesign;
- (n) describe end of mine landform design plan and post mining land uses across the mine;
- (o) include a cost benefit analysis / triple bottom line assessment (or an alternative assessment method) of the proposed final landform design criteria and alternatives;
- (p) propose Endangered Regional Ecosystem (ERE) management and offset protection; and
- (q) identify and consider the potential for cumulative impacts on rehabilitation outcomes as a result of applying mine affected water with high electrical conductivity for dust suppression.

# **Residual Void Outcome**

- **F6** Residual voids must not cause any serious environmental harm to land, surface waters or any recognised groundwater aquifer, other than the environmental harm constituted by the existence of the residual void itself and subject to any other condition within this environmental authority.
- F7 Complete an investigation into residual voids and submit a report to the administering authority proposing acceptance criteria to meet the outcomes in condition F6 and landform design criteria by 1 April 2012 for review and comment. On acceptance of the criteria proposed in the residual void management plan, the criteria must be specified in the environmental authority. The investigation must at a minimum include the following:
- a) a study of options available for minimising final void area and volume;
- b) develop design criteria for rehabilitation of final voids;

- c) a void hydrology study, addressing the long-term water balance in the voids, connections to groundwater resources and water quality parameters in the long-term;
- d) a pit wall stability study, considering the effects of long-term erosion and weathering of the pit wall and the effects of significant hydrological events;
- e) a study of void capability to support native flora and fauna; and
- f) a proposal/s for end of mine void rehabilitation success criteria and final void areas and volumes.

These studies will be undertaken during the life of the mine, and will include detailed research and modelling.

#### Nature Conservation

**F8** A buffer distance of not less than **one hundred (100) m** must be retained on either side of the vegetation along New Chum Creek within ML 70313, to minimise environmental impacts to regional ecosystems except as indicated in **Table 32**.

Description	Easting (GDA 94)	Northing (GDA 94)		
	626227	7563194		
Water Storage – West Creek	626095	7562948		
	626597	7562599		
	626615	7563108		
	Co-ordinates to be pr	Co-ordinates to be provided by [date to be		
Haul Road Crossings		nominated by proponent but prior to		
	construction]			

Table 32 (Work areas in nature conservation areas)

**F9** The Plan of Operations must include strategies to manage the impact of mining on ERE. The strategies must be developed and implemented prior to the commencement of construction activities.

# **Preventing Contaminant Release to Land**

**F10** Contaminants must not be released to land in a manner which constitutes nuisance, material or serious environmental harm.

# Storage and Handling of Flammable and Combustible Liquids

- **F11** All flammable and combustible liquids must be contained within an on-site containment system and controlled in a manner that prevents environmental harm and maintained in accordance with the current version of AS 1940:2004 The storage and handling of flammable and combustible liquids.
- **F12** Spillage of all flammable and combustible liquids must be controlled in a manner that prevents environmental harm.

# **Storage and Handling of Chemicals**

**F13** All chemicals must be contained within an on-site containment system and controlled in a manner that prevents environmental harm and maintained in accordance with the current version of the relevant Australian Standard.

**F14** Spillage of all chemicals must be controlled in a manner that prevents environmental harm.

#### **Infrastructure**

**F15** All infrastructure, constructed by or for the environmental authority holder during the licensed activities including water storage structures, must be removed from the site prior to surrender, except where agreed in writing by the post mining landowner / holder.

# **Exploration Activities**

**F16** The environmental authority holder must comply with each of the Standard Environmental Conditions contained in the Code of Environmental Compliance for Exploration and Mineral Development Projects, except Condition 13 of the Code, which is replaced by the conditions in this environmental authority.

# **Exploration within ERE Buffer**

F17 This environmental authority authorises exploration activities within the 500 m
¥ 1
buffer of ERE on the following tenements only:
□MDL 136;
□ML 70313; and
□ EPC 728.
Exploration activities are not permitted within ERE.

- **F18** This environmental authority authorises the construction of Line of Oxidation drilling activities within the ERE buffer on MDL 136 and ML 70313 as shown in **Attachment 1 Figure 2** (of Environmental Authority No. MIN100344305).
- **F19** This environmental authority authorises the construction of 2 drill holes within the ERE buffer of MDL 136 as shown in **Attachment 1 Figure 3** (of Environmental Authority No. MIN100344305), and 6 drill holes within ERE buffer of EPC 728 as shown in **Attachment 1 Figure 4** (of Environmental Authority No. MIN100344305).

#### Land Disturbance on ERE Buffer

- **F20** The operational area of drill sites must not exceed 1,000 square metres (m<sup>2</sup>).
- **F21** Drill holes are limited to no more than 200 millimetres (mm) in diameter.
- **F22** The construction of sumps must not exceed 10m2
- **F23** Topsoil stripping must be limited to the sump area.
- **F24** Exploration activities within the ERE buffer must not involve costeaning or bulk sampling activities.
- **F25** Exploration camps are not permitted to be established within ERE or ERE buffer.

#### Tracks on ERE Buffer

- **F26** Existing access and fence line tracks must be used where possible. New tracks must be in accordance with the *Code of Environmental Compliance for Exploration and Mineral Development Projects*.
- **F27** Constructed tracks must be less than 5 m in width.
- **F28** Authorised track construction involving blade clearing of established ground cover vegetation and/or clearing of mature trees is to be minimised.
- **F29** All new tracks are to be recorded with GPS co-ordinates and records kept of their location and made available to the administering authority on request.
- **F30** The environmental authority holder must consult with the landowner prior to establishing any new roads or tracks.
- **F31** All tracks, including water course crossings, must be commissioned and operated in accordance with the *Code of Environmental Compliance for Exploration and Mineral Development Projects*.

## Rehabilitation and Reporting for Exploration on ERE Buffer

- **F32** Rehabilitation of drill sites and sumps will be in accordance with the *Code of Environmental Compliance for Exploration and Mineral Development Projects*.
- **F33** Rehabilitation of areas disturbed within the ERE buffer must be completed as soon as practicable, but no longer than **three** (3) **months** after completion of the disturbance activity.
- **F34** The environmental authority holder must revegetate disturbed areas of ERE buffer with native plant species endemic to the area that will promote the same vegetation type and density of cover to that of the surrounding undisturbed areas in the ERE buffer.
- **F35** Annual return reporting must include details of the exploration activities undertaken and details of progressive rehabilitation works completed to demonstrate compliance with rehabilitation requirements of the environmental authority.
- **F36** The environmental authority holder must complete rehabilitation of disturbed areas to the satisfaction of the administering authority.

## **Department Interest: Community**

### **Complaint Response**

**H1** All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

- **H2** The holder of this environmental authority must record the following details for all complaints received and provide this information to the administering authority on request:
- a) time, date, name and contact details of the complainant;
- b) reasons for the complaint;
- c) conclusions formed; and
- d) any actions taken.
- **H3** In consultation with the administering authority, cooperate with and participate in any community environmental liaison committee established in respect of either the licensed place specifically or the industrial estate where the licensed place is located.