

Permit

Environmental Protection Act 1994

Environmental authority EA0000990

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

Environmental authority number: EA0000990

Environmental authority takes effect on 05 October 2017

Environmental authority holder(s)

Name(s)	Registered address
Civil & Mining Resources Pty Ltd	Suite 3402 Riverside Centre 123 Eagle Street BRISBANE CITY QLD 4000
LD DAWSON PTY LTD	16 Spitfire PI RUTHERFORD NSW 2320 Australia

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
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Additional information for applicants

Environmentally relevant activities

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

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA 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 an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or

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- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or
- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
- c) otherwise-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the Sustainable Planning Act 2009 or an SDA Approval under the State Development and Public Works Organisation Act 1971), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Minerals Business Centre
Department of Environment and Science
Phone: 07 4222 5352
Email: ESCairns@des.qld.gov.au

Date issued: 09 January 2020

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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)

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Department of Environment and Heritage Protection



Legislative Requirements and Conditions of Environmental Authority

Legislative Requirements

PLR022 This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site. For example, this may include permits / approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access state controlled roads), the Department of Natural Resources and Mines (to clear vegetation), and the Department of Agriculture and Fisheries (to clear marine plants or to obtain a quarry material allocation).

Condition General

RMG072 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:

(a) comply with the amended or changed standard, policy or guideline within two years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation.

(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.

RMG061 In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with Figure 1: Project Infrastructure Layout-Mine Area.

RMG060 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.

RMG064 The holder of this environmental authority must:

- (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
- (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.

RMG065 Except where specified otherwise in another condition of this environmental authority, all monitoring records or reports required by this environmental authority must be kept for a period of not less than five years.

RMG066 The activity must not be carried out until the environmental authority holder has given financial assurance 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 Act.

RMG067 The amount of financial assurance must be reviewed by the holder of this environmental authority when the authority is amended.

RMG069 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.

- RMG070 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:
- (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
 - (c) proposed actions to prevent a recurrence of the emergency or incident.
- RMG071 The holder of this environmental authority must:
- (a) within one year of the commencement of this environmental authority, obtain from an appropriately qualified person a report on compliance with the conditions of this environmental authority
 - (b) obtain further such reports at regular intervals, not exceeding three-yearly intervals, from the completion of the report referred to above
 - (c) provide each report to the administering authority within 90 days of its completion.
- RSG006 General waste generated by mining activities must be removed to a licenced waste facility that is lawfully able to accept the waste under the Environmental Protection Act 1994.
- RMG073 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.
- RSG002 (S) The holder of the environmental authority must plan and conduct activities on site to prevent any potential or actual release of a hazardous contaminant.

Note - Section 442 of the Environmental Protection Act 1994 makes it an offence to release a prescribed contaminant. A prescribed contaminant is a contaminant prescribed by an Environmental Protection Policy.

Note - Section 443 of the Environmental Protection Act 1994 makes it an offence to cause or allow a contaminant to be placed in a position where it could reasonably be expected to cause serious or material environmental harm or environmental nuisance.

RSG003 (S) The holder of the environmental authority must ensure that spills of hazardous contaminants are cleaned up as quickly as practicable. Such spillage must not be cleaned up by hosing, sweeping or otherwise releasing such contaminants to any watercourse, waterway, groundwater, wetland or lake.

Note - If a mining lease becomes Significantly Disturbed Land because it is contaminated, it ceases to be significantly disturbed land if a Suitability Statement is issued for the land. Refer to Chapter 7, Part 8 of the Environmental Protection Act 1994.

Note - A Site Management Plan approved under Chapter 7, Part 8 of the Environmental Protection Act 1994 may be required by the administering authority for sites recorded on the Environmental Management Register or the Contaminated Land Register. Such sites may include acid producing waste rock stockpiles or tailings dams containing acid producing wastes.

RSG007 (S) The holder of the environmental authority must not directly or indirectly release fuels, oils, lubricants or other contaminants to any watercourse, waterway, groundwater, wetland or lake.

Note - To prevent the direct or indirect release of fuels, lubricants or other contaminants to any watercourse, waterway, groundwater, wetland or lake the following measures or similar measures can be used:

- maintain all refuelling equipment in good working order;
- use groundsheets or drip trays to capture spillage during maintenance of machinery and vehicles;
- locate all fuel storages within an impermeable bund;
- ensure all liquid containment, including fuel tank bunds and process water ponds, have a volume at least equal to the design volume plus an additional 10% of that volume; and

- where practical, undertake all refuelling and routine maintenance of vehicles within designated service areas.

Condition

Acoustic

RMN004 The holder of this environmental authority must ensure that noise generated by the mining activities does not cause the criteria in Table RMN004(1) - Noise limits to be exceeded at a sensitive place or commercial place.

Table RMN004(1) - Noise limits

<u>Sensitive place</u>						
Noise level dB(A) measured as:	Monday to Saturday			Sundays and public holidays		
	7am to 6pm	6pm to 10pm	10pm to 7am	9am to 6pm	6pm to 10pm	10pm to 9am
L _{Aeq} , adj, 15 mins	CV = 50 AV = 5	CV = 45 AV = 5	CV = 40 AV = 0	CV = 45 AV = 5	CV = 40 AV = 5	CV = 35 AV = 0
L _{A1} , adj, 15 mins	CV = 55 AV = 10	CV = 50 AV = 10	CV = 45 AV = 5	CV = 50 AV = 10	CV = 45 AV = 10	CV = 40 AV = 5
<u>Commercial place</u>						
Noise level dB(A) measured as:	Monday to Saturday			Sundays and public holidays		
	7am to 6pm	6pm to 10pm	10pm to 7am	7am to 6pm	6pm to 10pm	10pm to 7am

$L_{Aeq, adj, 15 mins}$	CV = 55 AV = 10	CV = 50 AV = 10	CV = 45 AV = 5	CV = 50 AV = 10	CV = 45 AV = 10	CV = 40 AV = 5
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Note:

(1) CV = Critical Value

(2) AV = Adjustment Value

(3) to calculate noise limits in Table RMN004(1):

(i) if $bg \leq (CV - AV)$: Noise limit = $bg + AV$

(ii) if $(CV - AV) < bg \leq CV$: Noise limit = CV

(iii) if $bg > CV$: Noise limit = $bg + 0$

(4) in the event that measured bg ($L_{A90, adj, 15 mins}$) is less than 30 dB(A), then 30 dB(A) can be substituted for the measured background level

(5) bg = background noise level ($L_{A90, adj, 15 mins}$) measured over 3-5 days at the nearest sensitive receptor

(6) if the project is unable to meet the noise limits as calculated above alternative limits may be calculated using the processes outlined in the "Planning for Noise Control" guideline.

RMN005 The holder of this environmental authority must ensure that blasting does not cause the limits for peak particle velocity and air blast overpressure in Table RMN005(1) - Blasting noise limits to be exceeded at a sensitive place or commercial place.
Table RMN005(1) - Blasting noise limits

Blasting noise limits	Sensitive or Commercial Place Limits	
	7am to 6pm	6pm to 7am
Air blast overpressure	115 dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120 dB (Linear) Peak at any time	No blasting
Ground vibration peak particle velocity	5mm/second peak particle velocity for 9 out of 10 consecutive blasts and not greater than 10 mm/second peak particle velocity at any time	No blasting

Condition

Air

RNA015 The environmental authority holder 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:

(a) dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with the most recent version of Australian Standard AS3580.10.1 Methods for sampling and analysis of ambient air-Determination of particulate matter-Deposited matter - Gravimetric method.

(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 five exceedances recorded each year, when monitored in accordance with the most recent version of either:

(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, or

(ii) Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air-Determination of suspended particulate matter-PM₁₀ low volume sampler-Gravimetric method.

(c) a concentration of particulate matter with an aerodynamic diameter of less than 2.5 micrometres (PM_{2.5}) suspended in the atmosphere of 25 micrograms per cubic metre over a 24-hour averaging time, when monitored in accordance with the most recent version of AS/NZS3580.9.10 Methods for sampling and analysis of ambient air-Determination of suspended particulate matter-PM (sub)_{2.5}(/sub) low volume sampler-Gravimetric method.

(d) 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 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.

Condition

Land

RML053 Treat and manage acid sulphate soils in accordance with the latest edition of the Queensland Acid Sulfate Soil Technical Manual.

RML062 Land disturbed by mining must be rehabilitated in accordance with Table RML062 – Rehabilitation requirements

Table RML062 – Rehabilitation requirements

<u>Mine domain</u>	<u>Mine feature name</u>	<u>Rehabilitation goal</u>	<u>Rehabilitation objectives</u>	<u>Indicators</u>	<u>Completion criteria</u>

Active mine area	Test pit and test adit	1. Safe	Safe for humans and animals on decommissioning and into the foreseeable future.	Structurally and geotechnically adequate for the proposed final land use. Visual observation of erosion.	Test pit backfilled. Test adit sealed. Slopes $\leq 10\%$ to allow egress of livestock and wildlife.
		2. Non-polluting	Not a source of environmental harm to the surrounding environment.	Visual observation of erosion No water retention.	Minimal evidence of erosion. No environmental harm caused by run-off from final landform. Final landform is free draining.
		3. Stable	Vegetation cover equivalent to the surrounding environment. Low probability of erosion.	Percentage ground cover. Visual observation of erosion.	Evidence that the percentage ground cover of the rehabilitated areas is similar to the surrounding undisturbed environment and evidence that the appropriate control measures are in place to

					minimise erosion.
		4. Self-sustaining	Native communities endemic to the surrounding area or capable of supporting low intensity grazing.	Monitoring of species composition, species richness and percentage ground cover.	Evidence that the vegetation species richness/composition and vegetation cover/density of the rehabilitated areas is similar to the surrounding undisturbed environment and is self-sustaining over time.
Sediment Dams	Sediment dams and surface water control infrastructure.	1. Safe	Safe for humans and animals on decommissioning and into the foreseeable future.	Water quality testing (if to be retained). Retention agreement with landowner in place. Structure removed.	Safely accessible for use by animals (if to be retained). Water quality meets the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000) for stock drinking water or structure removed.
		2. Non-polluting	Sediment removed (if to be retained) and water quality meets	Water quality monitoring (if to be retained).	Water quality meets the ANZECC 2000 guidelines for stock drinking

			ANZECC 2000 guidelines for stock drinking water.		water (if to be retained).
		3. Stable	Vegetation cover to minimise erosion of banks (if to be retained).	Percentage ground cover. Visual observation of erosion.	Evidence that the percentage ground cover of the rehabilitated areas is similar to the surrounding undisturbed environment and evidence that the appropriate control measures are in place to minimise erosion.
		4. Self-sustaining	Native communities endemic to the surrounding area or capable of supporting low intensity grazing.	Monitoring of species composition, species richness and percentage ground cover.	Evidence that the vegetation species richness/composition and vegetation cover/density of the rehabilitated areas is similar to the surrounding undisturbed environment and is self-sustaining over time.
Infrastructure	Buildings; Roads; Hardstand areas; ROM pad;	1. Safe	Safe for humans and animals on decommissioning and into	Infrastructure removed or retained by	Evidence that adequate safety measures are in place for all infrastructure

	Stockpile areas; Chemical and fuels storages.		the foreseeable future.	agreement .	retained by agreement.
		2. Non-polluting	Hazardous material adequately managed, presenting a low risk of environmental harm.	Contaminated land site investigation.	No contaminated land area identified. The land has either been removed from the environmental management register or the land has a site management plan approved.
		3. Stable	Vegetation cover similar to the surrounding undisturbed environment. Low probability of erosion.	Percentage ground cover. Visual observation of erosion.	Evidence that the percentage ground cover is similar to the surrounding undisturbed environment and evidence that the appropriate control measures are in place to minimise erosion.
		4. Self-sustaining	Native communities endemic to the surrounding area or capable of supporting	Monitoring of species composition, species richness and percentage	Evidence that the vegetation species richness/composition and vegetation cover/density of the rehabilitated

			low intensity grazing.	e ground cover.	areas is similar to the surrounding undisturbed environment and is self-sustaining over time.
Spoil dump	Spoil pile area	1. Safe	Safe for humans and animals on decommissioning and into the foreseeable future.	Spoil removed. Visual observation of erosion	Spoil removed and used to backfill the test pit. Remaining area graded to a landform similar to the surrounding undisturbed landform.
		2. Non-polluting	Not a source of environmental harm to the surrounding environment.	Visual observation of erosion.	Minimal evidence of erosion. No environmental harm caused by run-off from final landform.
		3. Stable	Vegetation cover similar to the surrounding undisturbed environment. Low probability of erosion.	Percentage ground cover. Visual observation of erosion.	Evidence that the percentage ground cover of the rehabilitated areas is similar to the surrounding undisturbed environment and evidence that the appropriate control

					measures are in place to minimise erosion.
		4. Self-sustaining	Native communities endemic to the surrounding area or capable of supporting low intensity grazing.	Monitoring of species composition, species richness and percentage ground cover.	Evidence that the vegetation species richness/composition and vegetation cover/density of the rehabilitated areas is similar to the surrounding undisturbed environment and is self-sustaining over time.

RML066 Minimise the potential for contamination of land by hazardous contaminants.

RSL065 (S) The holder of the environmental authority must ensure that topsoil is removed and stockpiled prior to carrying out any mining activity. Prevent or minimise the mixing and erosion of topsoil and overburden stockpiles.

Note - To separate topsoil and overburden and to prevent or minimise the erosion of these stockpiles the following measures or similar measures can be used:

- identify topsoil and overburden layers before stripping topsoil;
- store topsoil and overburden in separate stockpiles;
- install silt fences or bunding around the stockpiles;
- where practical reuse topsoil stockpiles within 12 months;
- establish and maintain a temporary cover crop on stockpiles; and
- limit the height of topsoil stockpiles to 2 metres.

- RSL066 (S) The holder of the environmental authority must prevent the spread of Declared Plants by ensuring that all vehicles and machinery are adequately cleaned before taking the vehicles and machinery out of a Declared Plant Area.

Note - Every precaution should be taken to ensure there is no dispersal of Parthenium weed or the seed of any other declared plant within the meaning of the Land Protection (Pest and Stock Route Management) Act 2002 as a result of mining activities or as a result of access to the area of the mining tenement.

Note - The Department of Agriculture and Fisheries provided Pest Fact sheets for declared plants in Queensland as well as clean down procedures for vehicles and machinery working in declared plant areas. For advice on declared plant areas contact the Department of Agriculture and Fisheries or your Local Government.

- RSL068 (S) The holder of the environmental authority must consult with the landowner prior to establishing any new roads and tracks.

Note - Refer to the Technical Guidelines in RA005 when planning and constructing all new roads and tracks.

Note - Repair all damage to existing private roads and tracks resulting from mining activities, so that they are as trafficable as they were prior to any damage.

- RSL069 (S) When constructing new roads and tracks, the holder of the environmental authority must ensure that the area and duration of disturbance to land, vegetation and watercourses is minimised.

Note - When planning and constructing new roads and tracks the following measures or similar measures can be used to minimise the area and duration of disturbance of land, vegetation and watercourses:

- wherever possible use or upgrade existing roads and tracks;
- construct roads and tracks along natural grades;
- minimise the width of roads and tracks;
- minimise the number of crossings in riverine areas;
- construct crossings in riverine areas in a stable section of the bed;
- avoid constructing roads or tracks that run straight down the bank to the crossing;
- do not disadvantage other users of existing public roads & tracks;

- construct a bed level causeway, a culvert or a bridge where natural bed conditions within a watercourse will not carry the intended traffic load or where crossing of the bed will generate a significant increase in turbidity;
- minimise the number of cuts and fills in riverine areas;
- position cuts and fills in riverine areas to minimise risk of erosion from subsequent flood events;
- position crossings to prevent flow being directed towards the banks and provide erosion resistance to the bed and banks downstream of a crossing for a distance equal to the width of the normal flow channel;
- do not create any downstream or upstream drops at the lip of culverts or causeways;
- regularly clean out culverts, bridges and causeways to prevent flow being impeded or redirected; and
- construct in-stream crossings outside of main fish migration periods.

RSL075 (S) The holder of the environmental authority must spread seeds or plant species that will promote vegetation of a similar species and density of cover to that of the surrounding undisturbed areas or vegetation that is appropriate for providing erosion control and stabilisation of the disturbed areas.

Note - To revegetate disturbed areas the following measures or similar measures can be used:

- for areas which have become compacted during the project, break up the soil surface to a depth that is suitable for establishing vegetation; and
- spread stockpiled topsoil over disturbed areas to a depth that is suitable as a rooting medium for the revegetation process; and
- provide suitable nutrient conditions for planting by using fertiliser if necessary; and
- collect and store native seeds to be used in rehabilitation.

Note - When revegetating disturbed areas, the holder of the environmental authority should plant native species endemic to the area and location in the landscape (e.g. if clearing has occurred in a riverine area, revegetate the disturbed area using local riverine species).

Note - Vegetation used to provide erosion protection and stabilise disturbed areas in the short term should be comprised of sterile, short-lived species (e.g. a cover crop). However, the long term aim of revegetating any disturbed area is to

establish a stable vegetation community that is similar to that of the surrounding undisturbed areas or endemic species.

Note - The environmental authority holder is not liable for rehabilitating disturbed areas that existed prior to the grant of the tenure unless those areas are disturbed during the term of the tenure.

RSL076 (S) For any Mine Infrastructure to remain after all mining activities have ceased, the holder of the environmental authority must obtain the written agreement of the land owner stating they will take over responsibility for that infrastructure.

RSL077 (S) The holder of the environmental authority must complete rehabilitation of disturbed areas to the satisfaction of the administering authority.
Note - Condition RSL077 is a requirement of the Environmental Protection Act 1994. The environmental authority holder must submit a Final Rehabilitation Report (FRR) and a compliance statement prior to the cancellation or expiry of the mining tenement. The surrender of the environmental authority will not be granted until the administering authority has accepted the FRR and the compliance statement.

Condition

Nature Conservation

RSL067 The holder of the environmental authority must not carry out activities in a category A or B environmentally sensitive area. Activities involving machinery must not be carried out within 1km of a category A environmentally sensitive area. The holder is authorised to carry out activities within 500m of a category B environmentally sensitive areas within MDL521. Prior to carrying out activities in a category C environmentally sensitive area, consult with the relevant administering authority and the Environmental Protection Agency. If it is determined through the consultation that additional conditions are necessary, the holder must comply with those conditions.

Note - Refer to RA002 - Environmentally sensitive areas.

Condition

Social

- RMS004 The holder of this environmental authority must record all environmental complaints received about the mining activities including:
- (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
 - (h) person responsible for resolving the complaint.
- RMS005 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.
- RMS006 The holder of this environmental authority may burn vegetation cleared in the course of carrying out extraction activities provided the activity does not cause environmental harm at any sensitive place or commercial place.
- RSS001 (S) The holder of the environmental authority must not carry out activities within 100m of a Historical, Archaeological or Ethnographic site.

Note- Refer to the Aboriginal Cultural Heritage Register established under the Aboriginal Cultural Heritage Act 2003 and the Queensland Heritage Act 1992. Prior to carrying out any activities on the mining tenement, the holder of the environmental authority should consult with the administering authority if a site has the potential to be designated as a historical, archaeological or ethnographic site.

Condition

Water

- RMW034 The holder of this environmental authority must not release contaminants to groundwater.
- RMW036 All determinations of groundwater quality and biological monitoring must be performed by an appropriately qualified person.
- RMW041 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.
- RMW048 The details of watercourse diversions planned and constructed under an environmental authority must be accurately recorded on the Register of Watercourse Diversions kept by the holder of the authority. An electronic copy must be provided to the administering authority on request.
- RMW049 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.

RMW068 All determinations of water quality and biological monitoring must be performed by an appropriately qualified person.

RMW074 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) Guideline - Activities in a Watercourse, Lake or Spring associated with Mining Activities.

RMW075 A Water Management Plan must be developed by an appropriately qualified person and implemented.

RMW076 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.

RMW077 Stormwater, other than mine affected water, is permitted to be released to waters from:

(a) erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by Condition RMW076.

(b) water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with Condition RMW075, for the purpose of ensuring water does not become mine affected water.

RSG005 (S) The holder of the environmental authority must not directly or indirectly release waste from the project area to any watercourse, waterway, groundwater, wetland or lake.

Note - When managing waste materials the following strategy should be adopted:

- avoid creating excess waste;

- reuse waste materials;
- recycle waste;
- create and utilise energy from waste;
- treat waste; and
- dispose of waste (e.g. provide rubbish containers on site).

Note - Where practicable take all General Waste to a Licensed General Waste Disposal Facility.

RSW001 (S) The holder of the environmental authority must design, install and maintain adequate banks and/or diversion drains to minimise the potential for storm water runoff to enter disturbed areas.

RSW002 (S) The holder of the environmental authority must design, install and maintain adequate erosion and sediment control structures wherever necessary to prevent or minimise erosion of disturbed areas and the sedimentation of any watercourse, waterway, wetland or lake.

Note - When designing and constructing sediment ponds refer to the "Engineering Guidelines for Queensland Construction Sites" Soil Erosion and Sediment Control.

Note - Regularly clean out sediment traps, ponds and drains and maintain them in effective working order, until erosion stability has been achieved in disturbed areas.

Note - The capacity of sediment traps, ponds, drains and banks should not be reduced below 70% of their design capacity.

RSW003 (S) The holder of the environmental authority must not directly or indirectly release wastewater to any watercourse, waterway, groundwater, wetland or lake.

Note - To prevent the direct or indirect release of waste water to any watercourse, waterway or groundwater, wetland or lake the following measures or similar measures can be used:

- where practical recycle all waste water (e.g. recycle waste water for drilling water);
- use waste water for dust suppression;

- discharge waste water onto benign overburden or waste rock heaps for absorption; and
- discharge wastewater to an evaporation pond.

Note - With regard to the on site management of water refer to the Environmental Protection (Water) Policy 2008.

Definition

PD110 Disturbed includes areas:

1. that are susceptible to erosion;
2. that are contaminated by the activity; and/or
3. upon which stockpiles of soil or other materials are located.

RD010 Administering authority is the agency that administers the environmental authority provisions under the Environmental Protection Act 1994.

RD012 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).

RD021 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.

RD041 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.

RD060 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.

RD064 Construction or constructed in relation to watercourse diversions, is the process of building, or modifying an existing diversion, but does not include investigations and testing necessary for the purpose of preparing a design plan.

RD084 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
- (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.

RD098 Environmental has the meaning in section 7 of the *Environmental Offsets Act 2014*.

RD104 Environmental nuisance has the meaning in section 15 of the *Environmental Protection Act 1994*.

RD121 Financial assurance for an environmental authority, means financial assurance given for the authority under Chapter 5, part 12, division 2 of the *Environmental Protection Act 1994*.

- RD141 Holder for a mining tenement, means a holder of the tenement under the *Mineral Resources Act 1989*, and the holder of the associated environmental authority under the *Environmental Protection Act 1994*.
- RD146 Infrastructure means water storage dams, levees, roads and tracks, buildings and other structures built for the purpose of the mining activity.
- RD150 Lake means a natural or artificial body of water, either permanent or intermittent.
- RD153 Land use means the selected post mining use of the land, which is planned to occur after the cessation of mining operations.
- RD154 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.
- RD156 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.
- RD169 m means metres.
- RD176 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.
- RD179 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.

RD180 Minimise means to reduce to the smallest possible amount or degree.

RD186 NATA means National Association of Testing Authorities, Australia.

RD187 Natural flow means the flow of water through waters caused by nature.

RD188 Non polluting means having no adverse impacts upon the receiving environment.

RD190 Notice of election has the meaning in section 18(2) Environmental Offsets Act 2014.

RD194 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).

RD196 Permanent watercourse diversion is a man-made structure that incorporates the geomorphologic, hydraulic, hydrologic and ecological components of a local watercourse and is designed, constructed, operated and maintained according to an engineering standard that ultimately achieves a self-sustaining watercourse able to function without features or characteristics that rely on ongoing maintenance or that impose a financial or other burden on the proponent, government or the community.

RD211 Receiving waters means the waters into which this environmental authority authorises releases of mine affected water.

RD219 Rehabilitation means the process of reshaping and revegetating land to restore it to a stable landform.

RD222 Release event means a surface water discharge from mine affected water storages or contaminated areas on the licensed place.

RD226 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.

RD240 Self-sustaining means not requiring on-going intervention and maintenance to maintain functional riverine processes and characteristics.

RD242 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 and 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

RD246 Significantly disturbed land means land that:

- (a) is contaminated land; or
- (b) has been disturbed and human intervention is needed to rehabilitate it.

Significantly disturbed land includes:

- (a) areas where soil has been compacted, removed, covered, exposed or stockpiled;
- (b) areas where vegetation has been removed or destroyed to an extent where the land has been made susceptible to erosion; (vegetation & topsoil)
- (c) areas where land use suitability or capability has been diminished;
- (d) areas within a watercourse, waterway, wetland or lake where mining project activities occur;
- (e) areas submerged by tailings or hazardous contaminant storage and dam walls in all cases;
- (f) areas under temporary infrastructure. Temporary infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after mining has ceased; or
- (g) areas where land has been contaminated.

However, the following areas are not included:

- (a) areas off lease (e.g. roads or tracks which provide access to the mining lease);
- (b) areas previously significantly disturbed which have achieved the rehabilitation outcomes;
- (c) by agreement with the EPA, areas previously significantly disturbed which have not achieved the rehabilitation objectives 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, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be left by agreement with the landowner. The agreement to leave permanent infrastructure must be recorded in the Landowner Agreement and lodged with the Department of Environment and Heritage Protection;
- (e) disturbances that pre-existed the grant of the tenure unless those areas are disturbed during the term of the tenure.

RD265 Strategic environmental area has the meaning in section 11(1) of the Regional Planning Interests Act 2014.

RD270 Suitably qualified and experienced person means a person who is a Registered Professional Engineer of Queensland under the provisions of the Professional Engineers Act 2002, who has an appropriate level of expertise in the structures, geomechanics, hydrology, hydraulics and environmental impact of watercourse diversions.

An appropriate level of expertise includes:

- (a) demonstrable competency, experience and expertise in:
 - (i) investigation, design or construction of watercourses diversions
 - (ii) operation and maintenance of watercourse diversions
 - (iii) geomechanics with particular emphasis on channel equilibrium, geology and geochemistry
 - (iv) hydrology with particular reference to flooding, estimation of extreme storms, water management or meteorology
 - (v) hydraulics with particular reference to sediment transport and deposition and erosion control
 - (vi) hydrogeology with particular reference to seepage and groundwater
 - (vii) solute transport processes and monitoring thereof, or
- (b) sufficient knowledge and experience to certify that where the suitably qualified and experienced person has relied on advice and information provided by other persons with relevant expertise*:
 - (i) they consider it reasonable to rely on that advice and information

(ii) the expert providing the advice and information has knowledge, competency, suitable experience and demonstrated expertise in the matters related to watercourse diversions.

*Persons with relevant expertise include:

- (a) Geomorphologist: person who has demonstrated competency and relevant experience in stream geomorphology and watercourse diversions.
- (b) Geotechnical Expert: person who has demonstrated competency and relevant experience in geotechnical assessment of soil characteristics suitable for watercourse diversions.
- (c) Vegetation Expert: person who has demonstrated competency and relevant experience in the identification, role and function of vegetation with watercourses and adjoining floodplains, and has demonstrated competency and relevant experience in revegetation of watercourse diversions and adjoining floodplains. .
- (d) Groundwater Expert: person who has demonstrated competency and relevant experience in groundwater systems.
- (e) Surface Water Expert: person who has demonstrated competency and relevant experience in hydrology.
- (f) Engineer: person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the Professional Persons Act 2002 or has similar qualifications under a respected professional registration association, and has demonstrated competency and relevant experience in design and construction of watercourse diversions.
- (g) Soils Expert: person who has demonstrated competency and relevant experience in soil classification including the physical, chemical and hydrologic analysis of soil.

RD278 Temporary watercourse diversion is a man-made structure that may incorporate geomorphologic, hydraulic, hydrologic and ecological components of a local watercourse and is designed, constructed, operated and maintained to an engineering standard that ensures the diversion does not compromise the equilibrium and performance of the diversion and adjoining watercourses. A temporary diversion is replaced by a permanent diversion, or the re-establishment of the pre existing watercourse, within the timeframe specified in the design plan.

RD279 The Act means the Environmental Protection Act 1994.

RD280 Topsoil refers to the surface layer of a soil profile, which is usually more fertile, darker in colour, better structured and supports greater biological activity than underlying layers. The surface layer may vary in depth depending on soil forming factors, including parent material, location and slope, but generally is not greater than about 300mm in depth from natural surface.

RD293 Water quality' means the chemical, physical and biological condition of water.

RD295 Water' is defined under Schedule 4 of the Water Act 2000.

RD299 Watercourse' is defined in the Water Act 2000.

RD302 Waters' refers to 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.

RD310 Wetland refers to an area of permanent or periodic/intermittent inundation, whether natural or artificial, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed 6m. Wetlands typically include areas such as lakes, swamps, marshes, estuaries or mudflats.

RD317 Archaeological site refers to a site that has physical evidence of the past, which has the potential to increase our knowledge of earlier human occupation, activities and events.

RD319 Banks means the feature which confines major flows within a watercourse. They are steeper than a terrace and are generally of a slope greater than 1:1 on outer bends. Refer to RA004 Figure 1 - Cross Section through a Watercourse.

RD321 Bund means:

- (a) an earth mound or similar structure (e.g. a concrete block wall), whether impervious or not, constructed to contain spilled material (e.g. petrol, diesel, oil etc.); or
- (b) a structure to prevent or reduce soil erosion.

RD324 Contaminant is defined in section 11 of The Environmental Protection Act 1994 as:

- (a) a gas, liquid or solid; or
 - (b) an odour; or
 - (c) an organism (whether alive or dead), including a virus; or
 - (d) energy, including noise, heat, radioactivity and electromagnetic radiation;
- or

(e) a combination of contaminants.

RD327 Contaminated land register means the register kept by the administering authority under section 541 of the Environmental Protection Act 1994.

RD330 Culvert refers to a covered channel or a pipe of large diameter conveying water below ground level. Also applies to a tunnel through which water is pumped or permitted to flow.

RD333 Density of cover (in reference to trees and/or shrubs) means the number of trees or shrubs in a specified area (e.g. 50 trees per square kilometre). With reference to understorey plant species (e.g. grasses and forbs), it means the percentage of surface area covered by a particular species.

RD334 Designated service area refers to a nominated site, selected and managed to minimise contamination of land or water, where the majority of services or maintenance of machinery or plant is to be conducted.

RD338 Environmental authority means a licence or approval issued by the administering authority under the Environmental Protection Act 1994.

RD339 Environmental management register means the register kept by the administering authority under section 541 of the Environmental Protection Act 1994.

RD342 Ethnographic site means an archaeological site of particular importance to the study of a cultural group.

RD344 Final rehabilitation report means a final rehabilitation report prepared under section 264 of the Environmental Protection Act 1994. The report assesses the extent to which the standard environmental conditions and any additional conditions of the environmental authority have been met.

RD346 General waste is defined in schedule 12 of the Environmental Protection Regulation 2008, and defines general waste as "means waste other than regulated waste". Waste rock, overburden and the contents of tailings dams are not included in the definition of general waste for the purposes of these conditions.

RD349 Hazardous contaminant is defined in schedule 4 of the Environmental Protection Act 1994, and defines a hazardous contaminant as "a contaminant that, if improperly treated, stored, disposed of or otherwise managed, is likely to cause serious or material environmental harm because of:

- (a) its quantity, concentration, acute or chronic toxic effects, carcinogenicity, teratogenicity, mutagenicity, corrosiveness, explosiveness, radioactivity, flammability; or
- (b) its physical, chemical or infectious characteristics (e.g.: spills of mercury, cyanide, petrol, diesel or oil)".

RD350 Historical site refers to a site containing objects from the past that allows the study of the way people lived and worked at that place in the past.

RD351 Landowner is defined in schedule 4 of the Environmental Protection Act 1994, and defines the owner of the land as -

- (a) The "owner" of land is-
 - (i) for freehold land-the person recorded in the freehold land register as the person entitled to the fee simple interest in the land; or
 - (ii) for land held under a lease, licence or permit under an Act-the person who holds the lease, licence or permit; or
 - (iii) for trust land under the Land Act 1994-the trustees of the land; or
 - (iv) for Aboriginal land under the Aboriginal Land Act 1991-the persons to whom the land has been transferred or granted; or
 - (v) for Torres Strait Islander land under the Torres Strait Islander Land Act 1991-the persons to whom the land has been transferred or granted; or
 - (vi) for land for which there is a native title holder under the Native Title Act 1993 (Cwlth) -each registered native title party in relation to the land.
- (b) Also, a mortgagee of land is the owner of the land if-
 - (i) the mortgagee is acting as a mortgagee in possession of the land and has the exclusive management and control of the land; or
 - (ii) the mortgagee, or a person appointed by the mortgagee, is in possession of the land and has the exclusive management and control of the land.

RD352 Licensed general waste disposal facility refers to a site authorised by the administering authority to receive general waste or limited regulated waste (e.g. a rubbish dump).

RD354 Material environmental harm is defined in section 16 of the Environmental Protection Act 1994, and defines material environmental harm as:

- (a) material environmental harm is environmental harm (other than environmental nuisance)-
- (i) that is not trivial or negligible in nature, extent or context; or
 - (ii) that causes actual or potential loss or damage to property of an amount of, or amounts totalling, more than the threshold amount but less than the maximum amount; or
 - (iii) that results in costs of more than the threshold amount but less than the maximum amount being incurred in taking appropriate action to -
 - 1. prevent or minimise the harm; and
 - 2. rehabilitate or restore the environment to its condition before the harm.

In this section -

"maximum amount" means the threshold amount for serious environmental harm.

"threshold amount" means \$5 000 or, if a greater amount is prescribed by regulation, the greater amount.

RD361 Normal flow channel is represented in RA004, Figure 1 - 'Cross Section Through a Watercourse' and Figure 2 - 'Plan View of a Watercourse'.

RD365 Overburden refers to material overlying a mineral ore deposit, up to but not including the topsoil.

RD371 Riverine area refers to the land adjoining and associated with watercourses, including the bed, banks, adjoining terraced land and riparian vegetation. Refer to RA004, Figure 1 "Cross Section Through a Watercourse".

RD373 Sediment pond means a bunded or excavated structure used to contain and settle waterborne sediment running off disturbed areas.

RD374 Sediment trap means a device used to filter waterborne sediment running off disturbed areas. May include silt fences, hay bales or grassed strips.

RD375 Waterway means a naturally occurring feature where surface water runoff normally collects, such as a clearly defined swale or gully, but only flows in response to a local rainfall event.

RD376 The Environmental Protection Act 1994 defines a suitability statement as:

for land, means a statement about the uses and activities for which the land is suitable.

RD377 Site management plan refers to a site management plan approved under Chapter 7, part 8 of the Environmental Protection Act 1994.

RD378 Technical guidelines means guidelines that indicate best practice environmental management.

RD382 Tailings dam means a dam used to collect the solid residues resulting from mineral ore processing.

RD389 Declared plant area, areas designated by the Department of Agriculture and Fisheries or Local Government as areas infested with plants declared under Land Protection (Pest and Stock Route Management) Act 2002.

Appendices

RA004 RA004: Watercourse figures

RA005 RA005: Technical guidelines

Australian Standard 1940 - The storage and handling of flammable and combustible liquids. Standards Australia (1993).

Australian Water Quality Guidelines for Fresh and Marine Water Quality, Australian and New Zealand Environment and Conservation Council (1992).

Commonwealth Best Practice Environmental Management in Mining Guidelines, Environment Australia.

Dredging, Extraction and Spoil Disposal, Fish Habitat Management Operational Policy: FHMOP 004, Department of Primary Industries (1998).

Farm Water Supplies Design Manual, Department of Primary Industries, (1992).

Guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils (ASS) in Queensland, Department of Natural Resources (1998).

Soil Erosion and Sediment Control - Engineering Guidelines for Queensland Construction Sites, The Institution of Engineers, Australia, Queensland Division (1996).

Technical Guidelines for Environmental Management of Exploration and Mining, Department of Mines and Energy, Queensland, 1995.

The Conservation Status of Queensland's Bioregional Ecosystems, Environmental Protection Agency (1999).

RA002 RA002: Environmentally sensitive areas

Category A Environmentally Sensitive Areas

Category A Environmentally sensitive areas are defined in Schedule 12, Part 1 of the Environmental Protection Regulation 2008 and reproduced below.

A category A environmentally sensitive area means any of the following-

- (a) any of the following under the Nature Conservation Act 1992-
 - (i) a national park;
 - (ii) a national park (Aboriginal land);
 - (iii) a national park (Torres Strait Islander land);
 - (iv) a national park (Cape York Peninsula Aboriginal land);
 - (v) a regional park (general);
 - (vi) a forest reserve;
- (b) the wet tropics area under the Wet Tropics World Heritage Protection and Management Act 1993;
- (c) the Great Barrier Reef Region under the Great Barrier Reef Marine Park Act 1975 (Cwlth);
- (d) a marine park under the Marine Parks Act 2004, other than a part of the park that is a general use zone under that Act.

Category B Environmentally Sensitive Areas

Category B Environmentally sensitive areas are defined in Schedule 12, Part 1 of the Environmental Protection Regulation 2008 and reproduced below.

A category B environmentally sensitive area means any of the following-

- (a) any of the following areas under the *Nature Conservation Act 1992*-
 - (i) a coordinated conservation area;
 - (ii) an area of critical habitat or major interest identified under a conservation plan;
 - (iii) an area subject to an interim conservation order;
- (b) an area subject to the following conventions to which Australia is a signatory-

- (i) the 'Convention on the Conservation of Migratory Species of Wild Animals' (Bonn, 23 June 1979);
- (ii) the 'Convention on Wetlands of International Importance, especially as Waterfowl Habitat' (Ramsar, Iran, 2 February 1971);
- (iii) the 'Convention Concerning the Protection of the World Cultural and Natural Heritage' (Paris, 23 November 1972);
- (c) a zone of a marine park under the *Marine Parks Act 2004*;
- (d) an area to the seaward side of the highest astronomical tide;
- (e) the following under the *Queensland Heritage Act 1992*-
 - (i) a place of cultural heritage significance;
 - (ii) a Queensland heritage place, unless there is an exemption certificate issued under that Act;
- (f) an area recorded in the Aboriginal Cultural Heritage Register established under the *Aboriginal Cultural Heritage Act 2003*, section 46, other than the area known as the 'Stanbroke Pastoral Development Holding', leased under the *Land Act 1994* by lease number PH 13/5398;
- (g) a feature protection area, State forest park or scientific area under the *Forestry Act 1959*;
- (h) a declared fish habitat area under the *Fisheries Act 1994*;
- (i) a place in which a marine plant under the *Fisheries Act 1994* is situated;
- (j) an endangered regional ecosystem identified in the database known as the 'Regional ecosystem description database' kept by the department.

Category C Environmentally Sensitive Areas

Land Area Classification	Administering Legislation	Administering Authority
Nature Refuges; and Resource Reserves	<i>Nature Conservation Act 1992</i>	Department of Environment and Heritage Protection
Declared Catchment Areas; Declared Irrigation and Irrigation Project Areas; and Water Reservoirs and Drainage Areas	Water Act 2000, various Water Board Acts	Department of Natural Resources and Mines and/or Relevant Storage Operator or Board
River Improvement Areas	<i>River Improvement Trust Act 1940</i>	Department of Natural Resources and Mines and the Relevant River Trust
Designated Landscape Area (e.g.: Stanbroke Pastoral Holding)	<i>Aboriginal Cultural Heritage Act 2003</i>	Department of Aboriginal and Torres Strait Islander Partnerships

Historic Mining Sites	Nil (Inter Departmental Notifications)	Department of Environment and Heritage Protection and the Department of Natural Resources and Mines
State Forest or Timber Reserves	<i>Forestry Act 1959</i>	Department of National Parks, Sport and Racing
DPI Research Sites	Nil (Inter Departmental Notifications)	Department of Agricultural and Fisheries
Critical Areas and Public Purpose Reserves	<i>Land Act 1994</i>	Department of Natural Resources and Mines
Areas under Coastal Management Plans and Control Districts	<i>Coastal Protection and Management Act 1995</i>	Department of Environment and Heritage Protection
An area subject to a State Planning Policy that the policy declares is in need of environmental protection	<i>Planning Act 2016</i>	Department of State Development, Infrastructure and Planning
Erosion Prone Areas and Coastal Management Control Districts	<i>Coastal Protection and Management Act 1995</i>	Department of Environment and Heritage Protection
Areas of land occupied by the Bureau of Sugar Experiment Stations to conduct research	<i>Sugar Industry Act 1999</i>	Department of Agricultural and Fisheries

Figure 1 - Project Infrastructure Layout-Mine Area



RA004: Watercourse figures

Figure 1: cross section through a watercourse

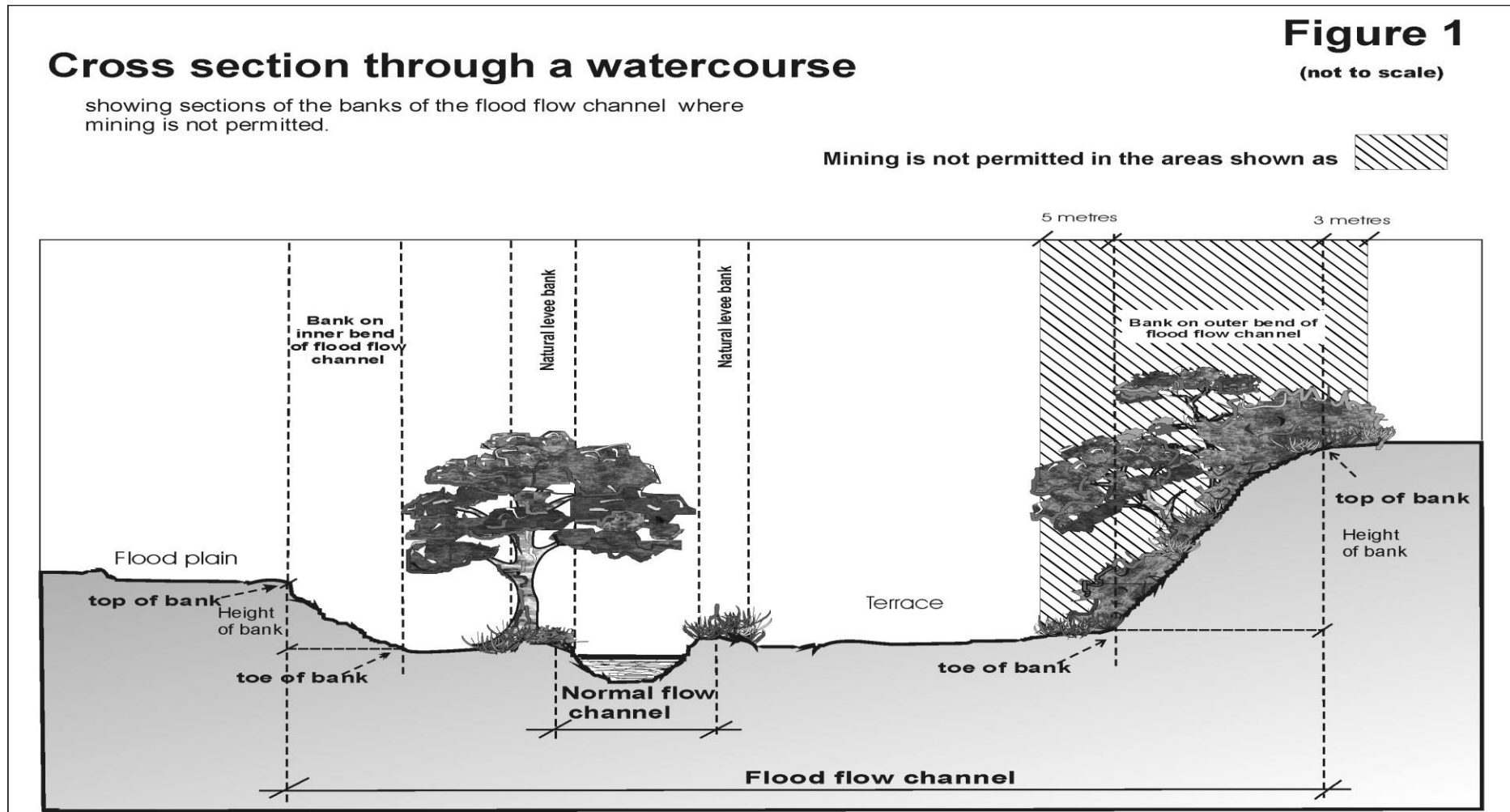


Figure 2: Plan of a watercourse

