

ITEM 6429929
101/0000002-001(E)

Assessment Report

Environmental Protection Act 1994

Variation or amendment application

This assessment report is for variation or amendment applications for environmental authorities for environmentally relevant activities under the Environmental Protection Act 1994, modified to assess this specific application in accordance with the version of the Environmental Protection Act 1994 (current as at 14 March 2013) and the Environmental Protection Regulations 2008 (reprint 2F effective 9 November 2012) that were in effect immediately prior to introduction of the Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012.

Note: checkboxes disabled to allow use of track changes. Use 'insert symbol' to insert ticks or crosses as required.

PROJECT NAME: <i>East End Mine</i>	
PRINCIPAL APPLICANT: <i>Cement Australia (Exploration) Pty Ltd</i>	
JOINT APPLICANTS: <i>Cement Australia (Queensland) Pty Limited</i>	
PRINCIPAL ADDRESS: <i>40 McDougall Street, MILTON QLD 4064</i>	
AGENT/ SERVICE ADDRESS: <i>18 Station Ave, DARRA QLD 4076</i>	
ERA DESCRIPTION: <i>Mining – ML Other – 21 Site Specific</i>	
LOCATION DESCRIPTION: <i>7km south west of Mount Larcom and approximately 28km south west of Gladstone</i>	
TENURE DESCRIPTION: <i>ML3629, ML3630, ML3631, ML3632, ML3659, ML7629, ML80002, ML80127, (application is to add ML80156)</i>	
ECOTRACK PROJECT NO: <i>173754</i>	ENVIRONMENTAL AUTHORITY NO: <i>EPML00658113</i>
FILE NO: <i>101/0000002. (Underground water impact report file: 101/0023162)(File related to EIS and assessment of this application only, prior to 2016: 101/0005405), (formerly CWR084965, GLT/670)</i>	
REGISTERED SUITABLE OPERATOR NO: <i>557687</i>	

1. Type of application

- ☐ Variation application – change to standard conditions
- ☒ Amend an existing Environmental Authority¹
- ☐ Minor amendment – condition conversion → go to 2
- ☐ Minor amendment (threshold) → go to 3
- ☒ Major amendment; Has the assessment fee been received?
- ☒ Yes → go to 3
- ☐ No The assessment fee must be paid before the assessment of the amendment application can proceed (s228(3)). The applicant should be contacted to discuss outstanding fee.

¹ Applicants are excluded from applying to amend their EA if they triggered a material change of use under SPA (and therefore needed a development approval (DA)) and have not applied for their DA first.

2. Has the applicant signed written declaration that they can comply with eligibility criteria and standard conditions for the ERA to which the authority relates?

- ☐ Yes → go to 11
- ☐ No Have applicant complete the declaration, or → go to 11 and recommend refusal

3. Is the application requesting amendment of a standard condition that requires the relevant activity comply with the relevant eligibility criteria?

- ☐ Yes → you may wish to give written refusal of the amendment application within 10 BD of its receipt and, where reasonable, consider whether a site-specific application should also be required under section 227A. In this instance, no further assessment or assessment level decision is necessary. If it is not reasonable to refuse the application and require a site specific application (e.g. where the eligibility criteria require that the activity does not have a sensitive receptor within 1km, and a sensitive receptor is subsequently established within 1k of the existing activity) the application may proceed as a major amendment.
- ☒ No

4. Background

East End Mine Project

East End Mine (EEM), a limestone and clay open cut mining operation located approximately 7km southwest of Larcom (28km south west of Gladstone), is operated under environmental authority EPML00658113 (the EA) which authorises mining activities on mining leases (ML) 3629, 3630, 3631, 3632, 3659, 7629, 80002, and 80127.

The EA is held jointly by Cement Australia (Exploration) Pty Ltd (CAE) and Cement Australia (Queensland) Pty Ltd, both companies are part of the Cement Australia Group that is owned by Holcim and the Heidelberg Cement Subsidiary Hanson, herein referred to jointly as Cement Australia (CA).

The mine employs approximately 40 people and produces approximately 2.5 million tonnes per year (Mt/y) of limestone and clay from an open cut pit on ML3631 which is supplied by rail to the cement kiln at Fishermans Landing, north of Gladstone, to be used for manufacturing cement clinker. Mining operations commenced at EEM in 1980.

Proposed EA Amendment Description

On 1 December 2008, the department received an application to amend the EA to incorporate new MLA80156 and to expand the footprint of current mining activities. The application proposes to:

- Expand the open cut pit to the south east onto ML80156 (existing infrastructure on other ML's will continue to be utilised);
- Construct a haul road within the open cut pit to connect with the existing haul road and infrastructure to the north-west;
- Construct an earthen bund wall to prevent flood waters from entering the pit and retain the majority of the pit water at cessation of mining. The proposed bund wall would be 6.5m above the flood plain and approximately 1.3 km long between Larcom Creek and Scrub Creek at the Southern extent of mining and would remain after mining ceases.

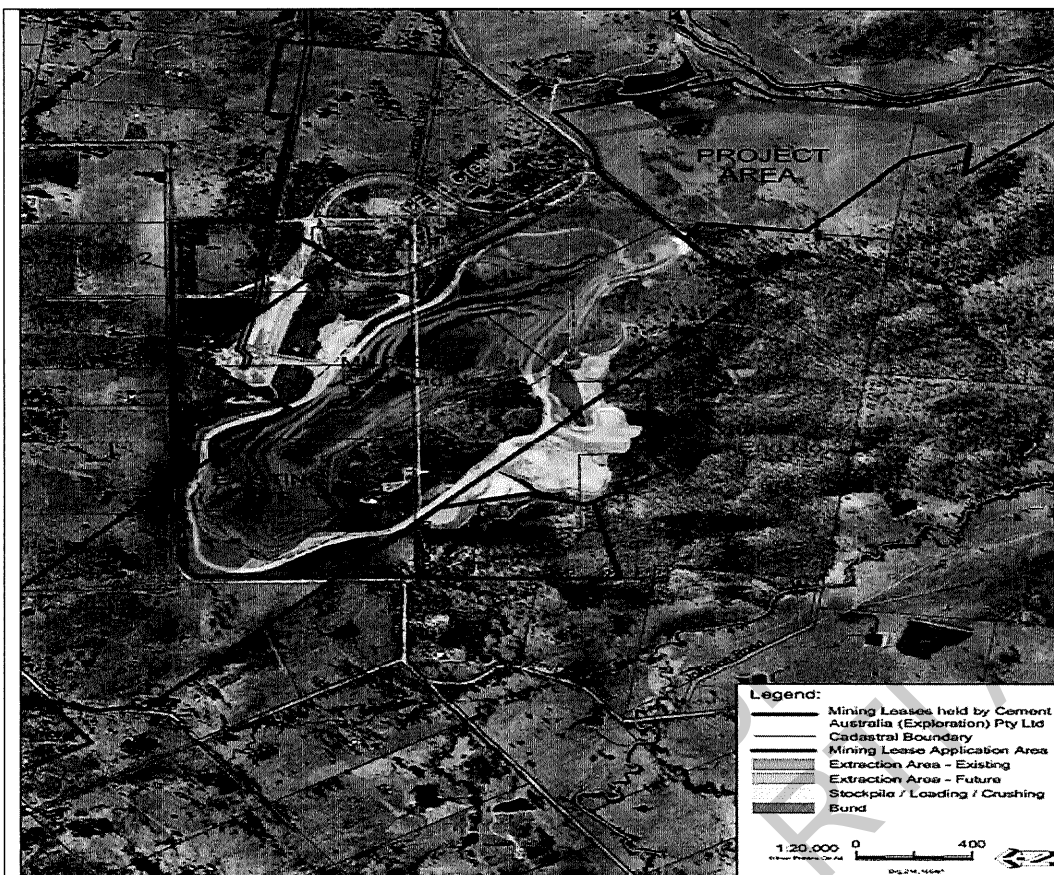


Figure 1: Project area layout (Figure 2 – Project Area, EM Plan July 2016)

Of the 86.84 ha area of MLA80156, 59.9 ha would be subject to disturbance associated with mining operations. The southern extent of MLA80156 would not be mined due to the confluence of scrub and Larcom Creek; the occurrence of volcanoclastic rock, the provision for a 100m wide buffer to Shultz Lagoon and a 50m wide buffer to Larcom Creek on the southeast boundary.

Mining operations on MLA80156 would be undertaken using existing mine infrastructure on other ML's including screening and crushing equipment, stockpiling facilities, a rail loop, railways, road access, rail loading plant, sewage treatment plant and ancillary mine facilities. No associated processing or maintenance infrastructure or waste disposal facility, would be located within MLA80156.

Mining would be undertaken using the same methods currently used at the existing mine which is: progressively removing vegetation (mainly pasture grass) and the upper soil layer; then removing the clay overburden by hydraulic excavator or front end loader, loading into haul trucks for transport to the primary crusher or adjacent surge pile on ML3631. Underlying clay and limestone is fragmented by drilling and blasting then loaded out to the primary crusher pile by combinations of excavator, front end loader and haul trucks. A series of benches, with elevations corresponding to those existing on ML3631 would be developed and advanced sequentially. Vertical separation between benches would be 15m. The maximum depth of excavation is predicted to be -90m AHD for the entire life of mine, which is about 130m below natural ground level. Operational and final batter angles and bench widths would be designed to achieve the required level of safety and stability.

It is anticipated that current mining rates of approximately 2.5 Mt/y of limestone and clay would continue after the expansion. At these rates, mine life is estimated to continue for 55 to 70 more years. The Mine Life could be further extended by the relocation of mine infrastructure.

Mining operations would be carried out below pre-development groundwater level, which would require the workings to be dewatered. As with current operations, the water would be pumped into East End Creek that runs into Shultz Lagoon, which then discharges into Larcom Creek.

Material that is unsuitable for clinker production would be generated through the mining process, including:

- High alkali limestone
- Volcanic rock, which occurs as dykes within the limestone deposit and sidewalls
- Clay materials, either in excess of requirements or with unsuitable chemical characteristics.

These materials would be removed to existing spoil dumps on ML8002 and ML80127 and stored for later use or rehabilitated. CA anticipates reclaiming much of this material for blending purposes.

No additional staff would be employed as part of the construction and operation of the extended mine footprint.

The closest dwelling is located 1.4km north of the northern most point of the project area boundary.

The EIS stated that the resource within the MLA adjoins the current East End Mine; therefore, its exploitation will involve a logical extension of the existing mining operations to the southeast across the common lease boundary and the use of the existing mine infrastructure to transport the mined limestone and clay to the cement manufacturing facility. This is further supported in the EM Plan for the current pit where it stated that "At the current rate of mining, it is estimated the mining of the existing East End leases will extend to 2020". Although the application is for the extension to the pit on to the MLA, it is intrinsically linked to the current pit area and that the activities and associated impacts cannot be meaningfully separated from an environmental assessment/management perspective. This has been considered in the below assessment and when recommending conditions that are based on contemporary standards/legislative requirements.

Application and EIS

The application to amend the EA was made 1 December 2008 by CA. The department determined that the application was for a major amendment and an Environmental Impact Statement (EIS) was required. Potential impacts from the proposed amendments were assessed by the department through the EIS process. The department concluded this assessment process on 28 October 2014 when CA were provided an EIS Assessment Report (EIS AR). The EIS AR considered the Terms of Reference (TOR), the submitted EIS, all submissions on the EIS, the supplementary EIS, and the standard criteria and concluded that the submitted EIS and supplementary EIS (herein referred to as the EIS) did not identify any detrimental impacts of sufficient magnitude to prevent the project from proceeding.

The EIS AR advised that the recommendations of the EIS AR should be fully implemented. The EIS AR also recommended interim conditions, to be

finalised upon submission of a satisfactory EM Plan, for inclusion in the draft EA. These are listed in Appendix 4 of the EIS AR (eDOCS#5880698).

Legislation

Environmental Protection Act 1994 and Environmental Protection Regulations 2008

In accordance with the transitional provisions in section 683 of the EP Act 1994, the application is being assessed under the version of the EP Act 1994 and the Environmental Protection Regulations 2008 (EP Regs) that were in effect immediately prior to introduction of the Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012 (Greentape Reduction). The relevant versions are the EP Act 1994 current as at 14 March 2013 and the EP Regs 2008 reprinted as in force on 9 November 2012. This also extends to other subordinate legislation such as the Environmental Protection Policies (EPP) for Air, Noise and Water. The versions of the relevant legislation and subordinate legislation is as follows:

- EP Act, the version dated effective 14 March 2013;
- EP Regs, the version dated 21 December (reprint as in force on 9 November 2012);
- EPP Air, the version current as at 9 November 2012.
- EPP Water, the version current as at 29 June 2012.
- EPP Noise, the version current as at 1 January 2012.

The process to assess a non-code compliant level 1 EA (mining lease) application, in accordance with Greentape Reduction legislation, is summarised in Appendix A.

The department advised CA that they may withdraw the application and resubmit it under the current legislation if they chose. CA advised that they wished to proceed with the application as submitted 1 December 2008.

Water Act 2000 – Underground water

Underground water areas are identified in the *Water Regulation 2002* or a Water Resource Plan to protect groundwater. Within these areas, authorisation is required to access and/or construct works to take groundwater.

EEM is not located in an underground water area (refer to s1046 of the *Water Act 2000* (the *Water Act*) and *Schedule 11* of the *Water Regulation 2002*), hence a Water Licence to take underground water was not required under s20 of the superseded *Water Act 2000* which authorises the take of water without a water entitlement, as it is necessary in carrying out a prescribed activity under the EP Regs. This is referred to in the current *Water Act* (current as at 3 July 2017) as 'associated water'.

The *Water Reform and Other Legislation Amendment Act 2014* (WROLA Act), commenced on 6 December 2016, and includes a number of changes to the *Water Act* that relate to water allocation and management. Chapter 3 of the *Water Act* is applicable to resource activities.

Mining activities that take associated water will be subject to the obligations under Chapter 3 of the *Water Act*. In brief, this means that companies need to enter into 'make good' agreements with landholders whose bores are affected by the take of associated water. The take of '**associated water**' will not require a licence or permit (for resource activities).

All new mining leases and mining development leases are afforded a right to take associated water, regardless of whether they are in a groundwater regulated area or not. A general make good obligation also applies for all areas until an underground water impact report (UWIR) applies to the tenure.

Existing mines that are lawfully taking water, or start taking water after commencement of the WROLA Act, (e.g. for dewatering purposes) will not need to complete a baseline assessment plan (BAP) or an UWIR. However, where a current licence exists for operations they will need to continue to comply with the conditions on the licence.

EEM's current take of groundwater and management of impacts to other water users, are currently regulated under "special mining lease conditions" for the existing ML's and are not subject to the Chapter 3 requirements of the *Water Act*.

As of 6 December 2016, when the WROLA commenced, EEM had a statutory right to take associated water on the currently approved tenures.

EEM will be exempt from the requirement to prepare an UWIR and BAP under sections 369A and 394A of the *Water Act* for the currently approved tenures only.

If the EA amendment and mining lease application are approved, EEM will receive a statutory right to take underground water for MLA80156, subject to compliance with obligations under Chapter 3 of the Water Act – new section 334ZP of the Mineral Resources Act 1989 (inserted by WROLA). This means EEM will be required to submit an UWIR and BAP prior to exercising their underground water rights on MLA80156.

The UWIR and BAP technically will only need to capture the dewatering on MLA80156, however, it will be difficult to separate take of water activities on MLA80156 from existing operations. EEM does have the option to voluntarily opt into the Chapter 3 framework for the existing operations. The Department as the Chief Executive also has the option to "call in" EEM to manage the underground water in accordance with Chapter 3 of the Water Act.

Chapter 3 includes make good obligations. The Department of Natural Resources, Mines and Energy (DNRME) have indicated it is their preference that the take of underground water is regulated through the *Water Act* and as such they will not be issuing special mining lease conditions for the MLA80156 and will engage with EEM in the future to address the transition.

Environmental management plan / Refusal Period

An Environmental Management Plan (EM Plan) was included with the EIS that was released for public notification. A number of submissions on the EIS raised issues that required amendments to the draft EM Plan. On 27 October 2014 an EIS AR was given to the applicant and the EIS AR addressed the adequacy of the draft EM Plan and determined that it did not meet the statutory content requirements and recommendations for changes were provided to CA in Appendix 3 of the EIS AR.

The purpose of the submitted EM Plan, in accordance with s202 of the EP Act, is to propose environmental protection commitments to help the administering authority prepare the draft EA for the application. Therefore, an assessment of the EM Plan content is necessary to be included in this assessment to inform the Department's decision to refuse or to allow to proceed and the appropriate information has been included in the relevant sections below. Additional information was required to be included in the EM Plan in order for the Department to make a decision to refuse or to allow to proceed and prepare the draft EA. As a result, the refusal period was extended on several occasions in accordance with s555 of the EP Act. A full history of the application process is detailed in Appendix B.

On 18 January 2018, the Department accepted that the EMP Plan met the content requirements of s203 of the EP Act, triggering the start of the s207 decision to refuse or to allow to proceed (eDOCS#6131365).

Under section 40 of the *Environmental Protection Regulations 2008* (EP Regs) (effective 9 November 2012, the relevant subordinate legislation at the time of the EA application), the relevant refusal period for section 207(1) of the EP Act, is 10 business days (BD) after the last of the following events to

happen—		
(a) if an EIS requirement has been made for the application—the completion of the EIS process;	NA	An EIS requirement was made however this is not the last of the events to happen and therefore does not apply as the relevant milestone
(b) the end of the assessment period mentioned in section 205(3) of the Act;	Applies	As indicated in Appendix B, an amended EM Plan was lodged with the department on 29 November 2017 thus restarting the EM Plan assessment period. The assessment period ends 30 business days after the 29 November 2017.
(c) if, before the end of the assessment period, a relevant mining tenement has, under the State Development Act, part 4, been declared to be, or include, a significant project—the preparation of the Coordinator-General's report for the project;	NA	The mining tenement was not declared a significant project under the State Development Act.
(d) if an EIS assessment report or EM plan assessment report states that a submitted EM plan does not comply with section 203 of the Act—an EM plan assessment report being given to the applicant about the submitted EM plan, after it has been amended, stating that it complies with section 203 of the Act.	NA	As indicated above, the EM plan assessment report is included in this assessment report and is required in order for the Department to make a decision to refuse or to allow to proceed and prepare the draft environmental authority and therefore a separate EM Plan assessment report has not been prepared.

5. Assessment Level Decision (ALD) (amendment applications only - not condition conversion)

What is the assessment level decision?

- ☐ Minor (threshold)
☒ Major - Notice of ALD must be given to the applicant within 10 BD of making an ALD*

* Previously referred to in the EP Act prior to the greentape amendment bill as 'significant increase in environmental harm likely'.

6. Documents submitted to support the application

☐ Rehabilitation Plan/Report (if removing an ERA)	☐ Post Closure Management Plan (if removing an ERA)
☐ Compliance statement (if removing an ERA)	☐ Declaration – Compliance with eligibility criteria (required for variation)

☐ Declaration stating activity was not carried out (if removing an ERA)	☐ Registered suitable operator number or application (required for variation)
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7. Assessment

Are all the ERAs for the environmental authority eligible ERAs? (Variation Application only)

- ☐ Yes
☐ No – this application **must** be refused under s. 173 of the EP Act
☒ Not applicable

Describe the proposed variation or amendment

Condition No. (if applicable)	Details of proposed change to condition or EA	Applicant's justification for proposed change to condition or EA
NA	Add ML80156	Expansion of current mining area to extend the life of mine.
Various	See Attachment 1 for summary of changes to conditions and new conditions.	See Attachment 1

EA Assessment—Environmental management decision

Environmental values and associated environmental risks

In the following table list all **environmental risks, proposed discharges or emissions** associated with the proposed changes to the activity and highlight the level of risk (cumulative / widespread / irreversible). The level of risk should be determined by the applicant. The level of detail and analysis of risk provided in this assessment report should be commensurate to the nature and scale of the changes to the activity that would be authorised by the proposed variation or amendment(s).

Environmental values	Environmental risks, proposed discharges or emissions associated with the activity
<u>AIR</u> <i>Consider (for example):</i>	The application does not propose point source discharges of contaminants. The proposed amendment for the development and operation of the proposed mining lease has the potential to generate dust and particulates from the following associated activities: <ul style="list-style-type: none"> • Drilling and blasting (blasting activities are expected to be closer to the surface initially than current operations with the development of the mine commencing at ground level). • Crushing and blending of ore (currently occurring on existing ML and expected to continue on this lease);

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<p><i>Any point source emissions from the activity?</i></p> <p><i>Frequency of discharge, start-up/shut down, contaminants released etc.</i></p> <p><i>Any risk of fugitive emissions?</i></p>	<ul style="list-style-type: none"> • Earthworks associated with construction activities; • Earthworks associated with the stripping and stockpiling of topsoil and overburden; • Loading, hauling and stockpiling of ore material to trucks and trains; • Movement of vehicles on haul roads and the transportation of raw materials. <p>The applicant has stipulated that the dust generated will include particles less than 10 µm in size (PM₁₀) with a minor amount of particulates in the less than 2.5 µm range (PM_{2.5}) which is normally associated with combustion sources. The proposed amendment does not include combustion sources outside of vehicle and machinery engines. Emissions of PM_{2.5} from these sources are expected to be minimal and adequately managed by the relevant standards for combustion engines.</p> <p>The nearest sensitive receptor is a residence located approximately 1.4km to the north of the proposed project area within the ML boundary the subject of the application. Sensitive receptors are described in <i>Table 4 – Description of Surrounding Sensitive Receivers</i> of the EM Plan and displayed in <i>Figure 3 – Surrounding Sensitive Receivers</i> of the EM Plan.</p> <p>The Department's EIS assessment report concluded that:</p> <ul style="list-style-type: none"> • The EIS adequately described the existing air environment that may be affected by the project. • The EIS stated that the project is unlikely to result in any significant increase in air emissions, as the project would be a continuation of the existing mining operations. The current mitigation measures for dust and particulate management would also continue. • The EIS identified that the EPP Air objectives for concentrations of PM_{2.5} and PM₁₀ and the Department's dust deposition guideline limit are not expected to be exceeded at surrounding dwellings. • Activities in the extended mining pit would be situated further away from the nearest rural residential dwelling. • The proponent stated that if a substantial dust complaint is received as a result of on-site activities, mitigation action would be undertaken. <p>Dust deposition has the potential to impact the environmental values of water also through direct deposition in waterways and deposited material washing into waterways. However, the management of dust deposition through the protection of the environmental values for air are expected to adequately manage these risks.</p>
<p><u>WATER</u></p> <p><i>Consider (for example):</i></p> <p><i>Location of discharge points</i></p> <p><i>Concentrations of contaminants</i></p> <p><i>Risks of unplanned / uncontrolled release?</i></p>	<p>The proposed amendment has the potential to impact on the environmental values of waters (groundwater considered in the Groundwater sections) through:</p> <ul style="list-style-type: none"> • Decline in water quality in receiving waters due to mine water discharge and stormwater run-off that has come in contact with cleared areas, and topsoil and waste rock stockpiles (although waste rock/overburden will be transported to the existing waste dumps on the current ML's); • Changes in stream and catchment hydrography due to construction of the flood mitigation bund and stormwater diversion bunds as well as the extraction of groundwater from the dewatering of the pit;

	<ul style="list-style-type: none"> Increased scouring and erosion of receiving waterways due to mine water discharges; Potential contamination of surface water - from accidental releases of hydrocarbons and chemicals as well as blasting material residues; Discharges of water from the residual mining void post closure.
<u>GROUNDWATER</u>	<p>The EIS and amended EM Plan focussed mainly on the potential impacts of groundwater drawdown and the associated impacts on surrounding groundwater extraction. However, it is considered that the Project has the potential to impact on local groundwater systems through:</p> <ul style="list-style-type: none"> Groundwater level declines (drawdowns) related to mine dewatering; Changes in groundwater quality related to local drawdown effects; Reduction in yields and water quality of local groundwater extraction bores Reduction of baseflow and dessication of waterholes in Machine Creek, Larcom Creek and Scrub Creek.
<u>WETLANDS</u> <i>(a) the health and biodiversity of the wetland's ecosystems;</i> <i>(b) the wetland's natural state and biological integrity;</i> <i>(c) the presence of distinct or unique features, plants or animals and their habitats, including threatened wildlife, near threatened wildlife and rare wildlife under the Nature Conservation Act 1992;</i> <i>(d) the wetland's natural hydrological cycle;</i> <i>(e) the natural interaction of the wetland with other ecosystems, including other wetlands.</i>	<p>No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area.</p>
<u>NOISE</u> <i>Consider (for example):</i> <i>Noise emissions from equipment or activities such as blasting</i>	<p>The project is in a rural area predominantly used for beef grazing. The nearest sensitive receptor is a residence located approx. 1.4km to the north of the project area. The amendment does not propose to alter the nature, method or scale of the mining activities but does propose a change to the location of these activities. The amendments would also result in construction activities relating to the development of the expanded pit and water management infrastructure including the flood mitigation bund. There is potential for an increase in noise and vibration emissions. Activities with potential to generate significant noise and/or vibration emissions include:</p> <ul style="list-style-type: none"> Earthworks associated with topsoil and overburden removal Earthworks associated with construction of the flood mitigation bund and clean water diversion drain Drilling and blasting Operation of the crusher (although this is not expected to change from the current operations). Extraction, loading and hauling of ore material <p>The Supplementary EIS provides a description of the potential impacts and describes noise modelling that was undertaken. The EIS predicted that impacts from noise emissions and noise from the project area would comply</p>

	<p>with all noise criteria and that there is no anticipated noise impacts on surrounding terrestrial, marine animals or avifauna, particularly migratory species.</p> <p>The EIS predicted that noise from the project area would comply with all noise criteria. The EIS-AR noted that EIS initial screening assessment indicated that low frequency noise would not cause annoyance at sensitive receptors. The EIS-AR states that, provided current management practices are maintained, no increase in the overall noise emissions compared with existing mining operations at surrounding noise sensitive places is expected for the proposed expansion.</p> <p>The EIS stated that the project is not expected to generate any discernible road traffic increase in the local area or further afield, either during the construction or operation phases. The EIS-AR found that adequate transport assessment for the project was provided in the EIS. Therefore, the potential for traffic-generated noise emissions is not expected to increase with the proposed expansion of the project.</p>
<p><u>WASTE</u></p> <p><i>Consider (for example):</i></p> <p><i>If release of wastewater or waste to land you must consider the following:</i></p> <p><i>Topography and flood potential</i></p> <p><i>Climate</i></p> <p><i>Land availability and wet weather storage</i></p> <p><i>Any irrigation of wastewater proposed?</i></p>	<p>The EIS identified three main types of waste that would be produced by the project:</p> <ul style="list-style-type: none"> liquid waste – liquid wastes such as pit dewatering, stormwater run-off, and seepage from groundwater are considered under the WATER and GROUNDWATER sections. There is not expected to be an increase in sewage waste or waste maintenance fluids such as oil generated as a result of the proposed amendment. solid waste – waste rock, general waste, waste tyres, organics waste from land clearing, and oily waste. These wastes will be considered in the WASTE section. atmospheric waste – considered under the AIR section. <p>There is not expected to be a significant increase in wastes other than overburden/waste rock (and water from pit dewatering although this is addressed in the WATER section). No new waste rock/overburden dumps are expected to be required as a result of the proposed amendment.</p>
<p><u>LAND</u></p> <p><i>Consider (for example):</i></p> <p><i>Disturbance of ASS or acid producing rock – acid discharge?</i></p> <p><i>Any disturbance from excavation or clearing of vegetation – associated impacts on fauna?</i></p> <p><i>Any potential for land contamination?</i></p>	<p>The proposed amendment is expected to disturb a total area of 59.9 hectares (of a total of 86.4 hectares) within the proposed mining lease. The disturbance area will require clearing of vegetation however the EIS indicated that this is mostly pasture grass overlying the proposed mining area. The following activities are expected to impact the environmental values of land:</p> <ul style="list-style-type: none"> Clearing of vegetation. Stripping and stockpiling of topsoil. Removal of land suitable for cattle grazing. Final land use is proposed to be a void, a road for farm access and native habitat on the walls of the flood mitigation bund. Erosion and sedimentation risks due to ground disturbance and alteration of hydrology (flood mitigation bund and clean water diversion drains). Release of contaminated water to land. Inadequate management of fuels and oils resulting in land contamination.

These must be considered as part of section 51 of the Environmental Protection Regulation 2008 (EP Reg). That is, for an environmental management decision relating to an activity, the administering authority must consider the matters in the table below.

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It is important to note that this information must be provided by the applicant as part of the EA application. Officers can also use sources such as Ecomaps, Queensland Globe, the business and industry portal and the environmental protection policies.

Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
the management hierarchy;	AIR EPP (current as at 9 November 2012) a) firstly—avoid; b) secondly—recycle; c) thirdly—minimise; d) fourthly—manage.	<p>The management hierarchy of the EPP Air has been proposed to be applied by the applicant in the following ways as relevant to the proposed amendment only (n.b. the other sources of air emissions and control measures, for example stockpiling and rail load out, will not change as a result of the proposed amendment and therefore are not included in this assessment report):</p> <p>Avoid – The proposed amendment will only disturb areas required for mining and infrastructure such as haul roads. This is expected to avoid generating additional dust emissions from cleared land.</p> <p>Recycle – There is not expected to be any potential for recycling as there are no point source emissions proposed as part of the amendment.</p> <p>Minimise – The following measures have been nominated by the applicant in the EIS and EM Plan:</p> <ul style="list-style-type: none"> • Dust collectors are fitted to all blast hole drilling rigs. • Vehicle travel speeds will be limited to less than 40 km/hr on unpaved roads within the Project Area; • Vegetation clearing, topdressing, blasting or other high dust generating activity will be avoided on days with wind speed exceeding 5 m/s blowing towards sensitive places; <p>Manage – The EIS and EM Plan state the following measures for the management of dust emissions:</p> <ul style="list-style-type: none"> • A water truck will be deployed to control dust in operational areas and haul roads; • Water sprays will be employed on site where practicable; • Wind breaks will be installed around exposed storage and stockpile areas; • Complaints will be handled in accordance with the complaints handling protocol; • The lighting of fires will be not permitted on site except on rare occasions to manage the land when it will be done under an approval from the Area Fire Warden; • Modern plant and equipment will be deployed and kept well maintained to ensure greenhouse gas production is minimised; • Bag filters will be fitted on fixed plant and equipment where practicable; • All substantiated dust complaints will be investigated. • Corrective action resulting from complaints/investigations will be implemented as required; • Compliance with EA conditions. The assessing officer notes that the current EA contains limits and conditions for the management of dust emissions and complaints monitoring. The EIS AR also proposed air conditions for the EA. • Progressive rehabilitation to minimise exposed surfaces.

Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
	<p>WATER EPP (current as at 29 June 2012) step 1—water conservation measures to reduce use and production of waste water or contaminants; step 2—waste prevention options and measures; step 3— treatment and recycling options; step 4— (i) appropriate treatment and release to a waste facility or sewer; (ii) appropriate treatment and release to land; (iii) appropriate treatment and release to surface waters or ground waters.</p>	<p>The EIS and EM Plan include details on water conservation measures to reduce use and waste water production:</p> <ul style="list-style-type: none"> • Implementation of a Water Management Plan including the use of a mine water balance in mine water management; • constructing diversion drains to divert clean storm water away from the extended pit is expected to reduce waste water production through not permitting clean storm water to come in contact with contaminants. <p>The following waste prevention measures have been proposed in the EIS and EM Plan:</p> <ul style="list-style-type: none"> • segregation of stormwater by quality or source • provision for staged development of the mine. • stock exclusion from the creek by fencing along both sides of the creek bank and the provision of off stream watering • vegetating the batters of all diversions bunds and drains to prevent erosion and sediment loss <p>The following treatment and recycling measures have been proposed in the EIS and EM Plan:</p> <ul style="list-style-type: none"> • Controlled discharge of water with maximum flow rates dependent on natural creek flows and mine water quality as per conditions of the mine's EA; and • Modification of existing mine sumps to create sufficient capability to detain runoff from larger rain events • appropriate soil and water management during mine development and operation in order to mitigate the increased risk of sedimentation in Larcom Creek, such as the design of mine bunds and surface flow systems <p>Other monitoring measures have been proposed in the EIS and EM Plan to monitor the effectiveness of the above measures:</p> <ul style="list-style-type: none"> • Ongoing monitoring of the effects of mine water discharge on downstream water quality; • Erosion and sediment control inspections as detailed in an Erosion and Sediment Control Plan, particularly after periods of heavy rain; • appropriate risk assessment in determining the size and design of storage dams and sediment basins. • operational phase controls to minimise sediment and nutrient export • optimisation of the volume of stormwater discharged from the mine having regard to the mass and concentration of contaminants • operational phase runoff management and diversion controls that could be converted to water harvesting structures with minimal redesign • stabilisation of the overland flow-path confluence to the creek by implementation of reinforced swales • bi-annual water quality and stream stability monitoring at two or three control points, comparison with

Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		baseline data and water quality guidelines, and remedial action to mitigate the risk of creek instability.
	WETLANDS	No EPP existed for wetlands although EV'S defined in s81A of EP Regs are addressed below.
	NOISE EPP (current as at 1 January 2012) firstly—avoid; secondly—minimise: firstly—orientate an activity to minimise noise; secondly—use best available technology; thirdly—manage.	Noise generated from existing support infrastructure on the current ML's, including rail load out and crushers etc. have not been considered as relating to the scope of the proposed amendment as the proposed amendments do not propose changes to these operations. The following mitigation measures have been nominated in the EIS and EM Plan in relation to meeting the Noise EPP objectives: Avoid <ul style="list-style-type: none"> Although not by design, the proposed project area is located at a further distance from the nearest sensitive receptor than the current mining activities, thus maintaining the existing separation distances between sensitive receptors and the proposed activity. locating haul roads a sufficient distance from sensitive receptors and to maximise screening (e.g. by hills, ridges or within the excavation pit) Minimise <ul style="list-style-type: none"> Separation distances and/or utilisation of natural topography and man-made features where practicable; Noise attenuation design considered in the purchase of new equipment; Enclosing significant noise sources (e.g. vibratory screens, generators, crusher ,etc.), and ensuring that access doors are kept closed at all times. Manage <ul style="list-style-type: none"> Hours of operation will be consistent with current operations; Equipment maintenance; Blasting restricted to between 8:00am and 5:00pm, Monday to Saturday; limiting extraction operations to day and evening periods where practicable or alternatively conducting activities in more distant areas at night, or behind earthen bunds or barriers; Good blast engineering practices implemented and environmental performance criteria and conformance with regulatory requirements specified as a requirement of the blasting contractors contract; Noise and vibration complaints will be investigated; When required, monitoring will be undertaken in accordance with EPP (Noise);

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		<ul style="list-style-type: none"> Corrective actions resulting from complaints investigations will be implemented; Earthen bund (flood mitigation bund) may act as a noise attenuation barrier. <p>In addition to the provided mitigation measures, the EIS AR has recommended EA conditions in relation to noise and blasting. The assessing officer has also identified that the current EA contains noise and blasting conditions. The mitigation measures above and conditions proposed below are expected to adequately manage the risks associated with noise from the proposed activity.</p>
	GROUNDWATER, WASTE and LAND	No EPP existed for groundwater, waste or land.
(ii) environmental values; (iii) quality objectives; (iv) the management intent;	AIR	<p>The EIS and EM Plan have identified that the environmental values to be enhanced or protected are the qualities of the air environment that are conducive to: protecting the health and biodiversity of ecosystems; and human health and wellbeing. The EPP Air quality objectives, for the expected emissions from the proposed amendment, are PM₁₀ and PM_{2.5} and are for the protection of the health and wellbeing environmental value of air. There are no corresponding air quality indicators for the expected emissions for the protection of health and biodiversity of ecosystems.</p> <p>The proposed mitigation measures from the EIS and EM Plan as well as the current and proposed EA conditions are expected to achieve the management intent of the EPP Air.</p>
	<u>WATER</u>	<p>The EIS nominated the EV's for water as aquatic ecosystem protection (slightly to moderately disturbed aquatic habitat) and stock water. However, the EPP Water that was current prior to the Greentape Reduction legislation coming in to effect identifies the EV's of waters to be enhanced or protected as all of the following (as the waters of the Calliope River Basin were not listed in Schedule 1 of the EPP Water):</p> <ul style="list-style-type: none"> moderately disturbed waters—the biological integrity of an aquatic ecosystem that is adversely affected by human activity to a relatively small but measurable degree (moderately disturbed considered appropriate due to grazing influence and supported by the current scheduled EV's and Water Quality Objectives (WQO) for the Calliope River Basin); the suitability of the water for producing aquatic foods for human consumption; the suitability of the water for aquacultural use; the suitability of the water for agricultural purposes; primary recreational use; secondary recreational use; visual recreational use; the suitability of the water for supply as drinking water; the suitability of the water for industrial use;

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		<ul style="list-style-type: none"> cultural and spiritual values of the water. <p>The Environmental Values and water quality objectives of the Calliope River Basin, for which Larcom Creek is within, are now scheduled under the current <i>Environmental Protection (Water) Policy 2009</i>, in the document <i>Curtis Island, Calliope River and Boyne River Basins Environmental Values and Water Quality Objectives (Calliope River WQO)</i> available at http://www.ehp.qld.gov.au/water/policy/capricorn-curtis-coast.html. The EV's nominated in this document are the same as those applied above for fresh waters in the Calliope River Basin. As the environmental values are the same in both scenarios, the application of the <i>Calliope River WQO</i> are considered appropriate.</p> <p>Larcom Creek is within the lowland freshwaters mapped area in map <i>WQ1311 – Curtis Island and Calliope River Basins</i>. The <i>Calliope River WQO</i> nominate the management intent for lowland freshwaters as Moderately Disturbed (MD). The EPP Water identifies that the management intent for moderately disturbed waters for a decision to release waste water or a contaminant must ensure the following:</p> <p>(i) if the measures for indicators of the environmental values achieve the water quality objectives for the water—the measures for the indicators are maintained at levels that achieve the water quality objectives for the water; or</p> <p>(ii) if the measures for indicators of the environmental values do not achieve the water quality objectives for the water—the measures for indicators of the environmental values are improved to achieve the water quality objectives for the water. The <i>Calliope River WQO</i> include water quality objectives for groundwaters in the project area and these are further discussed and assessed in the GROUNDWATER sections below.</p> <p>The current EA contains release limits and receiving water triggers for the quality characteristics: EC, pH, and Turbidity. These are considered to continue to be the relevant quality characteristics for monitoring for impacts on the environment from the current and proposed mining activities based on the risks identified in the relevant WATER section above (i.e. sediment run-off, release of groundwater intercepted through pit development via dewatering).</p> <p>The EM Plan nominated water quality limits for releases to surface waters from mine dewatering. These limits were the same as those in the current EA. The limits varied dependant on volumes being released and the volume of flow in the receiving waters. It could not be ascertained from the information provided that the release qualities would ensure the WQO's for EC in Larcom Creek would continue to be met as a result of the releases. Data provided by CA in the EM Plan and EIS indicated that the locally specific value for EC at Location 5 (indicated as an upstream reference site) was 2,063 microsiemens per centimetre ($\mu\text{S}/\text{cm}$) (75th percentile). However, it could not be ascertained if this value was determined in accordance with the ANZECC methodology or if Location 5 was representative of an appropriate reference site.</p> <p>Surface water and release water quality and quantity data was subsequently provided by CA for interpretation.</p>

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?																								
		<p>The data indicated that the upstream monitoring location may actually be influenced by releases of water from the mine dewatering activities and therefore there is some uncertainty of the validity of this location as an upstream monitoring point. In the absence of a suitable upstream monitoring location, the data from this location were used to establish a receiving environment water quality limit. It is also recommended that an alternative upstream location be included in the conditions of the EA to replace the current upstream monitoring location and re-establish the receiving environment water quality limits. As the replacement location is yet to be determined, a grace period is recommended to allow sufficient time for the proponent to determine an appropriate location. The published WQO 75th percentile objective for the receiving environment is also recommended to be included as a limit to ensure the published water quality objective and the objectives of the EPP Water are met. As the WQO is a percentile, it is recommended that only multiple consecutive exceedances would result in a non-compliance as it is foreseeable that 25% of a data set would exceed the WQO, however, multiple consecutive exceedances are improbable and therefore indicative of a potential impact or change in the water quality.</p> <p>The relevant published WQO's for the nominated quality characteristics for the various EV's are as follows:</p> <table><tr><th>Quality Characteristic</th><th>Aquatic Ecosystem</th><th>Drinking Water - In the vicinity of water off-takes.</th><th>Aquaculture</th><th>Stock (poultry as the most sensitive)</th></tr><tr><td>EC (µS/cm)</td><td>1,416 (Calliope WQO) 1,440/1,500 (QWQG 2007) 1,500 (QWQG 2013)</td><td><350 uS/cm TDS 600mg/L (895 uS/cm EC) – Taste considerations, although ADWG indicate that regional/rural supplies may have TDS of up to 1,000mg/L. Greater than 1,200mg/L (approx. 1,875uS/cm) becomes unpalatable.</td><td>NA</td><td>2,000 TDS 2,985 EC (2,000/0.67 ANZECC)</td></tr><tr><td>pH (pH units)</td><td>6.5 – 8.0</td><td>5.5 – 8.5</td><td>6.8 – 9.5</td><td>NA</td></tr><tr><td>Turbidity (Nephelometric Turbidity Units)</td><td><4.2</td><td><5</td><td><80</td><td>NA</td></tr></table>					Quality Characteristic	Aquatic Ecosystem	Drinking Water - In the vicinity of water off-takes.	Aquaculture	Stock (poultry as the most sensitive)	EC (µS/cm)	1,416 (Calliope WQO) 1,440/1,500 (QWQG 2007) 1,500 (QWQG 2013)	<350 uS/cm TDS 600mg/L (895 uS/cm EC) – Taste considerations, although ADWG indicate that regional/rural supplies may have TDS of up to 1,000mg/L. Greater than 1,200mg/L (approx. 1,875uS/cm) becomes unpalatable.	NA	2,000 TDS 2,985 EC (2,000/0.67 ANZECC)	pH (pH units)	6.5 – 8.0	5.5 – 8.5	6.8 – 9.5	NA	Turbidity (Nephelometric Turbidity Units)	<4.2	<5	<80	NA
Quality Characteristic	Aquatic Ecosystem	Drinking Water - In the vicinity of water off-takes.	Aquaculture	Stock (poultry as the most sensitive)																						
EC (µS/cm)	1,416 (Calliope WQO) 1,440/1,500 (QWQG 2007) 1,500 (QWQG 2013)	<350 uS/cm TDS 600mg/L (895 uS/cm EC) – Taste considerations, although ADWG indicate that regional/rural supplies may have TDS of up to 1,000mg/L. Greater than 1,200mg/L (approx. 1,875uS/cm) becomes unpalatable.	NA	2,000 TDS 2,985 EC (2,000/0.67 ANZECC)																						
pH (pH units)	6.5 – 8.0	5.5 – 8.5	6.8 – 9.5	NA																						
Turbidity (Nephelometric Turbidity Units)	<4.2	<5	<80	NA																						

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		<p>The WQO for aquatic ecosystems is applied as the more stringent objective for most quality characteristics with the exception of pH for aquaculture (although there are no aquaculture operations identified downstream of the discharge on Larcom Creek). The EIS indicated the pH average from 1996 to 2012 for the mine sump/pit was 7.5 and therefore the aquaculture objectives are expected to be met for pH if Larcom Creek is used for aquaculture in future. By meeting the aquatic ecosystems objective, the other EV objectives are expected to be met also (as supported in the Calliope River WQO).</p> <p>In the absence of locally derived water quality objectives that are demonstrated to have been developed in accordance with the ANZECC methodology, the Calliope WQO are the relevant objectives to apply to surface waters in accordance with the EPP Water hierarchy (i.e. a site specific document for the waters of Calliope catchment that includes Larcom Creek). To enable natural variation in the receiving environment to be taken in to consideration when determining if releases are continuing to meet WQO's, the 95th percentile of the water quality data from the upstream location (Location 5) was used to determine an upper water quality limit for the downstream location that the proponent would be required to achieve. For the same reasons as above for the 75th percentile, it is recommended that multiple consecutive exceedances would result in a non-compliance of this upper limit. Understanding that the Location 5 may be influenced by the releases of water from the site, the upper limit may be revised after the replacement upstream monitoring location has been determined and sampling and monitoring has been carried out to determine any variations to the current location. Refer to the data interpretation saved on the Department's document management system for further details (eDOCS#6126156).</p> <p>The proposed conditions within the EA are recommended to ensure the above objectives are met in the receiving environment.</p>
	<u>WETLANDS</u>	No EPP existed for wetlands although EV's defined in s81A of EP Regs are addressed below.
	<u>NOISE</u>	<p>The EIS and EM Plan, identified the relevant EV's to be enhanced or protected under the EPP (Noise) are:</p> <ul style="list-style-type: none"> • The qualities of the acoustic environment that are conducive to human health and wellbeing. Including by ensuring a suitable acoustic environment for individuals to do any of the following: <ul style="list-style-type: none"> ◦ sleep; study/learn; be involved in recreation, including relaxation and conversation. • The qualities of the acoustic environment that are conducive to protecting the amenity of the community. <p>The proposed mitigation measures in conjunction with the proposed EA conditions below are expected to ensure the acoustic quality objectives and the management intent of the EPP Noise are met.</p>
	<u>WASTE, GROUNDWATER, and LAND</u>	No EPP existed for groundwater, waste or land.

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
(aa) environmental values declared under this regulation;	<u>AIR</u>	The EV's declared under the EP Regs are addressed above in the EPP Air section.
	<u>WATER</u>	The EV's declared under the EP Regs are addressed above in the EPP Water section.
	<u>GROUNDWATER</u>	No EV's declared for groundwater under the EP Regs however the potential impacts to groundwater from the proposed activity are addressed in the other GROUNDWATER sections.
	<u>WETLANDS</u> (a) the health and biodiversity of the wetland's ecosystems; (b) the wetland's natural state and biological integrity; (c) the presence of distinct or unique features, plants or animals and their habitats, including threatened wildlife, near threatened wildlife and rare wildlife under the <i>Nature Conservation Act 1992</i> ; (d) the wetland's natural hydrological cycle; (e) the natural interaction of the wetland with other ecosystems, including other wetlands.	No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area. However, Shultz Lagoon is indicated on the maps associated with the Calliope WQO's (WQ1311 – Curtis Island and Calliope River Basins, 2014). The applicant asserts that Schultz Lagoon exists predominantly due to the mines dewatering and releases. The Department considers that Schultz Lagoon is a Queensland water with environmental values that must be protected or enhanced in accordance with the EPP Water, and that the WQO's imposed for Larcom Creek are considered likely to also protect environmental values associated with Schultz Lagoon.
	<u>NOISE</u>	The EV's declared under the EP Regs are addressed above in the EPP Noise section.
	<u>WASTE</u>	No waste EV's have been declared under the EP Regs. Other regulatory considerations in relation to waste are included in the relevant sections below.
	<u>LAND</u>	There are no Category A or B Environmentally sensitive areas within the proposed project area. There are no other EV's for land declared under the EP Regs.
(b) the characteristics of the contaminants or materials released from carrying out the activity;	<u>AIR</u>	The characteristics of the air contaminants expected to be emitted as a result of carrying out the proposed activity, as identified above, are expected to be adequately managed to meet the EPP Air objectives through the proposed mitigation measures from the EIS and EM Plan as well as the current EA conditions and those proposed in this assessment and the EIS AR.
	<u>WATER</u>	The characteristics of the contaminants within water that are likely to be released from the activity include

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		salinity, sediments, and pH altering characteristics. The sources of these contaminants are from run-off from disturbed areas (sediment) and interception of groundwater in developing the additional pit (salinity and pH). Release limits and receiving environment limits are recommended as a result of the characteristics of the contaminants expected to be released from the activity.
	<u>GROUNDWATER</u>	There are no contaminants or materials expected to be released to groundwater from the proposed activity. The characteristics of groundwater that have the potential to be impacted by the dewatering activities are salinity, and to a lesser extent, pH altering characteristics. The sources of these impacts are from the interception of groundwater, and subsequent dewatering, in developing the additional pit. These characteristics have been considered further in the other GROUNDWATER sections and the recommended groundwater quality conditions and groundwater level triggers have been determined taking in to consideration these characteristics.
	<u>WETLANDS</u>	No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area. Contaminants likely to be released to waters that may impact local wetlands will be considered in the Water sections.
	<u>NOISE</u>	The proposed mitigation measures in conjunction with the proposed EA conditions in the relevant section below are expected to ensure the acoustic quality objectives and the management intent of the EPP Noise continue to be met.
	<u>WASTE</u>	The waste rock/overburden from the proposed activity is expected to be physically and chemically benign. Sediment and suspended solids may be released as a result of waste rock/overburden storage/disposal. Conditions related to the release of water that has come in contact with waste rock material and monitoring requirements for surface waters from this possible emission are proposed in the relevant Conditions section below.
	<u>LAND</u>	Contaminants carried in stormwater run-off that has come in contact with land disturbed following the commencement of the proposed amendment will be considered with the Water sections. Air borne contaminants from the development of the proposed project area are addressed in the Air sections. No other contaminants are expected to be released from the disturbance of land from the proposed amendment.
(c) the nature and management of, including the use and availability of technology relating to, the processes being, or to be, used in carrying out the activity;	<u>AIR</u>	There is not expected to be any change to the nature and management of processes for the proposed activity including technology and therefore the proposed management practices and technology used in carrying out the proposed activity are expected to continue to meet the air quality objectives.
	<u>WATER</u>	The proposed amendment is an extension of the existing activities at the project site. Water quality monitoring requirements proposed in the EA take in to consideration the use and availability of technology. Treatment of

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		water prior to release is not considered to be required based on the information provided within the EIS, EM Plan and other application supporting material. The proposed EA conditions will set the environmental outcomes to be met from releases of water to the receiving environment. If treatment of water is required prior to release to meet the EA requirements in future, it will be the EA holder's responsibility to identify and source the appropriate technology. Water treatment systems for the removal of sediments, pH adjustment and removal of salts are expected to be readily available if required.
	<u>GROUNDWATER</u>	There is not expected to be a change in the nature and management of the processes being used in carrying out the proposed activity. The utilisation of the available technology for the development of a groundwater model by the proponent is expected to inform the management of the activity and the potential impacts on groundwater levels and water quality.
	<u>WETLANDS</u>	No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area.
	<u>NOISE</u>	There is not expected to be any change to the nature and management of processes for the proposed activity including technology for noise management and therefore the proposed mitigation measures in conjunction with the proposed EA conditions in the relevant section below are expected to ensure the acoustic quality objectives and the management intent of the EPP Noise continue to be met.
	<u>WASTE</u>	There is not expected to be a change to the nature and management of the processes for waste rock extraction and storage. Waste rock/overburden of appropriate properties to re-use for blending with the ore will be recovered and blended according to market/processing requirements.
	<u>LAND</u>	Proposed land disturbance will be carried out utilising existing machinery and equipment from the activities on the current project area. The EIS and EM Plan nominate appropriate erosion and sediment control strategies for managing risks of erosion and sediment release from the disturbed areas as well as the current EA conditions require a sediment and erosion control plan to be developed. Recommendations to expand this condition to include implementation of the plan are included in the relevant section below. The EIS also includes construction of diversion bunds and flood mitigation bunds to manage the contact of stormwater with the disturbed areas and pit.
(d) the impact of the release of contaminants or materials from carrying out the activity on the receiving environment, including the cumulative impact of the release with other known	<u>AIR</u>	Air quality monitoring conducted by the applicant and as discussed in the EIS, indicate that the air quality objectives of the receiving environment are well below the EPP Air quality objectives and are not expected to be exceeded as a result of the proposed amendment.
	<u>WATER</u>	The proposed amendment is not expected to alter the impacts on the receiving environment from releases to waters. The proposed EA conditions are expected to ensure releases from the activity do not adversely affect

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
releases of contaminants, materials or wastes;		the environmental values of the receiving environment as indicated in the above WATER sections. Cumulative impacts are addressed through the application of the receiving environment triggers for investigation and corrective actions.
	<u>GROUNDWATER</u>	No releases to groundwater are expected as a result of the amendment. The impacts from the release of dewatering water to surface waters are address in the WATER sections. Potential impacts to groundwater quality (through degradation of water quality) from the dewatering activities are considered in other GROUNDWATER sections and conditions are recommended.
	<u>WETLANDS</u>	No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area. Contaminants likely to be released to waters that may impact local wetlands will be considered in the Water sections.
	<u>NOISE</u>	As discussed in the EIS, the background noise and vibration levels measured during the EIS process were low, ranging range between 30.6dB(A) and 34.7dB(A). The EIS stated that overall, the existing noise levels at the two locations monitored were observed to be due to natural features, with residual noise from the current mining operations observed to be negligible. The proposed mitigation measures in conjunction with the EA conditions identified in the relevant section below are expected to ensure the acoustic quality objectives and the management intent of the EPP Noise continue to be met.
	<u>WASTE</u>	As above, the waste rock/overburden from the proposed activity is expected to be physically and chemically benign. Sediment and suspended solids may be released as a result of waste rock/overburden storage/disposal. Conditions related to the release of water that has come in contact with waste rock material and monitoring requirements for surface waters from this possible emission are proposed in the relevant section below.
	<u>LAND</u>	Contaminants carried in stormwater run-off that has come in contact with land disturbed following the commencement of the proposed amendment will be considered with the Water sections. Air borne contaminants from the development of the proposed project area are addressed in the Air sections. No other contaminants are expected to be released from the disturbance of land from the proposed amendment that could impact the receiving environment.
(e) the characteristics of the receiving environment and the potential impact on it from carrying out the activity;	<u>AIR</u>	The proposed amendment does not propose to alter the nature of dust generating activities and is located further from an area or place likely to be affected by releases of dust or particulate matter than the existing operations. Air quality monitoring conducted by the applicant and as discussed in the EIS, indicate that the air quality objectives of the receiving environment are not expected to be exceeded.
	<u>WATER</u>	The potential impacts on the receiving environment are not expected to change as a result of the proposed

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		<p>amendment. The <i>Calliope River WQO</i> nominate the management intent for Larcom Creek as Moderately Disturbed (MD) which means the water quality is to be maintained below the WQO or, if currently above the WQO, then improved to meet the WQO. As indicated above, it could not be ascertained that the release qualities under the current EA would ensure the WQO's for EC in Larcom Creek would continue to be met as a result of the releases. As a result, proposed EA conditions are expected to ensure releases from the activity do not adversely affect the characteristics of the receiving environment and are expected to ensure the water quality is maintained below the WQO or improved.</p> <p>A review by the Departments specialist technical team (previously DSITI) of the water quality data provided by the applicant, indicated that the water quality at Weir 7 (the downstream compliance monitoring location) may be influenced by sources external to the mine dewatering discharges. As a result, the condition is recommended to be worded in a way that ensures that releases from the mine do not result in a non-compliance with the limits set at this location so that the proponent is not held accountable for any other potential inputs to the receiving environment outside of the mines control. However, this will still remain the onus of the EA holder to demonstrate the mine releases did not cause an exceedance (if recorded).</p>
	<u>GROUNDWATER</u>	<p>The mitigation measures proposed in the EIS and EM Plan mainly focussed on the drawdown impacts to water levels and the groundwater resources on surrounding groundwater users.</p> <p>Although no water quality objectives were developed for groundwater at the time of the EA amendment application, the Calliope WQO's include WQO for groundwater in the project area. These WQO's have been considered in determining the characteristics of the receiving groundwater environment and the potential impacts from the proposed activity.</p> <p>The potential risk of altering groundwater quality due to groundwater level declines (drawdowns) related to mine dewatering from the proposed amendment (i.e. pit expansion) are expected to be addressed through the proposed conditions for restricting decline in groundwater quality within the zone of influence and the requirement to monitor groundwater quality for changes. The historical groundwater data was reviewed and individual bores were grouped together based on their water quality signature. The review determined the 80th and 95th percentiles of the grouped data for EC as the more variable parameter over the history of monitoring with pH being less variable and therefore considered less likely to be affected by mining activities. The department's specialist technical team (previously DSITI) assisted in reviewing this data (eDOCS#6168542). A decline in groundwater quality can be determined by referring to this review for any future groundwater data reviews that may be required either through a compliance response or following submission of a groundwater report (as required by the conditions of the EA). A deviation/increase of these percentiles will indicate that a degradation of water quality has occurred. Limits are proposed for the monitoring bores nominated by the applicant. The limits were derived from the 80th and 95th percentiles for the individual bores as the proposed limits by the applicant were not accepted by the department.</p> <p>Conditions are recommended that require the applicant to conduct regular monitoring of groundwater quality and levels. These conditions are expected to ensure the proposed activity is managed appropriately to meet the Calliope WQO's for groundwater.</p> <p>Water level triggers are also recommended to ensure any deviation from the predicted impacts to the</p>

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		<p>groundwater levels are investigated appropriately for impacts to groundwater dependant ecosystems (GDE's) including stygofauna</p> <p>The potential to alter the groundwater quantity in local groundwater systems through groundwater level declines (drawdowns) related to mine dewatering from the proposed amendment (i.e. pit expansion) are considered in this assessment as far as they have the potential to impact on GDE's that have been identified as occurring in the project area; and potential impacts on surface water flows. Potential impacts on surrounding groundwater extraction bores will be addressed and managed through the <i>WROLA Act</i> requirements (as defined in <i>Section 4 – Background</i> above). The subject of this amendment application is the expansion of the mining area and therefore this assessment focusses on the potential impacts on environmental values potentially dependant on groundwater levels from the expansion and not the existing operations. The applicant provided a groundwater flow model depicting the likely drawdown zone (or zone of influence) from the current mining activities and the proposed activity. The provided modelling indicated that there was very little extension of the drawdown zone from the proposed pit extension except for a few locations. Additional monitoring locations and proposed conditions are expected to manage these areas where the drawdown zone is predicted to extend. Groundwater level data was also provided. Any potential impacts to GDE's as a result of drawdown to water levels within the groundwater systems within the identified zone of influence are expected to be managed via the proposed trigger levels as well as proposed conditions requiring investigation of any potential impacts to GDE's if trigger levels are exceeded. Conditions recommended also restrict any impacts to GDE's outside of the zone of influence. Additionally, the trigger levels and monitoring requirements recommended are to ensure that the 'zone of influence', as predicted by the modelling, reflects what is actually occurring post development of the pit extension as proposed in the amendment application. A brief review was carried out by DNRME of the model (eDOCS#6169384) and some discrepancies were identified between the observed water levels and the predicted water levels. The discrepancies are more likely to affect the Water Act Chapter 3 requirements however the conditions proposed are expected to also address any variations in observed versus predicted drawdown. The recommendation from the DNRME review to have a peer review of the model is also expected to be addressed by the applicant going through the Water Act Chapter 3 requirements as well as the proposed condition to have the model validated at regular intervals.</p>
	<u>WETLANDS</u>	No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area. Contaminants likely to be released to waters that may impact local wetlands will be considered in the Water sections.
	<u>NOISE</u>	The receiving environment, i.e. sensitive receptors are an adequate distance from the proposed project area so that it is expected that the objectives of the EPP Noise at the sensitive receptors will continue to be met. The complaints based condition and noise limits proposed are expected to ensure the EPP Noise objectives continue to be met following commencement of the proposed activity.
	<u>WASTE</u>	No additional waste rock/overburden dumps are expected to be constructed as a result of the proposed amendment. The characteristics of the receiving environment and the potential impact on it from potential

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		releases of run-off/waste water from the waste rock/overburden dumps will be considered under the WATER considerations sections.
	<u>LAND</u>	The potential impacts on the characteristics of the receiving environment from the potential contaminants carried in stormwater run-off that has come in contact with land disturbed following the commencement of the proposed amendment are considered with the Water sections. Air borne contaminants from the development of the proposed project area are addressed in the Air sections. No other contaminants are expected to be released from the disturbance of land from the proposed amendment that could impact the characteristics of the receiving environment.
(f) for each affected person ¹ for the activity—the order of occupancy or use between the person carrying out the activity and the affected person ¹ ;	<u>AIR</u>	Air emissions from the proposed activity are not expected to result in an affected person due to the proposed mitigation measures in the EIS and EM Plan and the conditions of the EA proposed in the relevant section below.
	<u>WATER</u>	The proposed amendment is not expected to alter the order of occupancy or use in relation to affected persons. The proposed EA conditions are expected to manage the releases of contaminants to water in a manner that will not result in an 'affected person'.
	<u>GROUNDWATER</u>	No releases to groundwater are expected as a result of the proposed amendment and therefore not result in an <i>affected person</i> . Potential impacts to the groundwater through degradation of the water quality and levels impacting on GDE's are addressed in other GROUNDWATER sections. Potential impacts to water levels within groundwater in relation to water use are expected to be addressed through the <i>Water Act 2000</i> obligations under Chapter 3 of this Act.
	<u>WETLANDS</u>	No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area. Contaminants likely to be released to waters that may impact local wetlands will be considered in the Water sections. This consideration in relation to wetlands is not expected to result in an affected person.
	<u>NOISE</u>	Noise emissions from the proposed activity are not expected to result in an affected person due to the proposed mitigation measures in the EIS and EM Plan and the conditions of the EA proposed in the relevant section below.
	<u>WASTE</u>	Potential releases of run-off/waste water from the waste rock/overburden dumps that could result in an affected person will be considered under the WATER considerations sections.
	<u>LAND</u>	The potential releases of contaminants to air and water from the proposed amendment are considered within the Air and Water sections. No other contaminants are expected to be released from the disturbance of land from the proposed amendment that could result in an affected person.

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
(g) the remaining capacity of the receiving environment to accept contaminants or wastes released from future activities while protecting environmental values;	<u>AIR</u>	For the contaminants identified as likely to be release from the proposed activity, the EIS included monitoring of the current particulate matter and dust deposition levels from the current operations. The data presented and the EIS indicated that the air quality objectives of the receiving environment are not expected to be exceeded as a result of the proposed amendment.
	<u>WATER</u>	The proposed amendment is not expected to alter the remaining capacity of the receiving environment to accept releases to waters from future activities with the proposed EA conditions in relation to requiring water quality objectives to be met in the receiving environment while carrying out the activity.
	<u>GROUNDWATER</u>	No contaminants or waste are expected to be released either directly or indirectly from the proposed activity to groundwater and therefore the groundwater quality is not expected to decline as a result of the proposed amendment. The applications supporting information does not determine that there will be an impact to the groundwater quality as a result of the proposed amendment and no determination of the likely impact has been provided and therefore the assessment is based on the assumption that there will be no decline in current groundwater quality as a result of the proposed amendment. As a result, and as recommended for other elements of this assessment, groundwater quality limits and monitoring requirements are recommended to be included in the EA. Although the applicant has nominated bores outside of the 'zone of influence' for quality and level monitoring, the Department considers in necessary and desirable to monitor groundwater quality within the 'zone of influence' due to there being no determination provided of the likely impact to water quality from the proposed amendment.
	<u>WETLANDS</u>	No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area. Contaminants likely to be released to waters that may impact local wetlands will be considered in the Water sections.
	<u>NOISE</u>	Conditions in relation to noise limits have been recommended that are expected to ensure any changes to background noise in the receiving environment are accommodated for when determining impact of the proposed activity on the environmental values for noise.
	<u>WASTE</u>	No additional waste rock/overburden dumps are expected to be constructed as a result of the proposed amendment. The remaining capacity of the receiving environment to accept contaminants from potential releases of run-off/waste water from the waste rock/overburden dumps will be considered under the WATER considerations sections.
	<u>LAND</u>	The remaining capacity of the receiving air and water environments to accept contaminants released from the proposed activities while protecting environmental values are considered with the Water and Air sections. No other contaminants are expected to be released from the disturbance of land from the proposed amendment

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		that could affect the remaining capacity of the receiving environment to receive additional contaminants.
(h) the quantity and type of greenhouse gases released, and the measures proposed to demonstrate the release is minimised using best practice methods that include strategies for continuous improvement;	<u>AIR</u>	The EIS indicated that the GHG emissions from the proposed amendment would be very minimal and that modern plant and equipment would be deployed and kept well maintained to ensure greenhouse gas production was minimised.
	<u>WATER</u>	Not considered applicable for these EV's.
	<u>GROUNDWATER</u>	
	<u>WETLANDS</u>	
	<u>NOISE</u>	
	<u>WASTE</u>	
(i) the likelihood of flooding of the relevant site for the activity, and the potential for a flood to result in the movement of a contaminant, whether or not in a container, from the site into the receiving environment.	<u>LAND</u>	
	<u>AIR</u>	Flooding matters not applicable for air.
	<u>WATER</u>	The proposed amendment is not proposing additional storage of contaminants likely to be affected by flooding and result in the movement of contaminants from the site into the receiving environment. Waste rock/overburden is proposed to be stored on existing stockpiles, fuels/oils/etc. are proposed to be stored within existing facilities. A flood mitigation bund is proposed to be constructed along the pit wall where it traverses close to the local waterways. This bund is expected to exclude flood waters from entering the pit and generating additional potentially contaminated waters from flood water coming in to contact with disturbed areas.
	<u>GROUNDWATER</u>	Flooding of the pit may result in the recharge of groundwater to the aquifers directly connected to the pits however any flooding is not expected to result in the movement of a contaminant to the groundwater (also see WATER section above). A flood mitigation bund is proposed to be constructed along the pit wall where it traverses close to the local waterways. This bund is expected to exclude flood waters from entering the pit.
	<u>WETLANDS</u>	No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area. Contaminants likely to be released to waters during flooding events that may impact local wetlands will be considered in the Water sections.
	<u>NOISE</u>	Flooding matters not applicable for noise.
	<u>WASTE</u>	No additional waste rock/overburden dumps are expected to be constructed as a result of the proposed

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Environmental management decision consideration	Details	How the proposal meets the environmental management decision consideration?
		amendment. The waste material will be placed in existing dump areas. These are expected to be outside of the effect of flooding that would result in the movement of a contaminant from to the site to the receiving environment. Sediment dams and containment infrastructure exists on the current project area.
	<u>LAND</u>	The EIS includes the construction of a flood mitigation bund and stormwater diversion bunds to reduce the likelihood of the pit flooding and for contaminants to move from the proposed project site in to the receiving environment. This, as well as release conditions proposed and included in the EA are expected to address the potential impacts from flooding mobilising contaminants off site from land disturbance as a result of the proposed activity.

¹affected person, for an activity, means a person affected, or who may be affected, by the release of a contaminant or waste from carrying out the activity.

Additional regulatory requirements for particular environmental management decisions

If an environmental management decision relates to an activity mentioned in a provision in this part, the administering authority making the decision must comply with the provision in addition to part 2.

Additional regulatory requirements for particular environmental management decisions	Considerations	How the proposal meets the regulatory considerations?
Release of water or waste to land (refer to section 55 of the EP Regs)	The administering authority must consider the following matters— (a) the topography, including the flooding potential of the relevant land; (b) the climatic conditions affecting the relevant land; (c) the available land on which the water or waste can be released; (d) the storage of the water or waste in wet weather; (e) the way in which the water or waste will be released to the relevant land; (f) the need to protect soil and plants on the relevant land from damage; (g) the potential for infiltration of the water or waste to groundwater; (h) the potential for generation of aerosols or odours from the water or waste; (i) the impact of any transfer or run-off of contaminants from the relevant land to surface waters; (j) the ongoing availability of the land for the release of the water or waste.	The release of waste rock/overburden to land is proposed in the EIS to occur to existing dump locations and therefore the proposed amendment is expected to meet the regulatory requirements. There are no proposed changes to the release of sewage effluent to land and therefore the proposed amendment is expected to continue to meet the regulatory requirements with the current EA conditions and proposed minor amendments. Proposed EA conditions in relation to releases to land from sediment ponds and water storages have been included to ensure the proposed amendment will meet the regulatory requirements.
Release of water, other than stormwater, to surface water (refer to section 56 of the EP Regs)	The administering authority must consider each of the following matters— (a) any available toxicity data relevant to the release and the receiving environment; (b) if there is an initial mixing zone— (i) whether there is any practicable alternative that would reduce or eliminate the initial mixing zone; and (ii) whether the size of the initial mixing zone is likely to adversely affect an environmental value or the ecological condition of the receiving environment, including, for example, a watercourse or wetland; and (iii) whether concentrations of contaminants in the initial mixing zone are acutely toxic to the biota;	The contaminants expected to be generated as a result of the proposed amendment are the same for the current activity with no expected change to the mixing zone. The release limits proposed in the EA for EC are for maximum concentrations however the proposed EA conditions do not authorise releases at levels that would exceed receiving environment WQO's. The anticipated contaminants (EC, sediments and altered pH water to that of the surface water receiving environment) within the release waters are not expected to be acutely toxic at the release concentrations. Receiving environment limits are recommended in the conditions below.

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Additional regulatory requirements for particular environmental management decisions	Considerations	How the proposal meets the regulatory considerations?
Release of stormwater (refer to section 57 of the EP Regs)	The administering authority must consider the following matters— (a) the topography of, and climatic conditions affecting, the receiving environment; (b) if the activity involves exposing or disturbing soil—the soil type, its characteristics and the way it is managed; (c) if the activity involves the storage of materials or wastes that are exposed to rainfall or stormwater run-off—the characteristics and containment of the material or waste.	The proposed amendment does not nominate that stormwater will be released from the site (releases to land addressed in the relevant sections above). Stormwater is proposed to be diverted away from disturbed areas to minimise the entrainment of contaminants. A requirement for an erosion and sediment control plan is included in the EA conditions for managing interactions of stormwater with disturbed areas and waste rock/overburden stockpiles. Run-off from waste rock/overburden stockpiles is directed to on site containment storage ponds/dams.
Release of water or waste to wetlands for treatment (refer to section 58 of the EP Regs)	The administering authority must refuse to grant the application if the authority considers that, because of the activity— (a) the wetland will be destroyed or reduced in size; or (b) the biological integrity of the wetland may not be maintained	The release of water from the dewatering activities for the currently approved mine pit has resulted in the establishment of a wetland, which is considered to have environmental values, despite being of anthropogenic origins. The water from the dewatering activities for the proposed mine pit is expected to be released in the same manner. No nationally significant or Ramsar wetlands have been identified as being present in the proposed project area and therefore this requirement is expected to be met as a result.
Activity involving berthing, docking or mooring a boat (refer to section 59 of the EP Regs)	Not applicable	NA. Proposed amendment activity does not involve berthing, docking or mooring a boat.

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Additional regulatory requirements for particular environmental management decisions	Considerations	How the proposal meets the regulatory considerations?
Activity involving storing or moving bulk material (refer to section 60 of the EP Regs)	<i>Examples of bulk material</i> — alumina, cement, coal, grain, metaliferous ores, quarried materials, woodchips (2) The administering authority must consider each of the following matters— (a) the chemical and physical characteristics of the material; (b) the way in which the material is, or is to be, contained during each stage of the storage or movement of the material; (c) the methods of cleaning up any spillage during movement of the material; (d) if storage or movement of the material is likely to result in the release of part of the material into waters, the impact of the accumulation of the material on the bed of the waters.	The bulk materials expected to be transported and stored as a result of the proposed amendment are similar in chemical and physical characteristics to those currently being transported and stored and are expected to be relatively benign. The EIS and EM Plan have identified processes for the handling and storage/dumping of bulk materials that addresses these regulatory requirements. Conditions within the current EA and proposed in the relevant section below are expected to be adequate in addressing the considerations of the regulatory requirement.
Activity involving acid sulfate soil (refer to section 61 of the EP Regs)		The proposed activity is not expected to intercept acid sulfate soils given the sites geology and previous material characteristics encountered at the site.
Activity involving acid-producing rock (refer to section 62 of the EP Regs)		The activity associated with the proposed amendment is not expected to produce acid producing rock materials given the sites geology and previous material characteristics encountered at the site..
Activity involving direct release of waste to groundwater (refer to section 63 of the EP Regs)		The proposed amendment has not nominated a direct release of waste to groundwater. The activity is not expected to result in the direct release of waste, including waste water to groundwater.

Additional regulatory requirements for particular environmental management decisions	Considerations	How the proposal meets the regulatory considerations?
Activity involving indirect release of contaminants to Groundwater <i>(refer to section 64 of the EP Regs)</i>	<p><i>Example of indirect release of waste to groundwater—</i> storage of contaminated water in a pond allowing infiltration of contaminated water to groundwater</p> <p>(2) The administering authority must consider the following matters—</p> <ul style="list-style-type: none"> (a) the geological stability of the relevant site for the activity; (b) the location, quality and use, or potential use, of the receiving groundwater; (c) the permeability of the earth under the place where the activity is carried out; (d) the presence of containment devices at the relevant site for the activity and their effectiveness in preventing or minimising the release of the waste; (e) the distance separating the receiving groundwater from any containment device; (f) the potential for fluctuations in the level of the receiving groundwater; (g) the way in which materials, including contaminants, will be removed from the containment system; (h) whether or not materials, including contaminants, will be removed from the containment devices and if so, the effectiveness of the methods that will be used for the removal. 	Releases to the artificial wetland and the associated indirect releases to groundwater are considered as part of the GROUNDWATER sections above.

Additional regulatory requirements for particular environmental management decisions	Considerations	How the proposal meets the regulatory considerations?
Generating waste (refer to section 64A of the EP Regs)	<p>The administering authority must consider each of the following matters—</p> <p>(a) any cleaner production program prepared to address the waste generation;</p> <p>(b) the application of the waste and resource management hierarchy and waste and resource management principles to the management of the waste;</p> <p>(c) any waste reduction and recycling plan in force for the local government area in which the waste is, or may be, generated or dealt with.</p>	<p>There is not expected to be a significant increase in wastes other than overburden/waste rock (and water from pit dewatering although this is addressed in the WATER sections). No new waste rock/overburden dumps are expected to be required as a result of the proposed amendment.</p> <p>The EIS and EM Plan nominate that the waste overburden will be re-used within the processing where the qualities of the waste material are suitable. These documents also indicated the treatment of recyclable material, regulated wastes and general wastes will continue as per the current practices that are in accordance with the waste management hierarchy. The EIS AR concluded that the applicant provided adequate control strategies for solid waste, including:</p> <ul style="list-style-type: none"> • adoption of a waste management plan for the existing mining operations that was prepared using the principles outlined in the Environmental Protection (Waste Management) Regulation 2000 • waste minimisation through recycling, re-using and reduction practices • use of overburden for the construction of amenity/flood protection bunds • use of the existing designated waste rock dump areas in ML80127 and ML80002 for the storage of overburden • no disposal of wastes within the project area, apart from overburden material • use of specialist and licensed waste management contractors to provide appropriate on-site management and • off-site disposal of general and industrial waste other than overburden • appropriate signage and security for all waste receptacles and storage areas.

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Additional regulatory requirements for particular environmental management decisions	Considerations	How the proposal meets the regulatory considerations?
Transporting waste (refer to section 64B of the EP Regs) Receiving waste (refer to section 64C of the EP Regs) Activity involving the use or disposal of coal seam gas water (refer to section 64D of the EP Regs)		The proposed activity is not expected to require the transport of waste other than from site to a licensed facility by a licensed operator; involve receiving waste; or using, or disposal of, coal seam gas water.

Standard Criteria (major amendment)

The standard criteria must be considered when deciding an amendment application. For this major amendment, the standard criteria is considered as per sections 206, 207, and 210 of the EP Act. Refer to departmental guideline 'Information for assessing an application for an environmental authority' available on the Policy Register (publication number ESR/2015/1809) for guidance on how to consider the standard criteria.

Standard criteria	How the standard criteria have been considered
(a) the principles of ecologically sustainable development as set out in the 'National Strategy for Ecologically Sustainable Development': (1) the precautionary principle; (2) intergenerational equity; (3) conservation of biological diversity and ecological integrity.	Groundwater and surface water triggers and limits have been recommended taking in to consideration these principles of the standard criteria. Interim limits and triggers have been determined and recommended for inclusion in the draft EA taking in to consideration the precautionary principle as a result of the variances in the data available. The requirement to monitor also considers the precautionary principle and the conservation of diversity and ecological integrity to ensure that any unexpected changes to the environment are detected and investigated, and appropriate management intervention can occur to limit impacts. The indication that the upstream surface monitoring site is potential influenced by releases of mine pit dewatering prompts the consideration in applying the precautionary principle to source an alternative locations (also considers the conservation of ecological integrity). Groundwater level triggers and surface and groundwater quality limits considers the intergenerational equity principle by ensuring the natural environment and resources are maintained for future generations.
(b) any applicable environmental protection policy; and	The relevant applicable EPP's are considered in the relevant sections above and include Air, Noise, and Water.

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Standard criteria	How the standard criteria have been considered
(c) any applicable Commonwealth, State or local government plans, standards, agreements or requirements; and	The applicable standards and requirements such as the Calliope WQO's have been considered in the above assessment.
(d) any applicable environmental impact study, assessment or report.	The EIS and SEIS have been considered in the assessment above and in developing the proposed conditions. The Departments EIS assessment report as well as the EM Plan submitted by the applicant have also been considered.
(e) the character, resilience and values of the receiving environment	The character, resilience and values of the receiving environment have been considered in the relevant sections of this assessment above. Release limits, receiving environment triggers and limits as well as monitoring requirements have been included in the recommended conditions in consideration of this standard criteria.
(f) All submissions made by the applicant and submitters.	The submissions made by the submitters to the EIS report and SEIS have been considered in the assessment and when recommending conditions for the EA.
(g) The best practice environmental management for activities under any relevant instrument, or proposed instrument, as follows— (1) an environmental authority; (2) a transitional environmental program; (3) an environmental protection order; (4) a disposal permit; (5) a development approval.	The conditions recommended to be included or altered in the draft EA are considered best practice environmental management for the activities taking in to consideration the knowledge at the time. Ongoing monitoring and review conditions are recommended that ensure ongoing best practice environmental management.
(h) the financial implications of the requirements under an instrument, or proposed instrument, mentioned in paragraph (g) as they would relate to the type of activity or industry carried out, or proposed to be carried out, under the instrument.	The recommended conditions are not expected to disadvantage the proponent financially beyond what is current best practice environmental management. The proponent has had the opportunity to review the conditions prior to finalising the conditions.
(i) The public interest.	This assessment and the recommended conditions are expected to meet the public interest, specifically in relation to the water and groundwater conditions. The Air and Noise sections have considered the public interest and the relevant environmental protection policies.
(j) Any applicable site management plan.	No site management plan is currently in place for the project area as the land is not currently listed on the Contaminated Lands Register.

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Standard criteria	How the standard criteria have been considered
(k) Any relevant integrated environmental management system or proposed integrated environmental management system.	No IEMS was provided as part of the application documents. The proponent is responsible for ensuring any changes to conditions of the EA as a result of this assessment are integrated in to site management systems.
(l) Any other matter prescribed under a regulation.	All matters prescribed under the regulations relevant to this amendment application have been considered in the relevant sections in the assessment above.

8) Other assessment considerations

Native Title Notification given (PaLM process)	☐ Yes – comments received or period expired. ☒ Not applicable
Regional Interest Development Application approved	☐ Yes ☐ No – EA cannot be granted ☒ Not applicable
EIS process and public notification requirements compliant (If applicable)?	☒ Yes ☐ No – EA cannot be granted ☐ Not applicable
Public Notification requirements in Chapter 3 Division 2 and Division 4 complied with, or substantially complied with? (n.b. Chapter 5 Division 6 public notification requirements are trigger after the decision to proceed or refuse has been made and the draft EA has been provided to the applicant)	☒ Yes ☐ No – EA cannot be granted ☐ Not applicable
The applicant relates to a significant project and Coordinator-general conditions have been imposed on the EA?	☐ Yes ☒ Not applicable
Is a current TEP in place against this EA?	☐ Yes – ensure annotation about TEP is included on the amended EA ☒ Not applicable

9) Consultation

Consultation with CA, DSITI, the departments EIS Assessment team, and DNRME occurred throughout the assessment period and all records of relevant consultation are saved on the Departments document management system.

On 10 January 2018, the assessing officer and delegate attended the East End Mine site to familiarise with the monitoring locations and the mine operations. Multiple draft versions of the EA conditions were sent to the applicant for review and discussion. Records of these communications and when conditions have been accepted by the applicant are saved on the Departments document management system.

10) Conditioning

For a **minor amendment**, the following table does not need to be completed. However, it is important to note that if the administering authority decides to approve the minor amendment, it may also make any other amendments to the conditions of the environmental authority it considers relate to the subject matter of the proposed amendment and are necessary and desirable.

For a **variation and major amendment**, the following table must be completed. The conditions must reflect the outcomes identified in Table 1 of Schedule 5 of the EP Reg. The conditions must be necessary and desirable and should not prescribe how the outcomes are to be achieved unless the risk of environmental harm warrants it. Officers **MUST** use the conditions approved by the department (for example, model mining conditions) unless the outcome that the applicant must achieve is not included in the guidance material. You **must** consider conditioning for the following where appropriate:

Conditions to be considered as per section 210 of the EP Act and s52 of the EP Reg:	Included in EA?	State the reasons why conditions have, or have not, been included in the EA. Also state here conditions that have been used which have not been taken from the conditions library.
Conditions to implement a system for managing risk	☒ Yes ☐ No	Programs for monitoring and management of groundwater and subterranean fauna have been recommended to be conditioned in the EA as a result of the potential risks to the environmental values of these environs. Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions prescribing how any high risks identified must be managed, including measures for avoiding or minimising the release of contaminants. This may be appropriate when the contaminant of concern poses a high environmental risk (for example, persistent organic pollutants), the technology being employed is new and not well understood or the receiving environmental values warrant prescriptive conditions to reduce the risk. Conditions may include how contaminants are stored, handled and disposed of.	☒ Yes ☐ No	The conditions recommended in ATTACHMENT 1: Recommended Draft EA conditions and justification in relation to regulated structures, surface water releases, surface water monitoring and groundwater monitoring are prescriptive where necessary to manage the higher risks associated with the development of regulated structures and the releases of pit water and the associated impacts of the pit dewatering on groundwater. Regulated structures conditions are as per the current conditions library/model conditions. Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions requiring buffers to sensitive receptors to ensure the environmental values are protected. For example, riparian buffers	☐ Yes ☒ No	Buffers were not considered necessary within the EIS AR or other supporting information. The noise limits proposed are expected to protect the EV's associated with noise generation without the need for a buffer due to the proposed amendment moving further away from sensitive receptors.
Conditions about the quality, quantity and way in which contaminants are permitted to be released	☒ Yes ☐ No	Amendment to the conditions that regulate the releases of water to surface waters and to land have been recommended as a result of the assessment above.

Conditions to be considered as per section 210 of the EP Act and s52 of the EP Reg:	Included in EA?	State the reasons why conditions have, or have not, been included in the EA. Also state here conditions that have been used which have not been taken from the conditions library.
to the environment including any specific requirements which limit/reduce the initial attenuation or mixing zone (e.g. specific dilution required for releases to waters) or prescribe that contaminants must be treated before release (e.g. prescribing a level of treatment of by-pass flows from an STP). The purpose of these conditions is to ensure the on-going protection of environmental values.		Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions ensuring a minimum degree of dispersion happens when a contaminant is released	☐ Yes ☒ No	The conditions recommended in relation to the receiving environment limits are recommended to ensure the WQO of the receiving environment are met. It will be the responsibility of the EA holder to ensure that flows within the receiving environment are adequate to ensure the releases of contaminants don't cause the WQO's to not be met. Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions to protect environmental values and meet quality objectives under any relevant environmental protection policies	☒ Yes ☐ No	The conditions recommended and the amendments to conditions recommended are expected to protect the EV's and meet the quality objectives of the EPP's for air, noise and water. Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions about recycling, storing, transferring or disposing of waste in a particular way	☐ Yes ☒ No	Current EA conditions address waste management. Amendments to the current conditions have been recommended to outcome focus the current conditions and use model conditions where appropriate. Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions stating the rehabilitation outcomes required including objectives, indicators and completion criteria.	☐ Yes ☒ No	The current conditions relating to the rehabilitation objectives are adequate when applied to the area the subject of the proposed amendment.

Other conditions that may be considered:	Included in EA?	State the reasons why conditions have, or have not, been included in the EA. Also state here conditions that have been used which have not been taken from the conditions library.
Conditions about the frequency and parameters of monitoring any releases, including any receiving environment monitoring program when appropriate. (refer to section 53 of the EP Reg for matters to consider for decisions imposing a monitoring condition)	☒ Yes ☐ No	Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions imposed by the Coordinator General (only relevant if the project is declared a coordinated project). (refer to section 210 of the EP Act for further details)	☐ Yes ☒ No	Not declared as a coordinated project.

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Other conditions that may be considered:	Included in EA?	State the reasons why conditions have, or have not, been included in the EA. Also state here conditions that have been used which have not been taken from the conditions library.
Conditions' relating to environmental offsets. (refer to section 210 of the EP Act)	☐ Yes ☒ No	The EIS assessment report indicated that there would be no significant impact on state significant biodiversity values and therefore no requirement for an offset.
Conditions requiring financial assurance. (refer to section 364 of the EP Act) ALL mining activities authorised under a mining lease and petroleum activities authorised under a petroleum lease must include a condition requiring financial assurance.	☒ Yes ☐ No	Current EA conditions include a requirement to provide financial assurance. The condition has been amended to reflect the current model conditions. Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions relating to the release of water or waste to land: (a) developing and implementing a land release management plan for the relevant area that protects the environmental values affected, or that may be affected, by the activity; (b) the way in which, or rate at which, the water or waste may be released; (c) releasing the water or waste in a way that minimises infiltration to groundwater; (d) if the water or waste is to be transferred to another entity—the circumstances under which the transfer may occur; (e) releasing the water to a bio-retention system, including, for example, a constructed wetland, for the removal of nutrients from the water. (refer to section 55 of the EP Regs)	☒ Yes ☐ No	Current conditions within the EA have been amended to set the objectives for releases of water from on-site water structures to land to protect the environmental values of land and water (through restricting run-off) and groundwater (through restricting ponding and therefore infiltration to groundwater). Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions relating to the release of water, other than stormwater, to surface water: (a) releasing the water to tidal waters only during particular tidal conditions, including, for example, phases of the tide; (b) releasing the water to non-tidal waters only if the rate of flow of the surface water is greater than a particular level; (c) if coal seam gas water may be released to surface water— (i) minimising the interruption of the recessional stage of the surface water that does not flow continuously; and (ii) requiring the applicant to monitor the flow and	☒ Yes ☐ No	Amendment to the conditions that regulate the releases of water to surface waters and to land have been recommended as a result of the assessment above. Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.

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Other conditions that may be considered:	Included in EA?	State the reasons why conditions have, or have not, been included in the EA. Also state here conditions that have been used which have not been taken from the conditions library.
biological integrity of the surface water and give the administering authority reports about the monitoring. (refer to section 56 of the EP Regs)		
Conditions relating to the release of stormwater: (a) diverting upstream stormwater run-off away from the area contaminated or disturbed by the activity (the affected area); (b) minimising the size of the affected area; (c) covering, paving, roofing and cleaning the affected area; (d) cleaning the affected area without using water; (e) analysing and managing soil; (f) installing and maintaining appropriate control measures; (g) treating the affected area. (refer to section 57 of the EP Regs)	☒ Yes ☐ No	A water management plan and sediment and erosion control plan are included in the conditions and are considered appropriate for the management of stormwater and associated releases. Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.
Conditions relating to the storing or moving bulk material: (a) installing and maintaining appropriate control measures; (b) managing stockpiles of the material in a particular way; (c) collecting, removing or disposing of spillage released while moving the material; (d) monitoring the impact of releases of contaminants or waste from storing or moving bulk materials on the receiving environment including, for example, the impact of environmental nuisance and impacts on the biota of adjacent waters. (refer to section 60 of the EP Regs)	☐ Yes ☒ No	There is not expected to be a change in the way bulk materials such as overburden/waste rock are handled, stored and managed as a result of the proposed amendment.
Conditions relating to the indirect release of contaminants to groundwater: (a) the design, construction, function, protection and maintenance of containment devices; (b) maintaining a particular distance between the receiving groundwater and the point of contact	☒ Yes ☐ No	Monitoring requirements have been recommended to be included in the EA to monitor any impacts as a result of the extraction of water from the mine pits. Contaminants are not expected to be indirectly released to groundwater as a result of the activity. Refer to ATTACHMENT 1: Recommended Draft EA conditions and justification.

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Other conditions that may be considered:	Included in EA?	State the reasons why conditions have, or have not, been included in the EA. Also state here conditions that have been used which have not been taken from the conditions library.
between each containment device and the underlying earth; (c) removing materials from the containment devices. (refer to section 64 of the EP Regs)		
Conditions relating to the generation of waste: (a) the segregation of the waste; (b) emission controls; (c) the storage of the waste; (d) monitoring and reporting of matters concerning the waste. (refer to section 64A of the EP Regs)	☐ Yes ☒ No	The conditions of the current EA include conditions relating to waste. There is not expected to be a change in the expected volumes or types of wastes generated.

11) Summary

In accordance with section 207 of the EP Act, it is recommended that the EA amendment application be allowed to proceed and that the application moves to the next stage of the assessment, that is to issue a draft EA to the applicant within 5 business days under s208, unless a longer period for the preparation of the draft EA has been agreed to by the department and the applicant.

It is recommended that the conditions within Attachment 1 be included in the draft EA provided to the applicant for finalisation prior to public notification.

The applicant should be notified via email that the applicant has been 'allowed to proceed' and that the s208 stage will begin.

12) Recommendation

Complete part (a) or (b) and check the 'allow to proceed' or 'refuse' check box.

(a)	If your recommendation is to allow to proceed, complete the following:	
	In accordance with section 207 of the EP Act, it is recommended that the EA amendment application be allowed to proceed and that the application moves to the next stage of the assessment under s208 of the EP Act that is to issue a draft EA to the applicant within 5 business days unless a longer period for the preparation of the draft EA has been agreed to by the department and the applicant.	APPROVE ☒
(b)	If your recommendation is to refuse, provide statement of reasons.	

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<Insert statement of reasons if recommending refusal>	REFUSE ☐
<ul style="list-style-type: none"> Send Decision Notice to applicant within 10 BDs of decision 	

Assessing Officer: Luke Johnston

Position: Senior Environmental Officer

Signed:

Date: 2/2/2018

13) Review and endorsement

Jacob Toe	sch4p4(6) Personal Information	2/2/2018
Manager/Supervisor	Signed	Date

Approval

I approve the recommendation based on the reasons stated in this report.

Filiz Tansley	sch4p4(6) Personal Information	2/2/18
Delegate	Signed	Date

Post decision considerations

<p>Copy of approval and WaTERS Approval Proforma has been sent to psd.help@qld.gov.au</p> <p><if the approval includes conditions for release to water and/or to land or requires monitoring of releases, storages, surface water and/or groundwater; then the WaTERS Approval Proforma available on the Policy Register (publication number ESR/2016/2532) must be completed and the WaTERS administrators (psd.help@qld.gov.au) must be notified. This applies to both resource and non-resource activities. For further details, please consult WaTERS website (www.business.qld.gov.au/industry/water/water-release-monitoring) or call (07) 3170 5555</p>	<p>☐ Yes ☒ Not applicable</p>
<p>Offset condition has been included in the offsets register</p> <p><if the application is approved and an offset condition is imposed, details of the offset condition must be included in the offsets register. The offsets register is located at <insert location of the offsets register></p>	<p>☐ Yes ☒ Not applicable</p>

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APPENDIX A: EA amendment assessment process (in accordance with the EP Act current as at 14 March 2013)

Item	Timeframes	Section of EP Act	Comment
Stage 1 – EIS			
Process proceeds after EIS process	28/10/2014	198-199	The process may proceed if the EIS has been completed whether or not the applicant has submitted an EM Plan. S.60 states EIS process is completed when the proponent is given an EIS AR. CA were given an EIS AR on 28/10/2014.
Applicant must submit an EM Plan		201-203	The applicant must submit an EM Plan that complies with the content requirements of s.203. The EM Plan can be submitted whether or not the EIS process has been concluded. The EM Plan is to propose environmental protection commitments to help the administering authority prepare the draft EA for the application
Applicant may amend or replace EM Plan		204	The EM Plan can be amended or replaced any time before the refusal period ends by giving the Department a written notice stating the amendment (EM Plan amendment notice) and the fee prescribed by regulation (it appears that there is no fee to amend an EM Plan)
EM Plan assessment (the Assessment Period)	Within 30 BD ¹ of submission	205-206	The Department assesses whether the EM Plan complies with relevant regulatory criteria considering: the EM Plan, whether EM Plan complies with content requirements of s.203; the standard criteria. The EM Plan AR may only be given in the assessment period for an EM Plan AR which is defined in s.39 of the EP Reg as 30 BD after the EM Plan is submitted. An assessment report is not required to be given to the applicant as it is a 'may' requirement. EM Plan assessment will be incorporated in to the decision to refuse or to allow to proceed under s207.
Stage 2 – decision to refuse or allow to proceed			
Decision to refuse or allow to proceed (Refusal Period)	10 BD ¹	207	The Department decides whether to refuse the application or allow the application to proceed within the refusal period defined in s.10(b) of the EP Reg as 10 BD after EM Plan AR period (which is 30 BD after the EM Plan is submitted). In making the decision the Department must consider: the application documents; the standard

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			criteria; relevant WR declaration for the area; any suitability report; the status of the application under the MR Act. If decision is to refuse must within 10 BD of decision give applicant info notice.
Stage 3 – draft EA			
Issue Draft EA	5 BD ¹	208	If the application is allowed to proceed, the Department must give the applicant and the mining registrar a draft EA within 5BD after refusal period ends. s.210 lists conditions that may and must be included in the draft EA.
Stage 4 – public notice and objections			
Public notice of application	DNRM issue notice 5 BD after Draft EA Min. 20 BD after DNRM give certificate of public notification	211	Objection period reliant on Mineral Resources Act (s252A of version current as at 1 February 2013-relevant at time of application). DNRM will advise on the relevant version of the MR Act that will apply for PN and Objections.
Public access to application documents	Objection period	213	The Department to make application documents publically available at head office or another appropriate office.
Declaration of compliance	5BD ¹ after objection period ends	214	
Assess PN requirements	Within 10 BD ¹ of objection period ending	215(1)	if not compliant with PN - decide whether to refuse or proceed
Substantial compliance notice	10BD ¹ if decide not to allow to proceed	215(3)	within 10BD after the decision to allow or not allow the application to proceed is made
Acceptance of objections	NA – must accept all properly made objections	217	May accept other not properly made objections.
Referral to land court	10BD ¹	219	Within 10 BD of end of objections period if objection received.
Notice of referral to land court	10BD ¹	219(5)	Within 10BD after making the referral, provide applicant and objector a copy of the referral.
Stage 5 – decision			
Ministers decision		225	See s225 if required
Issue final EA	10BD ¹	228	Within 10 BD of end of objections period if no objections received or after receiving written notice from applicant stating no current objections.
Provide copy to applicant	10BD ¹ after grant of ML	228(3)	Insert EA in register and provide copy to applicant

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¹business days—(a) generally, does not include a day between 26 December and 1 January in the following year; and (b) for chapter 3, part 1, see section 39 (s39 business days does not include a business day between 20 December and 5 January in the following year.)

APPENDIX B: Application timeline

Item	Date	Section of EP Act	Comment
Application			
EA amendment application	01/12/2008	238	EA amendment application (to incorporate ML80156) was received
EIS decision	24/02/2009	248	The Department decided an EIS was required
Terms of reference (ToR)			
Draft ToR submitted	31/07/2009	41	A draft ToR was received 10/06/2009. The Department advised that the draft ToR did not allow purpose of the EIS to be achieved in accordance with s.41. An initial advice statement and revised draft ToR was submitted 31/09/2009
ToR Notice	14/08/2009	42	ToR notice provided to proponent
ToR notice published	14/08/2009	43 (1)	ToR advertised on website, Courier Mail and Gladstone Observer
ToR notice given to affected parties	21/08/2009	43 (3)	
Public review and submissions	17/08/2009	43 (3)	Period for review and submissions 17/8/2009 to 25/09/2009. 12 submissions were received
THE DEPARTMENT provided comments	09/10/2009	44	
Proponent responded to comments	09/11/2009	45	
Final TOR prepared and published	04/12/2009	46	Issued 4/12/09, published 5/12/09
EIS submission and assessment			
EIS submitted	01/11/2013	47	Initial EIS submitted 20/12/2012 (version 214_710_014) did not meet requirements. Timeframes to submit were extended by

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			agreement and a revised EIS version was submitted 01/11/2013 (version 214_712_014)
Decision to allow EIS to proceed	04/11/2013	49 (1) and (2)	The Department advised EIS addresses TOR and application is allowed to proceed
Decision to allow notice	18/11/2013	49 (5)	
EIS notice given to affected persons and advertised	09/12/2013	51	
EIS notice advertised	14/12/2013	51	Advertised in Courier Mail and Gladstone Observer
EIS submission period	16/12/2013	52	Voluntarily extended by proponent beyond minimum 30 day period to account for the Christmas holiday period 16/12/2013 to 25/2/2014. 21 submissions were received
Stat dec public notice	20/12/2013	53	
Submissions provided to proponent	28/02/2014	56 (1)	Late submission forwarded 11/3/2014
Supplementary report to EIS	01/08/2014	56 (2) and (3)	Date for submission was extended to 01/08/2014. In response to submissions the Department received supplementary EIS (version 214_712_011r1)
EIS allowed to proceed	01/09/2014	56A (2) and (3)	The Department decides supplementary EIS response to submissions is adequate for EIS process to proceed
EIS allowed to proceed notice	15/09/2014	56A(4)	
EIS AR given to proponent	28/10/2014	60	Assessment report provided to applicant.
EM Plan Submission and extension and Assessment			
Draft EM Plan submitted for comment	29/07/2015	n/a	Applicant provided the Department an amended draft EM Plan for comment prior to formal submission.
Comments provided	01/09/2015	n/a	The Department provided comments on the draft EM Plan in a letter.
EM Plan submitted	26/10/2016	204	The applicant formally lodged an EM Plan for the application.
Amended EM Plan Submitted	18/08/2016	204	On 18 August 2016, CA submitted an

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			amended EM Plan (dated July 2016) in accordance with s204 of the EP Act thus triggering a restart of the EM Plan assessment period to finish on 29 September 2016. The refusal period would therefore end 10 business days after the 29 September 2016. The refusal period was further extended on five occasions to, ultimately, 1 December 2017.
Amended EM Plan Submitted	29/11/2017	204	On 19 November 2017, CA submitted an amended EM Plan (dated November 2017) in accordance with s204 of the EP Act thus triggering a restart of the EM Plan assessment period to finish on 18 January 2018. The refusal period would therefore end 10 business days after the 18 January 2018.
EM Plan assessment period ends	18/01/2018	204	As above
Decision to proceed			
Decision to refuse or allow to proceed (<i>Refusal Period</i>)	Due 02/02/2018	207	10 BD after EM Plan assessment period ends as above.
Issue Draft EA	09/02/2018	208	5 BD after decision to refuse or allow to proceed is made unless extended by agreement.

ATTACHMENT 1: Recommended Draft EA conditions and justification.

New condition #	Proposed amendments	Current condition #	8 October 2013																												
NA	Add ERA 33 Crushing, grinding, milling or screening to ML3631 and ML3659	NA	NA	CA requested addition of the ERA to add clarity to the activities authorised on site. Adding ERA 33 does not alter the highest AES for the project and aligns with the ancillary activities carried out on the nominated leases.																											
A1	No change																														
A2	<p>In carrying out the mining activity authorised by this environmental authority, the environmental authority holder must comply with the authorised disturbance areas listed in Table A1 – Authorised disturbance and as depicted in Figure 1 - Project Infrastructure Layout Mine Area and Support Infrastructure.</p> <p>Table A1 - Authorised disturbance</p> <table border="1"> <thead> <tr> <th rowspan="2">Mine Feature Name</th><th colspan="2">Location (GDA94)^[1]</th><th rowspan="2">Maximum Disturbance Area (ha)</th><th rowspan="2">Description / Purpose</th></tr> <tr> <th>Latitude</th><th>Longitude</th></tr> </thead> <tbody> <tr> <td>Water Storage / Settling Ponds</td><td></td><td></td><td>11</td><td>Includes: water storages, sediment settling ponds.</td></tr> <tr> <td>Void / Mine Workings / Haul Roads</td><td></td><td></td><td>209</td><td>Includes: Voids, haul roads, mine workings, access roads</td></tr> <tr> <td>Spoil Dumps</td><td></td><td></td><td>53</td><td>Includes: overburden and spoil dumps</td></tr> <tr> <td>Stockpiling/Crushing/Loading and Infrastructure</td><td></td><td></td><td>37</td><td>Includes: Stockpiles, Crushing Plant, Offices, Workshops, Rail Loop</td></tr> </tbody> </table> <p>^[1] Coordinates indicate location of mine feature not boundaries.</p>	Mine Feature Name	Location (GDA94) ^[1]		Maximum Disturbance Area (ha)	Description / Purpose	Latitude	Longitude	Water Storage / Settling Ponds			11	Includes: water storages, sediment settling ponds.	Void / Mine Workings / Haul Roads			209	Includes: Voids, haul roads, mine workings, access roads	Spoil Dumps			53	Includes: overburden and spoil dumps	Stockpiling/Crushing/Loading and Infrastructure			37	Includes: Stockpiles, Crushing Plant, Offices, Workshops, Rail Loop	NA	New Condition	Agreed to by applicant. Condition required to specify locations and areas of disturbance to ensure known and future disturbance is authorised.
Mine Feature Name	Location (GDA94) ^[1]		Maximum Disturbance Area (ha)	Description / Purpose																											
	Latitude	Longitude																													
Water Storage / Settling Ponds			11	Includes: water storages, sediment settling ponds.																											
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Spoil Dumps			53	Includes: overburden and spoil dumps																											
Stockpiling/Crushing/Loading and Infrastructure			37	Includes: Stockpiles, Crushing Plant, Offices, Workshops, Rail Loop																											
A3	No change. Condition numbering only (previously A2)																														
A4	<p>All flammable, corrosive and combustible liquids, including petroleum products, must be stored and handled in accordance with:</p> <ol style="list-style-type: none"> The latest edition of AS1940—<i>The storage and handling of flammable and combustible liquids</i> where applicable; The current Australian Standard where applicable; or Where no relevant Australian Standard exists, store such materials within an on-site containment system sufficient to prevent release to the receiving environment. 	NA	New Condition	Agreed to by applicant. Condition is outcome focussed for the storage and handling of flammable and combustible materials.																											
A5	Financial assurance must be lodged in the amount, the form, and within the time required by the administering authority.	A4	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. Financial assurance must be lodged with the administering authority in the amount, the form, and within the time required by the administering authority.	Agreed to by applicant. Simplified condition as EP Act addresses financial assurance requirements.																											
A6	<p>Any records kept or created in relation to this environmental authority must be:</p> <ol style="list-style-type: none"> kept for a period of at least five years; and provided to the administering authority on request; and provided to the administering authority in the format requested. 	A3	Except where specified otherwise in another condition of this authority, all monitoring records or reports required by this environmental authority must be kept for a period of not less than 5 years.	Agreed to by applicant. Condition is the same intent and combines several other current conditions in to the one condition.																											
A7	An appropriately qualified person(s) must monitor and record all indicator(s) required by and in accordance with this environmental authority .	NA	New condition	Agreed to by applicant. Outcome focussed condition to ensure appropriately qualified persons carry out monitoring required by the EA.																											
NA	DELETED	A5	The amount of financial assurance must be reviewed by the holder of this environmental authority when a plan of operations is amended or replaced or the authority is amended.	Deleted. Trigger for FA review is within legislation and is triggered for review																											

				as a result of the listed actions i.e. plan of operations.
A8	When required by the administering authority , monitoring must be undertaken in the manner prescribed by the administering authority to investigate a complaint arising from the activity . The monitoring results must be recorded.	A10	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, when implemented, must be provided to the administering authority within 10 business days if 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.	Agreed to by applicant. Intent of the conditions remains the same. Model condition proposed in EIS AR. Slightly modified current model common condition used (modification "...investigate a complaint of environmental nuisance arising from the activity..."). Some monitoring may be required to determine if environmental nuisance or harm was caused. Requirement to record results will ensure that the results can be obtained by the administering authority on request in accordance with condition (new) A6.
A9	The following must be recorded in relation to all monitoring required under a condition of this environmental authority: a) The date and time when the sample was taken; b) The location where the sample was taken; c) The results of all monitoring and details of exceedances of the conditions of this environmental authority; and d) Any other pertinent details of relevance to interpreting the sample results (i.e. stream or release flow rate, wind, conditions, atmospheric conditions, any relevant observations such as odour or colouration)	NA	New Condition	Agreed to by applicant. Combines a number of data recording conditions (e.g. old W18). Specifics to be recorded will ensure that the results can be obtained by the administering authority on request in accordance with condition (new) A6.
A10	The environmental authority holder must implement and maintain a risk management system for mining activities which mirrors the content requirement of the Standard for Risk Management (ISO31000:2009), or the Standard for Environmental Management Systems (ISO14001), or the latest edition of an Australia standard for risk management, to the extent relevant to environmental management.	A6	The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the Standard for Risk Management (ISO31000:2009), or the latest edition of an Australia standard for risk management, to the extent relevant to environmental management, within 3 MONTHS FROM DATE OF ISSUE of this environmental authority.	Agreed to by applicant. Modified to reflect continuation of EA and condition. Intent of condition remains the same.
A11	The environmental authority holder must notify the administering authority within twenty four (24) hours of becoming aware of any incident or event which does or may contravene a condition of this environmental authority. Notification to the administering authority must be provided to the administering authority Pollution Hotline on 1300 130 372 and PollutionHotline@ehp.qld.gov.au .	A7	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 in accordance with the conditions of this environmental authority.	Agreed to by applicant. Condition modified to ensure all contraventions of the EA conditions are notified, not just releases of contaminants.
A12	Within ten (10) business days following the initial notification of an incident or event, 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; and b) Outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and c) Proposed actions to prevent recurrence of the emergency or incident.	A8	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 recurrence of the emergency or incident.	Agreed to by applicant. Minor change – administrative.
A13	The environmental authority holder must record all environmental complaints received about the mining activities including: a) Name, address and contact number of the complainant; b) Time and date of complaint; c) Reasons for the complaint; d) Investigations undertaken; e) Conclusions formed; f) Actions taken to resolve the complaint; g) Any abatement measures implemented; and h) Person responsible for resolving the complaint	A9	The holder of this environmental authority must record all environmental complaints received about the mining activities including: a) Name, address and contact number 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.	Agreed to by applicant. Minor change – administrative.

A14	Compliance with the conditions of this environmental authority must be audited at regular intervals not exceeding once every three (3) years. The audit must be conducted by a suitably qualified third party auditor. The environmental authority holder must submit a final version of the auditor's report to the administering authority within ninety (90) days of completing the audit.	A11	The holder of this environmental authority must: a) Within one year of the commencement of this 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 years from the completion of the report referred to above; c) Provide each report to the administering authority within 90 days of its completion.	Agreed to by applicant. Amendment to remove reference to commencement date (amendment application) and for review to continue at regular 3 year intervals.
NA	Deleted.	A12	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.	Agreed to by applicant. Deleted. Reference is made to specific standards where required and addressed by (new) A7. Condition removed to avoid duplication in the EA. Considered redundant as the outcome focussed conditions throughout the EA require compliance with contemporary standards. Removes complication and improves likelihood for leading practice environmental management because the EA holder will be required to comply with contemporary standards.
A15	All waste generated as part of the mining activities must be lawfully reused, recycled, or removed to an off-site facility that can lawfully accept the waste.	E6 E7	All regulated waste removed from the site must be removed by a person who holds a current approval to transport such waste under the provisions of the <i>Environmental Protection Act 1994</i> . Regulated waste must only be removed to a facility licenced under the <i>Environmental Protection Act 1994</i> to receive such waste.	Agreed to by applicant. Common condition (W1) (ESR/2015/1828 version 9). Condition is outcome focussed and satisfies the intent of deleted existing conditions E5-E7. EIS AR recommended model conditions C2 and C3. The conditions were not applied for and are not considered through assessment to be necessary. Condition C1 conditions the outcome of these model conditions. Sewage effluent disposal to land addressed through Land schedule conditions.
A16	No change. Condition numbering only (previously E1)			
A17	No change. Condition numbering only (previously E2)			
A18	No change. Condition numbering only (previously E3)			
A19	No change. Condition numbering only (previously E4)			
A20	The consequence category of any structure must be assessed by a suitably qualified and experienced person in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Dams (EM635)</i> at the following times: a) Prior to the design and construction of the structure, if it is not an existing structure; or b) Prior to any change in its purpose or the nature of its stored contents.	G1	The hazard category of any structure must be assessed by a suitably qualified and experienced person: a) in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM365)</i> ; and b) in any of the following situations: i) prior to the design and construction of the structure; or ii) prior to any change in its purpose or the nature of its stored contents; and iii) in accordance with the <i>Manual for assessing Hazard Categories and Hydraulic Performance of Dams</i> .	Agreed to by applicant. Amended to current model conditions for regulated dams.
A21	A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence assessment for more than one structure.	G2	A hazard assessment report and certification must be prepared for any structure assessed and the report may include a hazard assessment for more than one structure.	

NA	Deleted.	G3	The holder must, on receipt of a hazard assessment report and certification, provide to the administering authority one paper copy and one electronic copy of the hazard assessment report and certification.
A22	Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Dams (ESR/2016/1933)</i> .	G4	Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> .
A23	Except for an existing structure , all regulated structures must be designed by, and constructed under the supervision of, a suitably qualified and experienced person in accordance with the requirements of the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> .	G5	The holder must take reasonable and practical measures so that each dam associated with the mining activity is designed, constructed, operated and maintained in accordance with accepted engineering standards and is fit for the purpose for which it is intended.
A24	Except for an existing structure , construction of a regulated structure is prohibited unless <ul style="list-style-type: none"> a) The environmental authority holder has submitted a consequence category assessment report and certification to the administering authority; b) Certification for the design, design plan and the associated operating procedures has been certified by a suitably qualified and experienced person in compliance with the relevant condition of this environmental authority. 		NA. New conditions.
A25	Except for an existing structure , certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan in the form set out in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> , and must be recorded in the Register of Regulated Structures.		
A26	Except for an existing structure , regulated structures must: <ul style="list-style-type: none"> a) Be designed and constructed in compliance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i>; b) Be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of: <ul style="list-style-type: none"> i. floodwaters from entering the regulated dam from any watercourse or drainage line; ii. wall failure due to erosion by floodwaters arising from any watercourse or drainage line. c) Have the floor and sides of the dam designed and constructed to prevent or minimise the passage of the wetting front and any entrained contaminants through either the floor or sides of the dam during the operational life of the dam and for any period of decommissioning and rehabilitation of the dam. 		
A27	Except for an existing structure , certification by the suitably qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure, and state that: <ul style="list-style-type: none"> a) The 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure; b) Construction of the regulated structure is in accordance with the design plan. 		
A28	All affected persons must be provided with a copy of the emergency action plan in place for each regulated structure: <ul style="list-style-type: none"> a) For existing structures that are regulated structures, within ten (10) business days of this condition taking effect; b) Prior to the operation of the new regulated structure; and c) If the emergency action plan is amended, within five (5) business days of it being amended. 		
A29	Operation of a regulated structure, except for an existing structure, is prohibited unless the environmental authority holder has submitted to the administering authority <ul style="list-style-type: none"> a) One (1) paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with condition A24; b) A set of 'as constructed' drawings and specifications; c) Certification of those 'as constructed drawings and specifications' in accordance with condition A27; d) Where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the design storage allowance (DSA) volume across the system, a copy of the certified system design plan; e) The requirements of this authority relating to the construction of the regulated structure have been met; f) The holder has entered the details required under this authority, into a Register of Regulated Structures; and g) There is a current operational plan for the regulated structure. 		
A30	Each regulated structure must be maintained and operated, for the duration of its operational life until decommissioned and rehabilitated, in a manner that is consistent with the current operational plan and, if applicable, the current design plan and associated certified 'as constructed' drawings.		

A31	For regulated structures that have not been certified as low consequence category for 'failure to contain – overtopping', the mandatory reporting level (MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.	
A32	For regulated structures that have not been certified as low consequence category for 'failure to contain – overtopping', the environmental authority holder must, as soon as practical but within forty-eight (48) hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.	
A33	For regulated structures that have not been certified as low consequence category for 'failure to contain – overtopping', the environmental authority holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.	
A34	For regulated structures that have not been certified as low consequence category for 'failure to contain – overtopping', the environmental authority holder must record any changes to the MRL in the Register of Regulated Structures.	
A35	The environmental authority holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken prior to 1 July of each year.	
A36	By 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the DSA volume for the dam (or network of linked containment systems).	
A37	The environmental authority holder must, as soon as possible but within forty-eight (48) hours of becoming aware that the regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.	
A38	The environmental authority holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.	
A39	Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.	
A40	At each annual inspection, the condition and adequacy of all components of the regulated structure must be assessed and a suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and include a recommendations section, with any recommended actions to ensure the integrity of the regulated structure or a positive statement that no recommendations are required.	
A41	The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i>	
A42	The environmental authority holder must within twenty (20) business days of receipt of the annual inspection report, provide to the administering authority: a) The recommendations section of the annual inspection report; b) If applicable, any actions being taken in response to those recommendations; and c) If, following receipt of the recommendations and (if applicable) recommended actions, the administering authority requests a copy of the annual inspection report from the environmental authority holder, provide this to the administering authority within ten (10) business days of receipt of the request	
A43	The environmental authority holder must provide a copy of any reports, documentation and certifications prepared under this authority, including but not limited to any Register of Regulated Structures, consequence assessment, design plan and other supporting documentation, to a new environmental authority holder on transfer of this activity.	
A44	Regulated structures must not be abandoned but be either: a) Decommissioned and rehabilitated to achieve compliance with Schedule E of this environmental authority; or b) Be left in-situ for a use by the landholder provided that: i. it no longer contains contaminants that will migrate into the environment; ii. it contains water of a quality that is demonstrated to be suitable for its intended use(s); and iii. the environmental authority holder and the landholder agree in writing that the: • dam will be used by the landholder following the cessation of the environmentally relevant activity(ies); and • landholder is responsible for the dam, on and from an agreed date.	
A45	A Register of Regulated Structures must be established and maintained by the environmental authority holder for each regulated structure.	

A46	The environmental authority holder must provisionally enter the required information in the Register of Regulated Structures when a design plan for a regulated structure is submitted to the administering authority.			
A47	The environmental authority holder must make a final entry of the required information in the Register of Regulated Structures once compliance with condition A29 has been achieved.			
A48	The environmental authority holder must ensure that the information contained in the Register of Regulated Structures is current and complete on any given day.			
A49	All entries in the Register of Regulated Structures must be approved by the chief executive officer for the environmental authority holder, or their delegate, as being accurate and correct.			
A50	The environmental authority holder must, at the same time as providing the annual return, supply to the administering authority a copy of the records contained in the Register of Regulated Structures, in the electronic format required by the administering authority			
B1	The release of dust or particulate matter, or both, resulting from the mining activity must not cause environmental harm to an environmental value for air.	B1	The release of dust or particulate matter or both resulting from the mining activity must not cause environmental nuisance, at any sensitive place.	Agreed to by applicant. Changed nuisance to harm as harm includes nuisance. No releases to air environment causing harm authorised. Sensitive place definition removed from EPP (Air) and replaced with env. value. Relevant EV for expected emissions of dust and particulates is human health and wellbeing.
NA	DELETED	B2	When requested by the administering authority, dust and particulate 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 place, and the results must be notified within 14 days to the administering authority following the completion of monitoring.	Agreed to by applicant. Addressed by A8 (new).
B2	When measured at any area or place outside of the mining lease boundary, airborne contaminants generated by the mining activities must not cause the following levels to be exceeded: a) Dust deposition of 120 milligrams per square metre per day, averaged over 1 month, when monitored in accordance with the most recent version of <i>Australian Standard AS3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method.</i> b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, for no more than five exceedances recorded each year, when monitored in accordance with the most recent version of either: i. <i>Australian Standard AS3580.9.6 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM10 high volume sampler with size-selective inlet – Gravimetric method, or</i> ii. <i>Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM10 low volume sampler – Gravimetric method.</i>	B3	If the environmental authority holder can provide evidence through monitoring that the following limits are not being exceeded then the environmental authority holder is not in breach of condition B1: a) Dust deposition of 120 milligrams per square metre per day, averaged over 1 month, when monitored in accordance with the most recent version of <i>Australian Standard AS3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method.</i> b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, at a sensitive or commercial place downwind of the operational land, when monitored in accordance with: i. <i>Australian Standard AS3580.9.6 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM10 high volume sampler with size-selective inlet – Gravimetric method, or</i> ii. Any alternative method of sampling PM10 which may be permitted by the Air Quality Sampling Manual as published from time to time by the administering authority.	Agreed to by applicant. Intent and objectives of condition remains the same. Condition specifies where limits apply i.e. mine boundary however the identified environmental value is human health therefore limits apply to impacts on the relevant environmental value outside of the mine boundary. Within boundary is a workplace and therefore WHS legislation applies in relation to air quality.
NA	Deleted	B4	If monitoring indicates exceedance of the relevant limits in condition B3, then the environmental authority holder must: a) Address the complaint including the use of appropriate dispute resolution if required, or b) Immediately implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.	Agreed to by applicant. Limits are not to be exceeded. Compliance response from the department will be determined commensurate with the environmental impact.
NA	Deleted	E5 (old)	Where possible and practical, vegetation waste from clearing shall be spread on rehabilitated areas. Vegetation waste may only be burnt as a last resort and only if there is minimal risk of causing nuisance to the neighbouring sensitive receptors. General waste must not be burnt or allowed to burn on the licenced sites unless permitted by the administering authority.	Agreed to by applicant. Burning of vegetation does not occur on site. Burning of general waste is not permitted nor has it been applied for. Rehabilitation outcomes nominated in Schedule E

				c) location of the blast/s within the mining area (including which bench level) d) atmospheric conditions including temperature, relative humidity and wind speed and direction, and e) location, date and time of recording.	be met for blasting activities. Monitoring will be triggered by condition A8 (new) for complaint based monitoring requirements.																					
Table C2 – Blasting noise limits	<table><tr><th rowspan="2">Blasting noise limits</th><th colspan="2">Sensitive receptor blasting noise limits place limits</th></tr><tr><th>8am to 5pm Monday to Saturday</th><th>Other times and Public holidays</th></tr><tr><td>Airblast overpressure</td><td>115dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120dB (Linear) Peak at any time</td><td>No blasting</td></tr><tr><td>Ground vibration peak particle velocity</td><td>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</td><td>No blasting</td></tr></table>	Blasting noise limits	Sensitive receptor blasting noise limits place limits		8am to 5pm Monday to Saturday	Other times and Public holidays	Airblast overpressure	115dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120dB (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	Table D2 – Airblast overpressure limits	<table><tr><th rowspan="2">Parameter</th><th colspan="2">Airblast overpressure measured at a sensitive or commercial place</th></tr><tr><th>Monday to Sunday 9am – 7pm</th><th>Other times and public holidays</th></tr><tr><td>Air blast overpressure level (dB [Lin] Peak)</td><td>Maximum 115 dB for 4 out of 5 consecutive blasts</td><td>No blasting to occur</td></tr><tr><td>Air blast overpressure level (dB [Lin] Peak)</td><td>120 dB maximum</td><td>No blasting to occur</td></tr></table>	Parameter	Airblast overpressure measured at a sensitive or commercial place		Monday to Sunday 9am – 7pm	Other times and public holidays	Air blast overpressure level (dB [Lin] Peak)	Maximum 115 dB for 4 out of 5 consecutive blasts	No blasting to occur	Air blast overpressure level (dB [Lin] Peak)	120 dB maximum	No blasting to occur	Agreed to by applicant. Blasting noise limits align with model mining conditions and the Departmental Guideline for Noise and vibration from blasting (EM2402, ESR/2016/2169 version 3.00). The control strategies within the EM Plan for noise and blasting nominated blasting to be restricted to between 8am and 5pm which is more restrictive than the department's requirements and have been accepted in this condition.
			Blasting noise limits	Sensitive receptor blasting noise limits place limits																						
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		<table><tr><th>Parameter</th><th>Blast event</th></tr><tr><td>Ground vibration of more than 35 Hz</td><td>25 mm/sec peak particle velocity (maximum)</td></tr><tr><td>Ground vibration of less than 35 Hz</td><td>10 mm/sec peak particle velocity (maximum)</td></tr></table>	Parameter	Blast event	Ground vibration of more than 35 Hz	25 mm/sec peak particle velocity (maximum)	Ground vibration of less than 35 Hz	10 mm/sec peak particle velocity (maximum)																		
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Ground vibration of more than 35 Hz	25 mm/sec peak particle velocity (maximum)																									
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NA	Delete	D2	When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous or 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 14 days to the administering authority following completion of monitoring.	Addressed by (new) A8.																						
C3	When requested by the administering authority, noise monitoring and recording must include the following descriptor characteristics and matters: a) LAN,T (where N equals the statistical levels of 1, 10 and 90 and T = 15 mins); b) Background noise LA90; c) The level and frequency of occurrence of impulsive or tonal noise and any adjustment and penalties to statistical levels; d) Atmospheric conditions including temperature, relative humidity and wind speed and directions; e) Effects due to any extraneous factors such as traffic noise; f) Location, date and time of monitoring; g) If the complaint concerns low frequency noise, Max LpLIN,T and one third octave band measurements in dB(LIN) for centre frequencies in the 10–200 Hz range.	D3	If the environmental authority holder can provide evidence through monitoring that the limits defined in Table D1 – Noise limits and Table D2 – Airblast overpressure limits, are not being exceeded then the holder is not in breach of condition D1. Monitoring must include: a) $L_{A, max adj, T}$ b) relevant background sound level c) the level and frequency of occurrence of impulsive or tonal noise d) atmospheric conditions including wind speed and direction e) location, date and time of recording.	Agreed to by applicant. Model mining condition for monitoring requirements. Conditions linked to a request by the administering authority in conjunction with condition (new) A8. Intent of condition remains the same.																						
NA	Delete	D4	If monitoring indicates exceedance of the limits in Tables D1 and D2, then the environmental authority holder must: a) address the complaint including the use of appropriate dispute resolution if required b) immediately implement noise abatement measures so that emissions of noise from the activity do not result in further environmental nuisance.	Agreed to by applicant. Limits are not to be exceeded. Abatement measures to be included in the EA holder's compliance response (in accordance with new condition number A12) if an exceedance is recorded.																						
NA	Delete	D5	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's <i>Noise Measurement Manual</i> .	Agreed to by applicant. Requirements stipulated in administering authorities request as per (new) A8 and footnote 1 of table C1 – Noise Limits.																						
NA	Delete	D6	Subject to conditions D7 and D8, vibration from the mining activity must not cause an environmental nuisance, at any sensitive place.	Agreed to by applicant. Limits set in (new) condition C2 and Table C2 (new) will ensure intent of this condition will be met as limits are																						

				expected to prevent environmental harm (including nuisance).
NA	Delete	D7	When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous or 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 14 days to the administering authority following completion of monitoring.	Agreed to by applicant. Addressed by (new) A8.
NA	Delete	D9	If monitoring indicates exceedance of the limits in Table D3, 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.	Agreed to by applicant. Limits are not to be exceeded. Abatement measures to be included in the compliance notification (in accordance with new condition number A12).
NA	Deleted	D10	Every explosive blast for the mining activity shall be designed by a competent person to achieve the criteria in Tables D2 and D3.	Agreed to by applicant. Limits specified to be met, not how. Explosives handling not administered by the EP Act.
NA	Deleted	D11	All relevant information pertaining to the design of every explosive blast for the mining activity in relation to the criteria specified in Tables D2 and D3 shall be kept in written and diagrammatic form.	
D1	No change, condition number only (previously W1)			
D2	The release of contaminants to waters must only occur from the release points specified in Table D1 – Contaminated water release points, sources and receiving waters	W2	Unless otherwise permitted under the conditions of this environmental authority, the release of mine affected water to waters must only occur from the release points specified in <i>Table F1 – Mine affected water release points, sources and receiving waters</i> and depicted in <i>Figure 1 – East End sample location points</i> attached to this environmental authority	Agreed to by applicant. Condition specifies the authorised location of the release point for compliance and monitoring purposes. The wording "Unless otherwise permitted under the conditions of this authority" removed as all other authorised releases are conditioned also. "Mine affected water" changed to "contaminants/contaminated waters" throughout amended schedule D to provide clarity that the identified expected contaminants may be released from the release points (in accordance with the conditions of the EA). Contaminants are specified in the schedules of the EP Regs and specific contaminants expected to be produced from the activity are identified within the conditions with limits applied.
NA	Deleted	W3	The release of mine affected water to internal water management infrastructure installed and operated in accordance with a water management plan that complies with condition W20 is permitted.	Agreed to by applicant. Water management on site addressed by condition (new) D16 that requires a water management plan. Movement of water internal to the mining operations are not required to be conditioned, only releases

Table D1– Contaminated water release points, sources and receiving waters					Table W1 – Mine affected water release points							to the environment from these structures. Agreed to by applicant. Table W1 (now D1) amended to allow definition of release point versus release point monitoring point for improved accuracy and enforceability. Water sources minor amendments to wording to more accurately reflect contaminant water sources. Weir 6 selected due to mine pit water being pumped to this water structure and then passively flows across land/through drainage lines in to Weir 1. Weir 1 also receives flows from other sources and therefore may not always reflect the quality of water being released from the mining activity. Volumes of water released from site are also measured as they enter Weir 6 and therefore the quality characteristics should also be regulated at this location to be more reflective of the mine releases. The other water sources that enter Weir 1 are not expected to be impacted by the mining activities. The other release points (E and F) have been moved to the Land schedule of the EA (new Table E2) as the applicant has advised that these structures are sediment ponds that overflow to land only. The only contaminants of concern that are expected to be released from these ponds is sediment (and potentially pH altered and salinity elevated water). Limits on pH and EC are imposed on releases to land from these locations and sediments are not expected to have a detrimental impact on land. The REMP requirement includes the creeks that drain the catchments which the	
	Release point^[1] (RP)	Location (GDA94)		Water source^[1]		Receiving waters description	Release point (RP)	Latitude (decimal degree, GDA94)	Longitude (decimal degree, GDA94)	Mine affected water source and location	Monitoring frequency		Receiving waters description
	A	- 23.879876	150.9624459				East End mining operations discharging at Weir 1.	East End Creek	Monitoring point A	292,538	7,357,579		Mine affected waters from East End mining operations discharging at Weir 1 to East End Creek
	1	- 23.878007	150.963352	East End mining operations discharging at Weir 6.		East End Creek	Monitoring point E	291,050	7,357,445	Mine affected waters from East End mining operations clay dumps discharging at the spillway from the settlement pond associated with the clay dumps	pH, EC Turbidity within 24 hours of release events beginning		Jacobs Creek
	[1] Locations depicted in Figure 2 – Release point and surface water monitoring locations.					Monitoring point F	292,964	7,356,830	Mine affected waters from East End mining operations discharging at the spillway from the settlement pond at the end of southern diversion drain	pH, EC Turbidity within 24 hours of release events beginning	Larcom Creek		
* MGA94, Zone 56.													

										therefore any impacts that may result from unauthorised releases from these points will be identified and the department can respond. Monitoring frequency included in (new) Table D2 and (new) Table E2.	
D3	The release of contaminants to waters in accordance with condition D2 must be monitored: (a) at the release points specified in Table D1 - Contaminated water release points, sources and receiving waters as depicted in Figure 2 – Release points and surface water monitoring locations ; and (b) at the monitoring frequencies specified in Table D2 – Contaminant release limits ; and (c) for the quality characteristics identified in Table D2 – Contaminant release limits .									Agreed to by applicant. The condition sets the monitoring requirements for releases of contaminants to waters.	
D4	The release of contaminants to waters in accordance with condition D2 must not exceed the release limits stated in Table D2 – Contaminant release limits when measured at the release points specified in Table D1 – Contaminated water release points, sources and receiving waters for each quality characteristic.				W4	The release of mine affected water to waters in accordance with condition W2 must not exceed the release limits stated in <i>Table W2 – Mine affected water release limits</i> and <i>Table W3 – Mine affected water release limits (Weir 1 >6ML/day)</i> when measured at the monitoring points specified in <i>Table W1 – Mine affected water release points</i> for each quality characteristic.				Agreed to by applicant. Condition has same intent. Reference to mine affected water removed. The condition specifies the quality of the contaminants permitted to be released to the environment following the assessment of the regulatory considerations for the proposed amendment and restricts the type and concentration of contaminants that can be released	
Table D2 – Contaminant release limits	Quality characteristic	Release limit ^[2]	Monitoring frequency		Table W2 – Mine affected water release limits	Release point	Parameter	Units	Minimum	Maximum	Agreed to by applicant. The condition specifies the quality of the contaminants permitted to be released to the environment and the monitoring requirements for releases following the assessment of the regulatory considerations for the proposed amendment. The monitoring frequency increases as the release volumes increase. This is a result of a greater salinity load on the receiving environment as the pumping volumes increase and therefore there is an increased risk of the releases impacting on the WQO's of the receiving environment. The turbidity limit has been revised down to ensure releases meet the WQO's of the receiving environment. The footnote for turbidity enables releases of water with a higher turbidity during high flows in the receiving
	EC (micro siemens per centimetre, µs/cm)	5,000	Daily during a release greater than 6 mega litres per day. Monthly for all other releases.			Monitoring Point A <=6ML/day	Electrical conductivity	µS/cm	-	4,700	
	pH (pH units)	6.5 (minimum)				Monitoring Point F	pH	pH units	6.5	8.5	
		8.5 (maximum)					Turbidity	NTU	-	150	
	Turbidity (NTU)	20 ^[1]				Monitoring Point E					
^[1] If turbidity at [the upstream monitoring point (Monitoring Point C)] is greater than Release Point A then no exceedance is to be recorded ^[2] Release limits apply at Release Point 1 from [INSERT DATE 12 MONTHS FROM DATE OF ISSUE].											

										environment (thus increasing the run-off and sediment within the receiving environment/ upstream). The EA contains a condition for erosion and sediment control requirements for managing sediment from on site. Points E and F moved to Land schedule as per previous comments above in relation to these release points. Footnote included for the application of release limits to Release point 1 do not come in to effect for 12 months to provide the applicant with a transition period for the new release point.
D5	The release of contaminants to waters in accordance with condition D2 must only take place during periods of natural flow in the Larcom Creek.	Table W3 – Mine affected water release limits (Weir 1 >6ML/day)	Receiving water	Release point	Gauging station	Receiving water flow recording frequency	Receiving water flow criteria for discharge flow rate at Monitoring Point C (m³/sec)	Maximum release rate from Weir 1 Monitoring Point A (ML/day)	EC release limits Weir 1 Monitoring Point A (µS/cm)	Agreed to by applicant. Condition has been amended to be outcome focussed. To ensure WQO are being achieved as a result of releases to the environment, it is considered necessary that there is natural flow in the receiving environment. The receiving environment limits will also need to be met. Larcom Creek generally has natural flow. This is expected to provide the applicant with the operational flexibility to manage the water ingress in to the pit while still ensuring the receiving environment is protected.
			Larcom Creek	Monitoring Point A	Monitoring Point C (based on calculations derived from Monitoring Point D)	Daily	No flow	14.1	2,000	
							>=0.24	30	2,500	
							No flow	11.3	2,500	
							>=0.35	30	3,000	
							No flow	9.4	3,000	
							>=0.45	30	3,500	
							No flow	8.1	3,500	
D6	No change. Condition number updated (previously W6).	W6								
D7	The rate and daily quantity of water released from the release points specified in Table D1 – Contaminated water release points, sources and receiving waters must be measured and recorded	W5	The holder must determine and record stream flows at the locations and flow recording frequency specified in <i>Table W3 – Mine affected water release limits (Weir 1 >6ML/day)</i> .							Agreed to by applicant. Intent of condition remains the same. Condition amended to reflect removal of Table W3 and update reference to release points table. The monitoring condition is necessary and desirable for monitoring the quantity of the releases.
D8	The environmental authority holder must determine and record stream flows in the receiving environment at the upstream reference monitoring point specified in Table D3 – Receiving waters monitoring sites.	NA	New condition							Agreed to by applicant. Condition is required to determine compliance with condition (new) D5 and: for monitoring the characteristics of the receiving environment:

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	[2] Upstream location must be outside of any influence from the releases from RP A TBD To be determined and provided to the administering authority by [insert date within 3 months from date of issue]																																			
D12	Receiving waters measured from Monitoring Point D specified in Table D3 – Receiving waters monitoring sites must not exceed the corresponding Limit A specified in Table D4 – Water quality objectives for receiving waters on any five consecutive sampling occasions.						Agreed to by applicant. Requirement to meet water quality limits within the receiving environment have been included and are expected to restrict the concentration of contaminants that can be released in order to protect the environmental values, and meet quality objectives and the management intent under the EPP (Water) Curtis Island, Calliope River and Boyne River Basins Environmental Values and Water Quality Objectives. Multiple consecutive exceedances are permitted as the limits in Table D4 are percentiles of water quality data and therefore a single exceedance is statistically likely for a percentage of the data. Consecutive exceedances are considered statistically very improbable of occurring as natural variation and therefore are considered indicative of an impact or potential impact from the activity.																													
D13	Receiving waters measured from Monitoring Point D specified in Table D3 – Receiving waters monitoring sites must not exceed the corresponding Limit B specified in Table D4 – Water quality objectives for receiving waters on any three consecutive sampling occasions.																																			
Table D4 – Water quality objectives for receiving waters	<table><thead><tr><th>Quality characteristic</th><th>Water quality limit A</th><th>Water quality limit B</th></tr></thead><tbody><tr><td rowspan="2">pH (pH units)</td><td>NA</td><td>6.5 (minimum) ^[1]</td></tr><tr><td>NA</td><td>8.0 (maximum) ^[1]</td></tr><tr><td>Electrical conductivity (micro siemens per centimetre, µS/cm)</td><td>1,416 ^[2]</td><td>2,002 ^[3]</td></tr><tr><td>Turbidity (NTU) ^[4]</td><td>4.2 ^[1]</td><td>28.6 ^[3]</td></tr></tbody></table> <div><div>[1] Local water guideline values for protection of aquatic ecosystems for lowland fresh waters as per Table 2F of <i>Environmental Protection (Water) Policy 2009 Curtis Island, Calliope River and Boyne River Basins Environmental Values and Water Quality Objectives</i>, published in November 2014..</div><div>[2] Local water guideline values (75th percentile) for protection of aquatic ecosystems for Central Calliope as per Table 14 of <i>Environmental Protection (Water) Policy 2009 Curtis Island, Calliope River and Boyne River Basins Environmental Values and Water Quality Objectives</i>, published in November 2014</div><div>[3] 95th percentile of Monitoring Point C. Interim limit until [12 months from date of issue] after which Monitoring Point G will apply.</div><div>[4] If turbidity at Monitoring Point C is greater than Monitoring Point D then no exceedance is to be recorded</div></div>	Quality characteristic	Water quality limit A	Water quality limit B	pH (pH units)	NA	6.5 (minimum) ^[1]	NA	8.0 (maximum) ^[1]	Electrical conductivity (micro siemens per centimetre, µS/cm)	1,416 ^[2]	2,002 ^[3]	Turbidity (NTU) ^[4]	4.2 ^[1]	28.6 ^[3]	Table W5 – Receiving waters contaminant trigger levels	<table><thead><tr><th rowspan="2">Quality characteristic</th><th rowspan="2">Trigger level</th><th colspan="2">Monitoring frequency</th></tr><tr><th>Release volumes <=6ML/day</th><th>Release volumes >6ML/day</th></tr></thead><tbody><tr><td>pH</td><td>6.5 – 8.5</td><td>Quarterly</td><td>Daily</td></tr><tr><td>Electrical conductivity (µS/cm)</td><td>5,000</td><td>Quarterly</td><td>Daily</td></tr><tr><td>Turbidity (NTU)</td><td>Not more than 110% of upstream (Monitoring Point C)</td><td>Quarterly</td><td>Daily</td></tr></tbody></table>	Quality characteristic	Trigger level	Monitoring frequency		Release volumes <=6ML/day	Release volumes >6ML/day	pH	6.5 – 8.5	Quarterly	Daily	Electrical conductivity (µS/cm)	5,000	Quarterly	Daily	Turbidity (NTU)	Not more than 110% of upstream (Monitoring Point C)	Quarterly	Daily	Water quality limits have been included within the receiving environment that are expected to protect environmental values and meet the management intent under the EPP (Water) Curtis Island, Calliope River and Boyne River Basins Environmental Values and Water Quality Objectives. Map WQ1311 and the WQO’s nominate Larcom creek as lowland fresh waters with a level of protection of moderately disturbed. Turbidity footnote takes in to consideration any upstream increases in turbidity as a result of increased rainfall and flows.
Quality characteristic	Water quality limit A	Water quality limit B																																		
pH (pH units)	NA	6.5 (minimum) ^[1]																																		
	NA	8.0 (maximum) ^[1]																																		
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Turbidity (NTU)	Not more than 110% of upstream (Monitoring Point C)	Quarterly	Daily																																	

NA	Deleted	W12	<p>If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in <i>Table W5 – Receiving waters contaminant trigger levels</i> during a release event the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:</p> <ol style="list-style-type: none"> 1. where the downstream result complies with the trigger level(s) in Table W5 then no action is to be taken; or 2. where the downstream results do not comply with the trigger level(s) in Table W5 complete an investigation into the potential for environmental harm and provide a written report to the administering authority in the next annual return, outlining: <ul style="list-style-type: none"> i) details of the investigations carried out; and ii) actions taken to prevent environmental harm. <p>Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with W12(2) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.</p>	Agreed to by applicant. Condition no longer required as the limits set in Table D4 take in to consideration the upstream/background environment.
NA	Deleted	W13	All determinations of water quality and biological monitoring must be performed by an appropriately qualified person.	Deleted. Addressed by A7 (new).
D14	<p>By <+ 3MONTHS FROM DATE OF ISSUE>, the environmental authority holder must develop and implement a Receiving Environment Monitoring Program (REMP) in accordance with the <i>Receiving Environment Monitoring program guideline for use with environmentally relevant activities under the Environmental Protection Act 1994 (ESR/2016/2399)</i>, to monitor, identify and describe any adverse impacts to surface water environmental values, quality and flows; and groundwater due to the mining activity. This must include monitoring the effects of the mine on the receiving environment periodically and while contaminants are being discharged from the site.</p> <p>For the purposes of the REMP, the receiving environment includes the waters of:</p> <ul style="list-style-type: none"> • Larcom Creek; • East End Creek; • Machine Creek; • Jacobs Creek; • Scrub Creek; • Shultz Lagoon; and • Groundwater. 	W14	<p>The environmental authority holder must develop and implement a Receiving Environment Monitoring Program (REMP) to monitor, identify and describe any adverse impacts to surface water environmental values, quality and flows due to the authorised mining activity. This must include monitoring the effects of the mine on the receiving environment periodically (under natural flow conditions) and while mine affected water is being discharged from the site.</p> <p>For the purposes of the REMP, the receiving environment is the waters of Larcom Creek and connected or surrounding waterways within 5 km downstream of the release. The REMP should encompass any sensitive receiving waters or environmental values downstream of the authorised mining activity that will potentially be directly affected by an authorised release of mine affected water.</p>	Agreed to by applicant. Machine Ck is not affected by releases however groundwater extraction impacts may occur at Machine Ck and therefore it is included in the scope of the REMP. Larcom, East End creeks and Shultz Lagoon are all directly within the mine water release pathway. Jacobs Ck is included due to it being the creek system that drains the catchment that includes the sediment catchment ponds that release to land. Jacobs Ck enters Scrub Ck as well as flows within Scrub Ck may be impacted by the proposed amendment (i.e. pit expansion) as identified in the groundwater modelling report. Groundwater included as there are potential surface water interactions identified within the groundwater modelling report.
NA	Deleted	W15	A REMP Design Document that addresses the requirements of the REMP must be prepared and made available to the administering authority upon request.	Requirement covered by (new) D14 i.e. within the REMP guideline.
D15	A report outlining the findings of the REMP, including all monitoring results and interpretations must be prepared biennially and submitted to the administering authority on request. This must include as a minimum an assessment of background reference water quality, the condition of downstream water quality compared against water quality objectives, the suitability of current discharge limits to protect downstream environmental values; and changes in groundwater quality.	W16	A report outlining the findings of the REMP, including all monitoring results and interpretations must be prepared every 5 years and made available on request to the administering authority. This must include an assessment of background reference water quality, the condition of downstream water quality compared against water quality objectives, and the suitability of current discharge limits to protect downstream environmental values.	Agreed to by applicant. Intent of condition remains the same however reporting frequency increased to biennial reporting to enable a more responsive assessment of the effectiveness of the EA conditions and management practices/mitigation measures.
NA	Deleted	W17	Mine affected water may be piped or trucked or transferred by some other means that does not contravene the conditions of this environmental authority and deposited into artificial water storage structures, such as farm dams or tanks, or used directly at	Agreed to by applicant. No longer aligns with the end of waste

			properties owned by the environmental authority holder or a third party (with the consent of the third party).	arrangements within the Waste legislation.						
NA	Delete	W18	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: a) the date on which the sample was taken; b) the time at which the sample was taken; c) the monitoring point at which the sample was taken; d) the measured or estimated daily quantity of mine affected water released from Weir 1; e) the release flow rate at the time of sampling for Weir 1; f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority; and g) water quality monitoring data must be provided to the administering authority in the specified electronic format upon request.	Agreed to by applicant. Requirements have been incorporated in to the specific conditions in relation to water monitoring and recording addressed by A9 (new)						
NA	Deleted	W19	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 the Department of Natural Resources and Mines (or its successor) <i>Guideline - Activities in a Watercourse, Lake or Spring Associated with Mining Activities</i> .	Agreed to by applicant. Requirements are not administered by EHP. Covered by riverine protection permit requirements and exemptions.						
D16	A <i>Water Management Plan</i> must be developed by an appropriately qualified person and implemented by the environmental authority holder.	W20	A Water Management Plan must be developed by an appropriately qualified person and implemented within three months of the date of issue of the environmental authority. The water management plan will be prepared in accordance with the administering authority's <i>Guideline – Preparation of water management plans for mining activities</i> or any updates that become available from time to time.	Agreed to by applicant. Outcome focussed condition. Intent of condition remains the same. Delivery date removed as it has already passed. Guideline referred to is no longer current.						
D17	An <i>Erosion and Sediment Control Plan (ESCP)</i> must be developed by an appropriately qualified person and implemented by the environmental authority holder to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.	W21	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.	Agreed to by applicant. Minor rewording, intent remains the same.						
NA	Deleted.	W22	Stormwater, other than mine affected water, is permitted to be released to waters from: i) erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by condition W21; and ii) water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with condition W20, for the purpose of ensuring water does not become mine affected water.	Agreed to by applicant. All releases of water that has potentially been impacted by mining operations have been specified within the EA conditions (e.g. new E9).						
D18	The extraction of groundwater must not cause environmental harm to the terrestrial groundwater dependant ecosystems specified in Table D5 – Identified Terrestrial Groundwater Dependant Ecosystems or any groundwater dependant ecosystems outside of the zone of influence as depicted in Figure 4: Groundwater Zone of Influence .	NA	New Condition	Agreed to by applicant. The conditions are necessary and desirable and are expected to protect identified EV's in the project area. As per the assessment report, the modelling and supporting information provided with the application indicated that the zone of influence from current mining operations is not expected to significantly vary as a result of the pit extension. GDE's listed in Table D5 have been identified in the project area are located at the boundary of the modelled zone of influence						
Table D5 – Identified Terrestrial Groundwater Dependant Ecosystems	<table><tr><td>GDE</td><td>Latitude</td><td>Longitude</td></tr><tr><td>Terrestrial GDE^[1]</td><td>-23.85373</td><td>150.96963</td></tr></table> ^[1] http://www.bom.gov.au/water/groundwater/gde/map.shtml	GDE	Latitude	Longitude	Terrestrial GDE ^[1]	-23.85373	150.96963			
GDE	Latitude	Longitude								
Terrestrial GDE ^[1]	-23.85373	150.96963								

D19	By +3 months from issue of EA, a <i>Groundwater Monitoring and Management Program</i> must be developed, documented and implemented by an appropriately qualified person.	W33	A groundwater monitoring and management program must be developed by an appropriately qualified person to monitor groundwater in accordance with condition W34.	Agreed to by applicant. This condition is included for the EA holder to develop and implement a monitoring and management system for the managing the identified risks to groundwater quality and levels.
D20	The <i>Groundwater Monitoring and Management Program</i> required by condition D19 must: a) identify potential sources of contamination to groundwater from the activity; and b) ensure that all potential groundwater impacts due to the activity are identified, monitored and mitigated; and c) document sampling and monitoring methodology; and d) ensure that adequate groundwater monitoring and data analysis is undertaken to achieve the following objectives: a. detect any impacts to groundwater levels due to the activity; b. detect any impacts to groundwater quality due to the activity; c. determine compliance with condition D18; and d. determine trends in groundwater quality; and e) include an appropriate quality assurance and quality control program; and f) include validation of the calibrated transient groundwater model; and g) include a review process to identify improvements to the program that includes addressing any comments provided by the administering authority.	W36 W37	The annual review must at a minimum include an assessment of the adequacy of the monitoring program and recommend actions to ensure that any groundwater impacts are effectively managed. In relation to the annual review, the holder must: a) Upon receipt of the annual review, consider and review its recommendations as soon as practicable Within twenty (20) business days of receipt of the annual review, notify the administering authority in writing of actions being taken to address any recommendations from the review.	Agreed to by applicant. This condition is included to specify the minimum requirements of the system required by condition (new) D19 for managing the identified risks to groundwater quality and levels and to analyse monitoring data against an objective/ standard. The condition takes in to consideration that the applicant has developed a transient groundwater model and includes validation of this model.
NA	Delete	W38	A copy of the annual review [<i>sic as required by W37</i>] must be provided to the administering authority upon request.	Agreed to by applicant. Annual provision of report no longer considered necessary. The department may request review as per condition (new) A6 if it's required.
D21	The <i>Groundwater Monitoring and Management Program</i> required by condition D19 must be reviewed by 30 June each year by an appropriately qualified person to determine if it continues to meet the requirements stated in condition D20 .	W35	The groundwater monitoring and management program required by condition W34 must be reviewed by 30 June each year by an appropriately qualified person.	Agreed to by applicant. Intent of condition remains the same. Clarifies the outcome of what the review should achieve and is expected to ensure the system for managing the identified risks to groundwater quality and levels continues to be effective.
NA	Deleted	W32	The holder of this environmental authority must not release contaminants to groundwater.	Agreed to by applicant. All releases to waters (waters includes groundwater) addressed by (new) condition D1.
D22	Groundwater quality and standing water level must be monitored: (a) at the monitoring points specified in Table D6 - Groundwater monitoring locations and frequency ; and (b) at the monitoring frequencies specified in Table D6 - Groundwater monitoring locations and frequency ; and (c) for the quality characteristics identified in Table D7 - Groundwater quality limits for the aquifer in which the bore is located.	W34	Groundwater must be monitored at the locations and frequencies as defined in the Groundwater Monitoring and Management Program.	Agreed to by applicant. Condition has a similar intent however specifies the frequency and parameters for monitoring groundwater to ensure the modelled and identified impacts are verified due to the potential impact on the groundwater receiving environment.

Table D6 – Groundwater monitoring locations and frequency	Monitoring Point ^[1]	Location (GDA)		Surface RL (m) ^[2]	Screened interval RL (m)	Monitoring Frequency	
		Latitude	Longitude			Standing Water Level	Groundwater Quality
	Limestone bores – Groundwater Quality within zone of influence						
	DHH96-29	- 23.872779	150.974047	36	20-36	Quarterly	
	DHH96-30	- 23.874528	150.971084	20	15-27		
	DHH96-7	- 23.900377	150.965663	50	8-50		
	DHH96-20	- 23.868636	150.953004	45	33-45		
	DHH96-25	- 23.871112	150.969518	41.3	28-41.3		
	Volcaniclastic bores – Groundwater Quality within zone of influence						
	DHH96-39	- 23.888283	150.959185	tba	tba	Quarterly	
	DHH96-14	- 23.879067	150.941706	50	20-50		
	Subterranean Fauna Monitoring Bores						
	DHH96-41	- 23.891462	150.972234	36.67	TBA	Quarterly	
	DHH96-33	TBA	TBA	TBA	TBA		
	EE Mine Forest Bore SE	- 23.874363	150.967503	tba	tba		
	DHH96-30	- 23.874528	150.971084	20	15-27		
	DHH96-29	- 23.872779	150.974047	36	20-36		
	DHH96-7	- 23.900377	150.965663	50	8-50		
	DHH97-6	- 23.884431	150.969634	tba	tba		
	B100	- 23.847465	150.951668	54.8	TBA		
Compliance Bores - Drawdown/GDE Monitoring Bores							
Limestone Compliance bores – Groundwater Levels and Quality							
DHH96-5	- 23.852414	150.981157	44.77	10-50	Quarterly		

NA	New condition	<p>Agreed to by applicant. Condition specifies the locations for monitoring of groundwater. Locations for drawdown water level monitoring have been determined by the applicant for ensuring the groundwater drawdown impacts are as per modelled and include monitoring for impacts to GDE's. Locations for monitoring potential impacts to subterranean fauna have been determined from the application supporting materials provided by the applicant. Groundwater quality locations were also proposed by the applicant however the assessment of these locations and the associated water quality data by the Department raised some concerns with the distance from the mine site and the potential for external influences (e.g. pumping and other land uses such as grazing) to affect the quality within these bores. The department has determined the quality monitoring locations that are closer to the mine site and therefore less likely to be externally influenced.</p>
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<div>Published on DES Disclosure Log RTI Act 2009</div>	RC11-09	- 23.798363	150.906876	30.487	24-36	Quarterly.			
	Shultz lagoon 1	TBA	TBA	TBA	TBA				
	Shultz lagoon 2	TBA	TBA	TBA	TBA				
	Shultz lagoon 3	TBA	TBA	TBA	TBA				
	Volcaniclastic Compliance bores – Groundwater Levels and Quality								
	DHH96-1 ^[3]	- 23.858826	150.974402	51.65	30-50	Quarterly			
	DHH96-2 ^[3]	- 23.855962	150.969479	51.85	0-20				
	DHH96-10	-23.87511	150.992037	41.51	27-50				
	DHH97-1A	- 23.858226	150.924669	67.662	10.3-19				
	RC11-07	- 23.832943	150.895126	71.183	30-100				
	RC11-13	- 23.918103	150.996597	33.417	12-31				
	RC11-15	- 23.896588	151.010276	44.975	18-76				
	RC11-17	- 23.819972	150.96685	70.27	50-60				
	RC11-19	-23.88478	150.931748	63.13	70-100				
	RC11-20	- 23.901544	150.936513	62.887	16-32				
	RC11-21	- 23.925181	150.924282	62.596	14-32				
	Southern New Bore 1	TBA	TBA	TBA	TBA	Quarterly.			
	Southern New Bore 2	TBA	TBA	TBA	TBA				
	<div><div>[1]</div><div>[2]</div><div>[3]</div><div>TBA</div></div> <div>Locations depicted in Figure 3 –Groundwater monitoring locations. RL must be measured to the nearest 5cm from the top of the bore casing. Terrestrial GDE specific monitoring bore To be advised to the administering authority by [INSERT DATE 6 MONTHS FROM EFFECTIVE DATE]</div>								
	D23	The activity must not cause a deterioration of groundwater quality.					NA	New condition	Agreed to by applicant. The application supporting information did not specify that an impact to groundwater quality within the zone of influence was being applied for. The applicant has raised that drawdown of groundwater has the potential to affect

					the groundwater quality however did not provide sufficient information that determined the level of expected/potential impact. A review of groundwater data within the zone of influence did not identify any significant deterioration of groundwater quality and therefore this condition is necessary and desirable to protect the environmental values of groundwater within the project area.	
D24	Groundwater measured from any compliance bore specified in Table D6 - Groundwater monitoring locations and frequency must not exceed the corresponding Limit A specified in Table D7 – Groundwater quality limits on any five consecutive sampling occasions.			NA	New condition	Agreed to by applicant. Condition requires the limits for the receiving groundwater environment set in Table D7 to be met and are expected to ensure no degradation to the groundwater quality outside of the modelled zone of influence. The limits have been determined by percentiles of individual bore water quality data and consecutive exceedances have been included to ensure any statistically valid singular exceedance does not trigger a non-compliance. The probability of multiple exceedances is very low and therefore is considered to be an actual change in groundwater quality.
D25	Groundwater measured from any compliance bore specified in Table D6 - Groundwater monitoring locations and frequency must not exceed the corresponding Limit B specified in Table D7 – Groundwater quality limits on any three consecutive sampling occasions.			NA	New condition	
D26	If groundwater measured from any compliance bore specified in Table D6 - Groundwater monitoring locations and frequency exceeds the corresponding Limit B specified in Table D7 – Groundwater quality limits on any one sampling occasion the environmental authority holder must resample the groundwater within the compliance bore for all exceeding parameters within ten business days of receipt of results.			NA	New condition	Agreed to by applicant. The resample requirement is included as a protocol relevant to groundwater monitoring to reduce the likelihood that the initial exceedance of the limit was as a result of a sampling or laboratory error. Limit B resample is only required as this limit is the 95 th percentile and therefore is considered a higher risk of environmental impact if it were to be exceeded.
Table D7 – Groundwater quality limits	Monitoring Point	Quality Characteristic		NA	New condition	Agreed to by applicant. Limits are included in the EA to protect the EV's of groundwater. The condition sets limits for the receiving groundwater environment to be met
		pH (pH units)	Electrical Conductivity (micro siemens per centimetre (µs/cm))			

		Range	Maximum	Maximum	NA			
			Limit A	Limit B				
	DHH96-5	6.5 (minimum) 8.0 (maximum)	21,912	24,151	For interpretation purposes only.			and are expected to ensure no degradation to the groundwater quality outside of the modelled zone of influence. The limits have been determined by percentiles of historical, individual bore water quality data. New bores or bores yet to be constructed as nominated by the applicant have TBA limits. TBA timeframe to enable adequate data collection considering quarterly sampling. Quality characteristics determined from the expected impacts from the activity (i.e. pit dewatering/groundwater extraction).
	RC11-09		5,830	5,920				
	Shultz lagoon 1		TBA	TBA				
	Shultz lagoon 2		TBA	TBA				
	Shultz lagoon 3		TBA	TBA				
	DHH96-1 ^[3]		26,800	33,683				
	DHH96-2 ^[3]		9,880	13,413				
	DHH96-10		4,784	4,817				
	DHH97-1A		284	311				
	RC11-07		5,840	6,740				
	RC11-13		11,394	11,406				
	RC11-15		9,090	9,997				
	RC11-17		10,000	11,117				
	RC11-19		3,970	4,120				
	RC11-20		3,630	4,372				
	RC11-21		1,660	1,787				
	Southern New Bore 1		TBA	TBA				
	Southern New Bore 2		TBA	TBA				
<div><div>[1] Major ions include calcium, magnesium, sodium, potassium, bicarbonate, chloride, and sulphate.</div><div>[2] Limit A has been determined from the 80th percentile of the specific bore historical groundwater quality data up to March 2017.</div><div>[3] Limit B has been determined from the 95th percentile of the specific bore historical groundwater quality data up to March 2017.</div><div>TBA To be advised to the administering authority by [INSERT DATE 26 MONTHS FROM EFFECTIVE DATE]</div></div>								
D27	If the standing water level of groundwater measured at any compliance bore specified in Table D6 - Groundwater monitoring locations and frequency is less than any of the corresponding trigger levels specified in Table D8 – Groundwater monitoring trigger levels , the environmental authority holder must: <div>a) notify the administering authority within 24 hours; and</div> <div>b) conduct an investigation into the cause within ten business days; and</div> <div>c) if the mining activities are identified as a potential cause or contributor, take immediate action to ensure compliance with condition D18 of this environmental authority.</div>					NA	New condition	Agreed to by applicant. Condition is included to ensure that any changes to groundwater levels outside of previously observed minimum levels identified through review of historical water level data are investigated to determine if they are from the mining activity and if so, if they are having an effect on GDE's.
Table D8 – Drawdown/GDE Groundwater	Monitoring Point	Unit	Trigger Levels ^[1]	Limit Type	NA	New condition	Agreed to by applicant. Trigger levels determined by including a tolerance of 0.5 metres below the 5 th percentile of individual	

monitoring trigger levels	Limestone Compliance bores – Groundwater Levels					
	DHH96-5	SWL m RL	38.2	Minimum		
	RC11-09		24.6			
	Shultz lagoon 1		TBA			
	Shultz lagoon 2		TBA			
	Shultz lagoon 3		TBA			
	Volcaniclastic Compliance bores – Groundwater Levels					
	DHH96-1 [2]	SWL m RL	44.1	Minimum		
	DHH96-2 [2]		44.8			
	DHH96-10		34.5			
	DHH97-1A		60.4			
	RC11-07		55.3			
	RC11-13		24.2			
	RC11-15		43.6			
	RC11-17		49.8			
	RC11-19		56.0			
	RC11-20		48.7			
	RC11-21		52.7			
	Southern New Bore 1		TBA			
	Southern New Bore 2		TBA			
	[1] 5th percentile minus 0.5 metre [2] Terrestrial GDE specific monitoring bore TBA To be advised to the administering authority by [INSERT DATE 26 MONTHS FROM EFFECTIVE DATE]					
D28	Groundwater monitoring bores must be : (a) constructed and maintained in a manner that ensures the integrity of the bores to obtain representative groundwater samples from the target aquifer; and (b) constructed, maintained and decommissioned in a manner that a. prevents contaminants entering the groundwater; and b. that maintains the hydrogeological environment within the aquifer.			W39	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 results.	Agreed to by applicant. Intent of condition remains the same. Rewording clarifies requirements for bore construction to ensure the monitoring requirements specified within the EA are appropriately carried out on representative environmental samples. Condition also ensures the risk of impacts to groundwater from bore construction and decommissioning are managed.
D29	A bore drill log must be kept for each groundwater monitoring bore which includes: (a) bore identification reference and geographic coordinate location; (b) specific construction information including but not limited to depth of bore, depth and length of casing, depth and length of screening and bore sealing details; (c) standing groundwater level and water quality parameters including physical parameters and results of laboratory analysis for the possible trigger parameters;			NA	New condition	Agreed to by applicant. This condition is necessary to ensure the monitoring bores established to monitor for impacts to the environment are adequate

	(d) lithological data and stratigraphic interpretation by an appropriately qualified person to identify important features associated with groundwater monitoring; and (e) target aquifer formation of the bore.						and targeting the appropriate aquifers as well as to enable interpretation of any future potential impacts to the receiving groundwater environment.
D30	Monitoring and sampling must be carried out in accordance with written procedures and must address the requirements of the latest version of the following documents unless otherwise approved by the administering authority: (a) for waters and aquatic environments, the Queensland Government's Monitoring and Sampling Manual 2009 – Environmental Protection (Water) Policy 2009 (b) for groundwater, Groundwater Sampling and Analysis – A Field Guide (2009:27 GeoCat#6890.1) and Australian Standard AS/NZS 5667.11:1998 Water Quality – Sampling – Guidance on sampling of groundwaters; (c) for subterranean aquatic fauna, the Guideline for the Environmental Assessment of Subterranean Aquatic Fauna.				NA	New condition	Agreed to by applicant. This condition sets the protocols for the monitoring requirements stipulated in the EA.
D31	Prior to the commencement of pit development on ML80156, a <i>Subterranean Fauna Monitoring and Management Program</i> must be developed by an appropriately qualified person and implemented by the environmental authority holder.				NA	New condition	Agreed to by applicant. A program for monitoring and management of subterranean fauna is required to ensure the environmental values of groundwater are protected. Due to the limited scientific knowledge of subterranean fauna and that they have been detected within the project area, a program is required to establish appropriate monitoring and management practices for the specific project area.
D32	The <i>Subterranean Fauna Monitoring and Management Program</i> required by condition D31 must include adequate monitoring of subterranean species of stygofauna and troglafauna in all groundwaters potentially impacted by the mining activities and must achieve the following objectives: a) Identify and describe subterranean fauna species present; b) In addition to condition D32(a) , accurately describe and determine the distribution of the unique taxa found at bore locations EEUN2 and DHH96-41; c) Assess and describe predicted impacts to subterranean fauna identified; d) Recommend impact mitigation and minimisation measures for the fauna identified; e) Monitor and record the effects of the mining activity on the subterranean fauna species; f) Recommend actions, including timeframes for implementation, to ensure that any impacts to subterranean fauna not authorised under this environmental authority, are prevented.				NA	New condition	Agreed to by applicant. This condition sets the protocol and minimum requirements for the program required by (new) D31 to ensure the environmental values of groundwater are protected.
D33	If the standing water level of groundwater measured at any compliance bore specified in Table D6 - Groundwater monitoring locations and frequency is less than any of the corresponding trigger levels specified in Table D9 – Subterranean fauna trigger levels , the environmental authority holder must: a) notify the administering authority within 24 hours; and b) review the <i>Subterranean Fauna Monitoring and Management Program</i> required by condition D31 within ten business days, particularly the requirements of condition D32 c), d), e), and f) .						Agreed to by applicant. Trigger levels considered necessary and desirable to ensure that lack of current scientific knowledge on GDE's does not result in the activities causing an impact on groundwater levels and subsequently GDE's (i.e. stygofauna). Any further lowering of groundwater levels from historical levels will require a review
Table D9 – Subterranean fauna trigger levels RTI 20-078	Monitoring Point	Unit	Trigger Levels ^[1]	Limit Type	File A		

	DHH96-30	SWL m RL	24.1	Minimum			of the program required by condition (new) D32. Trigger levels determined by including a tolerance of 0.5 metres below the 5 th percentile of individual bore water level historical data to accommodate for seasonal changes that may occur.
	DHH97-6		25.1				
	EE Mine Forest Bore SE		20.4				
	DHH96-29		31.2				
	DHH96-41		29.9				
	DHH96-7		32.7				
	DHH96-33		TBA				
	DHH96-39		42.7				
	B100		28.7				
	[1] 5th percentile minus 0.5 metre						
E1	No change, condition numbering only (previously W24)				W24		
E2	The release of treated sewage effluent to land must not exceed the release limits stated in Table E1 – Contaminant release limits to land.				W23	The only contaminant permitted to be released to land is treated sewage effluent in compliance with the release limits state in <i>Table W6 – Contaminant release limits to land</i> .	Agreed to by applicant. Condition intent remains the same. Set release quality for release to land.
Table E1 – Contaminant release limits to land	No change, table reference only (previously Table W6)				Table W6 – Contaminant release limits to land		No change.
E3	The application of treated effluent to land must be carried out in a manner such that: a) Vegetation is not damaged; b) There is no surface ponding of effluent; and c) There is no run-off of effluent.				W25	The application of treated effluent to land must be carried out in a manner such that: a) vegetation is not damaged; b) there is no surface ponding of effluent; and c) the run-off of effluent beyond the irrigation area is avoided.	Agreed to by applicant. Condition intent remains the same.
E4	No change. Condition numbering only (previously W26)				W26		
E5	All sewage effluent released to land must be monitored at the frequency and for the parameters specified in Table E1 – Contaminant release limits to land.				W27	All sewage effluent released to land must be monitored at the frequency and for the parameters specified in <i>Table W6 – Contaminant release limits to land</i> .	Agreed to by applicant. Condition intent remains the same. Reference to table amendment only
E6	The monthly volume of effluent released to land must be measured and recorded.				W28	The monthly recording of a flow rate must be measured and records kept of the flow rates of effluent released.	Agreed to by applicant. Intent of condition remains the same. Monitors volume of releases to land.
E7	No change. Condition numbering only (previously W29)				W29		
E8	No change. Condition numbering only (previously W30)				W30		
	Deleted.				W31	Treated sewage effluent must only be supplied to another person or organisation that has a written plan detailing how the user of the treated sewage effluent will comply with their general environmental duty under section 319 of the Act whilst using the treated sewage effluent.	Agreed to by applicant. CA advised that they do not provide to a third party and condition is not required. Would need to be covered under the End of Waste framework if required still.
E9	The release of contaminated water to land, other than treated sewage effluent in accordance with the conditions of this environmental authority, must only occur from the release points specified in Table E2 – Contaminant release to land locations .				NA	New condition but incorporates (previous) W4.	Agreed to by applicant. Conditions incorporate current release authorisations from (previous) condition W4 and Tables W1 and W2. EC aligns with other release limits. Conditions require monitoring for the quality and characteristics of the release and specify the way in which
Table E2 – Contaminant release to land locations	Release point ^[1] (RP)	Location (GDA94)		Contaminated water source ^[1]	(previous) Table W1 and W2.		
		Latitude	Longitude				
	E	-23.880282	150.949141	East End mining operations, including clay dumps and haul roads, discharging at the spillway from the western sediment pond E.			

	F	-23.886780	150.966126	East End mining operations, including clay dumps and haul roads, discharging at the spillway from southern sediment pond F.			contaminants may be released.
	[1] Locations depicted in Figure 2 – Release point and surface water monitoring locations.						
E10	The release of contaminants to lands in accordance with condition E9 must not exceed the release limits for each quality characteristic stated in Table E3 – Contaminant release to land limits when measured at the release points specified in Table E2 – Contaminant release to land locations.					New condition but incorporates (previous) W4.	
Table E3 – Contaminant release to land limits	Quality characteristic	Release limit	Monitoring frequency				
	EC (micro Siemens per centimetre, µs/cm)	5,000	During a release (the sample must be taken within 24 hours of commencement of release but before cessation of the release)				
	pH (pH units)	6.5 (minimum)					
		8.5 (maximum)					
E11	The release of contaminants to land in accordance with condition E9 must be monitored at the release points specified in Table E2 – Contaminant release to land locations and depicted in Figure 2 – Release points and surface water monitoring locations , for each quality characteristic and at the monitoring frequency specified in Table E3 – Contaminant release to land limits .						
E12	The release of contaminants to land in accordance with condition E9 must be carried out in a manner such that: a) Drainage to groundwater and subsurface flows of contaminants to surface waters are prevented; and b) Surface pondage and run-off of contaminants is prevented; and c) Degradation of soil structure is minimised; and d) Soil sodicity and the build-up of heavy metals and metalloids in the soil and subsoil is minimised.						Agreed to by applicant. Condition stipulates the way in which releases of contaminants to land are permitted to be released to protect the environmental values of land and to prevent the releases from entering the surface water and groundwater receiving environments.
E13	Updated table reference and condition number only. Previously Table F1 and Condition F1				F1		Agreed to by applicant. Updated table reference and condition number only.
Table E4 – Rehabilitation requirements	Update to table reference (previously Table F1) and merged dot points from final row that were not linked to any Mine Domain in to the final rehabilitation report requirements under 'Mine workings above RL40' and 'Active spoil dumps' to provide clarity.				Table F1 – Rehabilitation requirements		Administrative change.
E14	No change, condition reference only (previously F2)				F2		
NA					F3	Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.	Agreed to by applicant. Covered by surrender process of the EP Act and Contaminated land sections of EP Act.
NA					F4	Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use under condition F1.	Agreed to by applicant. Covered by progressive certification section of the EP Act and Contaminated land sections of EP Act.
E15	The environmental authority holder must minimise the potential for contamination of land by hazardous contaminants.				F5	Minimise the potential for contamination of land by hazardous contaminants.	Agreed to by applicant. Intent of condition is the same.
Definitions – New					Definitions - Current		Definitions have been included or removed to reflect the terminology required to be defined within the EA. Applicant has agreed to definitions.
Affected person is someone whose drinking water can potentially be impacted as a result of discharges from a dam or their life can be put at risk due to dwellings or workplaces being in the path of a dam break flood.					NA		Definition from: Structures which are dams or levees constructed as part of

		environmentally relevant activities
Deleted	ANZECC 2000 means the <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> , published in the year 2000 by the Australian and New Zealand Environment Conservation Council (ANZECC) and the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ).	Not referred to in conditions.
Certification means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by a condition of this environmental authority, and specifically in relation to structures, means the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Dams (ESR/2016/1933)</i> , including design plans, 'as constructed' drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy Certification by RPEQs (ID: 1.4 (2A)).	Certification, certifying or certified by an appropriately qualified and experienced person in relation to a design plan or an annual report regarding dams/structures, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit at any time: <ul style="list-style-type: none"> a) exactly what is being certified and the precise nature of that certification; b) the relevant legislative, regulatory and technical criteria on which the certification has been based; c) the relevant data and facts on which the certification has been, the source of that material, and the efforts made to obtain all relevant data and facts; and d) the reasoning on which the certification has been based using the relevant data and facts, and the relevant criteria. 	Definition from: Structures which are dams or levees constructed as part of environmentally relevant activities
Certification, certifying or certified have a corresponding meaning as 'certification'.	NA	
Consequence in relation to a structure as defined, means the potential for environmental harm resulting from the collapse or failure of the structure to perform its primary purpose of containing, diverting or controlling flowable substances.	NA	
Consequence category means a category, either low, significant or high, into which a dam is assessed as a result of the application of tables and other criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> .	NA	
Deleted	Contaminant has the meaning in Section 11 of the <i>Environmental Protection Act 1994</i> and for waters, includes any prescribed contaminants listed under Schedule 9 of the <i>Environmental Protection Regulations 2008</i> .	Contaminant defined in EP Regs.
Dam a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.	Dam a land-based structure or a void that is designed to contain, divert or control flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works. However; a dam does <i>not</i> mean a fabricated or manufactured tank or container designed to a recognised standard, <i>nor</i> does a dam mean a land-based structure where that structure is designed to an Australian Standard. In case there is any doubt, a levee (dyke or bund) is a dam, but (for example) a bund designed for spill containment to AS1940 is <i>not</i> a dam.	Definition from: Structures which are dams or levees constructed as part of environmentally relevant activities
dB (Linear) Peak is the maximum reading in decibels (dB) in Linear scale (Z) or unfiltered; obtained using the "P" time – weighting characteristic as specified in AS 1259.1 – 1990 with all frequency weighted networks inoperative.	NA	New definition included to define terminology in Noise Schedule.
Design plan is a document setting out how all identified consequence scenarios are addressed in the planned design and operation of a regulated structure.		
Design storage allowance or DSA means an available volume, estimated in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> published by the administering authority, must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an annual exceedance probability (AEP) specified in that Manual.	Design storage allowance or DSA means an available volume, estimated in accordance with the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> published by the administering authority, must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an annual exceedance probability (AEP) specified in that manual.	Updated to reference current manual.
Deterioration of groundwater quality means a measurable increase (or decrease for pH) to the concentration of a contaminant identified in groundwater monitoring data.	NA	New definition to define deterioration as per condition (new) D23
Delete	Disturbance of land includes: <ul style="list-style-type: none"> a) compacting, removing, covering, exposing or stockpiling of earth b) removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion; c) carrying out mining within a watercourse, waterway, wetland or lake; d) the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls; e) temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after the mining activity has ceased; or f) releasing of contaminants into the soil, or underlying geological strata. However, the following areas are not included when calculating areas of 'disturbance': <ul style="list-style-type: none"> a) areas off lease (e.g. roads or tracks which provide access to the mining lease); 	Levels of disturbance authorised in EA. Disturbance not required to be defined. Some exclusions from current disturbance definition do not align with legislation.

	<ul style="list-style-type: none"> 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 tenure. 	
Emergency action plan means documentation forming part of the operational plan held by the environmental authority holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam owners to annually update contact details.	Emergency action plan means documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam owners to annually update contact details that are part of the plan, and to comprehensively review the plan at least every five years.	
Existing structure means a structure that prior to <INSERT EA ISSUE DATE> meets any or both of the following, a structure: a) With a design that is in accordance with Version 5.00 (dated 29 March 2016) of the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> and that is considerably in progress; That is under considerable construction or that is constructed.		
Deleted	Environmental authority an environmental authority granted in relation to an environmentally relevant activity under the <i>Environmental Protection Act 1994</i> .	Defined in legislation.
Extreme storm storage means a storm storage allowance determined in accordance with the criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Dams (ESR/2016/1933)</i> published by the administering authority.		
Flowable substance means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.	Flowable substance matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.	
Deleted	<p>Hazard in relation to a dam as defined, means the potential for environmental harm resulting from the collapse or failure of the dam to perform its primary purpose of containing, diverting or controlling flowable substances.</p> <p>Hazard category a category, either low significant or high, into which a dam is assessed as a result of the application of tables and other criteria in 'Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)', prepared by the administering authority, as amended from time to time.</p>	Defined in Manual
Hydraulic performance means the capacity of a regulated dam to contain or safely pass flowable substances based on the design criteria specified for the relevant consequence category in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Dams (ESR/2016/1933)</i> .	Hydraulic performance means the capacity of a regulated dam to contain or safely pass flowable substances based on a probability (AEP) of performance failure specified for the relevant hazard category in the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> .	
Landholder's active groundwater bore means bores that are able to continue to provide a reasonable yield of water in terms of quantity for the authorised purpose or use. This term does not include monitoring bores owned by the administering authority of the <i>Water Act 2000</i> .		
Low consequence structure means any structure that is not a high or significant consequence category as assessed using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Dams (ESR/2016/1933)</i> .	Low hazard dam means any dam that is not a high or significant hazard category as assessed using the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> .	
Mandatory reporting level or MRL means a warning and reporting level determined in accordance with the criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Dams (ESR/2016/1933)</i> published by the administering authority.	Mandatory reporting level or MRL means a warning and reporting level determined in accordance with the criteria in the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> published by the administering authority.	
Manual means the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> published by the administering authority, as amended from time to time.		
Deleted	<p>Mine affected water the following types of water:</p> <ul style="list-style-type: none"> 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 <i>Environmental Protection Regulation 2008</i> 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 	

	<p>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;</p> <p>iv) groundwater which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated;</p> <p>v) groundwater from the mine's dewatering activities;</p> <p>vi) a mix of mine affected water (under any of paragraphs i)-v)) and other water.</p> <p>Does not include:</p> <p>a) 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:</p> <p>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;</p> <p>or</p> <p>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:</p> <p>a. areas that have been capped and have monitoring data demonstrating hazardous material adequately contained within the site;</p> <p>b. 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</p> <p>c. both.</p>	
Operational plan includes:	Operational plan for a dam means a document that amongst other things sets out procedures and criteria to be used for operating a dam during a particular time period. The operational plan as defined herein may form part of a plan of operations or plan otherwise required in legislation.	
a) normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance);		
b) contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure.		
Pit development means the act or process of making an excavation or cut of the ground for the purpose of extracting ore.		
Receiving waters means waters of the receiving environment as defined in the <i>Environmental Protection Act 1994</i> , including but not limited to the waters of East End Creek, Shultz Lagoon, Larcom Creek, Machine Creek, Scrub Creek and Jacobs Creek.	Receiving waters the waters into which this environmental authority authorises releases of mine affected water.	
<p>Register of regulated structures includes:</p> <p>a) date of entry in the register;</p> <p>b) name of the structure, its purpose and intended/actual contents;</p> <p>c) the consequence category of the structure as assessed using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i>;</p> <p>d) dates, names and reference for the design plan plus dates, names and reference numbers of all document/s lodged as part of a design plan for the structure;</p> <p>e) name and qualifications of the suitably qualified and experienced person who certified the design plan and 'as constructed' drawings;</p> <p>f) for the regulated dam, other than in relation to any levees:</p> <p>i. the dimensions (metres) and surface area (hectares) of the dam measured at the footprint of the dam;</p> <p>ii. coordinates (latitude and longitude in GDA94) within five (5) metres at any point from the outside of the dam including its storage area;</p> <p>iii. dam crest volume (megalitres);</p> <p>iv. spillway crest level (metres AHD);</p> <p>v. maximum operating level (metres AHD);</p> <p>vi. storage rating table of stored volume versus level (metres AHD);</p> <p>vii. design storage allowance (megalitres) and associated level of the dam (metres AHD);</p> <p>viii. mandatory reporting level (metres AHD);</p> <p>g) For a regulated levee:</p> <p>i. The crest length of the levee (metres) measured along the centreline of the levee;</p> <p>ii. Location Coordinates (latitude and longitude in GDA94), and chainage distances (metres), of each end of the levee, and of each point along the crest of the levee which marks a change in direction;</p> <p>iii. Levee crest level (metres AHD), also at each end of the levee, and at each point along the crest of the levee which marks a change in direction;</p> <p>iv. Maximum height of the levee (metres), from the crest level to the adjacent toe (inside or outside) of the embankment, and the location and chainage of this maximum height;</p> <p>v. The crest width of the levee (metres);</p>		

vi. The Annual Exceedence Probability of the design flood for operation of the levee; vii. The freeboard (metres) between design flood level and the crest level of the levee; h) the design plan title and reference relevant to the dam; i) the date construction was certified as compliant with the design plan; j) the name and details of the suitably qualified and experienced person who certified that the constructed structure was compliant with the design plan; k) details of the composition and construction of any liner; l) the system for the detection of any leakage through the floor and sides of the dam; m) dates when the regulated structure underwent an annual inspection for structural and operational adequacy, and to ascertain the available storage volume for 1 November for any year; n) dates when recommendations and actions arising from the annual inspection were provided to the administering authority; o) dam water quality as obtained from any monitoring required under this authority as at 1 November of each year.		
Regulated structure means any structure in the significant or high consequence category as assessed by using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Dams (ESR/2016/1933)</i> published by the administering authority. A regulated structure does not include a fabricated or manufactured tank or container, designed and constructed to an Australian Standard that deals with strength and structural integrity of that tank or container.	Regulated dam means any dam in the significant or high hazard category as assessed using the <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams (EM635)</i> published by the administering authority.	
Delete - The definition of 'sensitive place' and 'commercial place' no longer within EPP Noise. Reference is to sensitive receptor and EA conditions reflect this terminology.	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 <i>Nature Conservation Act 1992</i> , the <i>Marine Parks Act 1992</i> or a World Heritage Area; or f) a public park or gardens.	
sensitive receptor means a sensitive receptor under the Environmental Protection (Noise) Policy 2008.		New definition to align with legislation changes.
Subterranean Fauna means fauna which live their entire lives (obligate) below the surface of the earth consisting of air-breathing troglofauna or aquatic groundwater fauna.		
Subterranean wetland for the purpose of this environmental authority, means aquifer and cave groundwater dependent ecosystems that are dependent on the subterranean presence of groundwater.		
Transient calibrated model means a calibrated groundwater model as described in the <i>Australian Groundwater Modelling Guidelines</i> published in 2012 by the Australian Government National Water Commission. The model must include time-varying inputs, calculate and save output at various times throughout the duration of the model run, and must be capable of predicting time-varying groundwater responses.		
Valid complaint means all complaints unless considered by the administering authority to be frivolous, vexatious or based on mistaken belief.		
Deleted. Defined in the EP Act/Regs	Watercourse has the same meaning given in the <i>Water Act 2000</i> .	
Deleted. Not referred to in conditions.	Water year means the 12-month period from 1 July to 30 June.	
Wetland for the purpose of this environmental authority, means: a) Areas shown on the Map of referable wetlands which is a document approved by the chief executive on 4 November 2011 and published by the administering authority, as amended from time to time by the chief executive under section 144D of the <i>Environmental Protection Regulation 2008</i> ; and b) Areas defined under the Queensland Wetlands Program as permanent or periodic / intermittent inundation, 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 six (6) metres, and possess one or more of the following attributes: a. At least periodically, the land supports plants or animals that are adapted to and dependent on living in wet conditions for at least part of their life cycle; or b. The substratum is predominantly undrained soils that are saturated, flooded or ponded long enough to develop anaerobic conditions in the upper layers, or; c. The substratum is not soil and is saturated with water, or covered by water at some time. The term wetland includes riverine, lacustrine, estuarine, marine and palustrine wetlands; and it does not include a Great Artesian Basin Spring or a subterranean wetland that is a cave or aquifer.		
Deleted. Used in full throughout EA	µs/cm – micro Siemens per centimetre.	
Deleted. Not referenced in conditions	The Act means the Environmental Protection Act 1994.	
Release event surface water discharge from water storages or contaminated areas on the licensed place	Release event surface water discharge from mine affected water storages or contaminated areas on the licensed place.	

Records include breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this authority.		
Deleted. Not referenced in conditions	NATA National Association of Testing Authorities, Australia	
Deleted. Used in full throughout conditions	m means metres.	
Release event surface water discharge from water storages or contaminated areas on the mining tenements detailed in this environmental authority.	Release event surface water discharge from water storages or contaminated areas on the licensed place.	
Deleted. Not referenced in conditions. Definition for release event updated to incorporate this definition.	Licensed place the mining activities carried out at the mining tenements detailed in this environmental authority.	
Deleted. Self-explanatory.	Environmental authority holder means the holder of this environmental authority	
	Figure 1 – East End sample locations points	

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EIS AR recommended conditions

		Included/Equivalent condition
	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.	A1
	In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with Figure 1A Project Infrastructure Layout – Mine Area and Figure 1B Project Infrastructure Layout – Support Infrastructure (To be provided).	A2
	Except where specified otherwise in another condition of this authority, all monitoring records or reports required by this environmental authority must be kept for a period of not less than five years.	A6
	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.	A5
	The amount of financial assurance must be reviewed by the holder of this environmental authority when a plan of operations is amended or replaced or the authority is amended	A5
	The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the Standard for Risk Management (ISO31000:2009), or the latest edition of an Australian standard for risk management, to the extent relevant to environmental management, within 3 months from date of issue of this environmental authority.	A10
	The holder of this environmental authority must notify the administering authority by written notification within 24 hours, after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority.	A11
	Within 10 business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following: ☐ results and interpretation of any samples taken and analysed ☐ outcomes of actions taken at the time to prevent or minimise unlawful environmental harm ☐ proposed actions to prevent a recurrence of the emergency or incident.	A12
	The holder of this environmental authority must record all environmental complaints received about the mining activities including: ☐ name, address and contact number for of the complainant ☐ time and date of complaint ☐ reasons for the complaint ☐ investigations undertaken ☐ conclusions formed ☐ actions taken to resolve the complaint ☐ any abatement measures implemented ☐ person responsible for resolving the complaint.	A13
	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.	A8
	The holder of this environmental authority must: ☐ within one year of the commencement of this authority, obtain from an appropriately qualified person a report on compliance with the conditions of this environmental authority ☐ obtain further such reports at regular intervals not exceeding three years from the completion of the report referred to above ☐ provide each report to the administering authority within 90 days of its completion.	A14
	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: ☐ 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, or where the amendment or change relates specifically to regulated structures referred to in condition I34, the time specified in that condition, ☐ 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.	Specific standards, policies or guidelines referred to within conditions.
	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 exceedences of the following levels when measured at any sensitive or commercial place: Dust deposition of 120 milligrams per square metre per day, averaged over 1 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. A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM ₁₀) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, for no more than five exceedences recorded each year, when monitored in accordance with the most recent version of either: <ul style="list-style-type: none"> 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 Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM10 low volume sampler – Gravimetric method. 	B1 & B2
	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.	A15
C2	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.	Burning not required. Removed.

	The holder of this environmental authority must ensure that noise generated by the mining activities does not cause the criteria in Table D1 – Noise limits to be exceeded at a sensitive place or commercial place.	C1
	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 D2 – Blasting noise limits to be exceeded at a sensitive place or commercial place.	C2
	Noise monitoring and recording must include the following descriptor characteristics and matters: <ul style="list-style-type: none"> • LAN,T (where N equals the statistical levels of 1, 10 and 90 and T = 15 mins) • background noise LA90 • the level and frequency of occurrence of impulsive or tonal noise and any adjustment and penalties to statistical levels • atmospheric conditions including temperature, relative humidity and wind speed and directions • effects due to any extraneous factors such as traffic noise • location, date and time of monitoring • if the complaint concerns low frequency noise, Max LpLIN,T and one third octave band measurements in dB(LIN) for centre frequencies in the 10–200 Hz range. 	C3
E1	The holder of this environmental authority must not release contaminants to groundwater.	D1
E2	A groundwater monitoring and management program must be developed by an appropriately qualified person to monitor groundwater in accordance with condition E1.	D19
E3	The monitoring and management program required by condition E2 must be capable of determining impacts to groundwater levels and must include adequate monitoring adjacent Schultz Lagoon, Larcom Creek and Scrub Creek.	D20
E4	groundwater must be monitored at the locations and frequencies as defined in the Groundwater Monitoring and Management Program.	Table D6
E5	The groundwater monitoring and management program required by condition E3 must be reviewed by 30 June each year by an appropriately qualified person.	D21
E6	The annual review must as a minimum include an assessment of the adequacy of the monitoring program and recommend actions to ensure that any groundwater impacts are effectively managed. In relation to the annual review, the holder must: <ul style="list-style-type: none"> • upon receipt of the annual review, implement any recommendations from the review as soon • as practicable • within twenty (20) business days of receipt of the annual review, notify the administering authority in writing, of actions being taken to address any recommendations from the review, including any changes necessary to the groundwater monitoring and management program. 	D21
E7	A copy of the annual review must be provided to the administering authority upon request.	A6
E9 (E8 not in AR)	Within two years of the commencement of this authority replace the existing groundwater model with a calibrated transient model to be used in the groundwater monitoring and management program.	Calibrated transient model developed. Review requirement included in D20.
E10	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 results.	D28
F1	Contaminants that will, or have the potential to cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.	D1
F2	Unless otherwise permitted under the conditions of this environmental authority, the release of mine affected water to waters must only occur from the release points and at the monitoring frequency specified in Table F1 – Mine affected water release points, sources and receiving waters and depicted in Figure X – East End sample location points attached to this environmental authority (To be provided).	D2
F3	The release of mine affected water to internal water management infrastructure installed and operated in accordance with a water management plan that complies with condition F24 is permitted.	Not included. D16 requires water management plan. Discharges to internal water management infrastructure not regulated.
Table F1 – Mine affected water release points, sources and receiving waters		Table D1 and Table E2
F4	The release of mine affected water to waters in accordance with condition F2 must not exceed the release limits stated in Table F2 – Mine affected water release limits and Table F3 – Mine Affected Water Release Limits (Weir 1 >6ML/day) when measured at the monitoring points specified in Table F1 – Mine affected water release points, sources and receiving waters for each quality characteristic.	D4 and E10
Table F2 – Mine-affected water release limits		Tables D2 and E1
F5	The release of mine affected water to waters from the release points must be monitored at the locations specified in Table F1 – Mine affected water release points, sources and receiving waters for each quality characteristic and at the frequency specified in Table F3 – Mine affected water release limits (Weir 1 >6ML/day) . Note: the administering authority will take into consideration any extenuating circumstances prior to determining an appropriate enforcement response in the event condition F5 is contravened due to a temporary lack of safe or practical access. The administering authority expects the environmental authority holder to take all reasonable and practicable measures to maintain safe and practical access to designated monitoring locations.	D3, D11, and E11
F6	Mine affected water release events The holder must ensure a stream flow gauging station/s is installed, operated and maintained to determine and record stream flows at the locations and flow recording frequency specified in Table F3 – Mine affected water release during flow events .	D7
F7	Notwithstanding any other condition of this environmental authority, the release of mine affected water to waters in accordance with condition F2 must only take place during periods of natural flow in accordance with the receiving water flow criteria for discharge specified in Table F3 – Mine affected water release limits (Weir 1 >6ML/day) for the release point(s) specified in Table F1 – Mine affected water release points, sources and receiving waters.	D5. Flow rates not specified in EA only criteria for water quality to be met in receiving environment.
F8	The release of mine affected water to waters in accordance with condition F2 must not exceed the Maximum Release Rate (for all combined release point flows) for each receiving water flow criterion for discharge specified in Table F3 – Mine affected water release during flow events when measured at the monitoring points specified in Table F1 – Mine affected water release points, sources and receiving waters .	Release rates no longer specified. Receiving environment objectives defined in EA. Increased monitoring

		requirements when discharge rates are higher.
	Table F3 – Mine affected water release limits (Weir 1 >6ML/day)	Table D2
F9	The daily quantity of mine-affected water released from each release point must be measured and recorded.	D5
F10	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.	D6
F11	<p>Notification of release event</p> <p>The environmental authority holder must notify the administering authority as soon as practicable and no later than 24 hours after commencing to release mine affected water to the receiving environment. Notification must include the submission of written advice to the administering authority of the following information:</p> <ul style="list-style-type: none"> release commencement date/time details regarding the compliance of the release with the conditions of Water of this environmental authority (that is, contaminant limits, natural flow, discharge volume) release point(s) release rate release salinity receiving water(s) including the natural flow rate. <p>Note: Notification to the administering authority must be addressed to the Manager and Project Manager of the local administering authority via email.</p>	A11
F12	<p>The environmental authority holder must notify the administering authority as soon as practicable and nominally no later than 24 hours after cessation of a release event of the cessation of a release notified under condition F11 and within 28 days provide the following information in writing:</p> <ul style="list-style-type: none"> release cessation date/time natural flow volume in receiving water volume of water released details regarding the compliance of the release with the conditions of Water of this environmental authority (i.e. contaminant limits, natural flow, discharge volume) all in-situ water quality monitoring results any other matters pertinent to the water release event. <p>Note: Successive or intermittent releases occurring within 24 hours of the cessation of any individual release can be considered part of a single release event and do not require individual notification for the purpose of compliance with conditions F11 and F12, provided the relevant details of the release are included within the notification provided in accordance with conditions F11 and F12.</p>	A11 and A12
F13	<p>Notification of release event exceedence</p> <p>If the release limits defined in Table F2 – Mine affected water release limits and Table F3 Mine affected water release limits (Weir 1 >6ML/day) are exceeded, the holder of the environmental authority must notify the administering authority within 24 hours of receiving the results.</p>	A11
F14	<p>The environmental authority holder must, within 28 days of a release that is not compliant with the conditions of this environmental authority, provide a report to the administering authority detailing:</p> <ul style="list-style-type: none"> the reason for the release the location of the release the total volume of the release and which (if any) part of this volume was non-compliant the total duration of the release and which (if any) part of this period was non-compliant all water quality monitoring results (including all laboratory analyses) identification of any environmental harm as a result of the non-compliance all calculations any other matters pertinent to the water release event. 	A9 and A12
	Table F4 – Receiving waters contaminant trigger levels	Table D4
	Table F5 – Receiving water upstream background sites and downstream monitoring points	Table D3
F15	The quality of the receiving waters must be monitored at the locations specified in Table F5 – Receiving waters upstream background sites and downstream monitoring points for each quality characteristic and at the monitoring frequency stated in Table F4 – Receiving waters contaminant trigger levels .	D11
F16	<p>If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in Table F4 – Receiving waters contaminant trigger levels during a release event the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:</p> <p>(1) where the downstream result is the same or a lower value than the upstream for the quality characteristic then no action is to be taken, or</p> <p>(2) where the downstream results exceed the upstream results complete an investigation into the potential for environmental harm and provide a written report to the administering authority, outlining:</p> <p>i) details of the investigations carried out</p> <p>ii) actions taken to prevent environmental harm.</p> <p>Note: Where an exceedence of a trigger level has occurred and is being investigated in accordance with F16(2), no further reporting is required for subsequent trigger events for that quality characteristic.</p>	D12 and D13
F17	All determinations of water quality and biological monitoring must be performed by an appropriately qualified person.	A7
F18	<p>Receiving environment monitoring program (REMP)</p> <p>The environmental authority holder must develop and implement a Receiving Environment Monitoring Program (REMP) in accordance with the Receiving environment monitoring program guideline, For use with environmentally relevant activities under the <i>Environmental Protection Act 1994</i> (EHP, 2014)..</p>	D14
F19	A REMP design document that addresses the requirements of the REMP must be prepared and made available to the administering authority upon request	D14
F20	A report outlining the findings of the REMP, including all monitoring results and interpretations must be prepared every five years and made available on request to the administering authority. This must include an assessment of background reference water quality, the condition of downstream water quality compared against water quality objectives, and the suitability of current discharge limits to protect downstream environmental values.	D15
F21	Water reuse	Not included. No longer aligns with the end of waste

	Mine affected water may be piped or trucked or transferred by some other means that does not contravene the conditions of this environmental authority and deposited into artificial water storage structures, such as farm dams or tanks, or used directly at properties owned by the environmental authority holder or a third party (with the consent of the third party).	arrangements within the Waste legislation.
F22	Annual water monitoring reporting 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: <ul style="list-style-type: none"> the date on which the sample was taken the time at which the sample was taken the monitoring point at which the sample was taken the measured or estimated daily quantity of mine affected water released from all release points the release flow rate at the time of sampling for each release point the results of all monitoring and details of any exceedences of the conditions of this environmental authority water quality monitoring data must be provided to the administering authority in the specified electronic format upon request. 	A9 and A6
F23	Temporary interference with waterways Excavating, or placing fill in a watercourse, lake or spring necessary for and associated with mining operations must be undertaken in accordance with the Department of Natural Resources and Mines (or its successor) Guideline: The Riverine Protection and Permit Exemption.	Not included. Not administered under the EP Act.
F24	Water management plan A water management plan must be developed by an appropriately qualified person and implemented.	D16
F25	Stormwater and water sediment controls 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.	D17
F26	Stormwater, other than mine affected water, is permitted to be released to waters from: <ul style="list-style-type: none"> erosion and sediment control structures that are installed and operated in accordance with the erosion and sediment control plan required by condition F25 water management infrastructure that is installed and operated, in accordance with a water management plan that complies with condition F24, for the purpose of ensuring water does not become mine affected water. 	E9
G1	Sewage treatment The only contaminant permitted to be released to land is treated sewage effluent in compliance with the release limits stated in Table G1 – Contaminant release limits to land.	E1 and E2
Table G1 – Contaminant release limits to land		Table E1
G2	Treated sewage effluent may only be released to land in accordance with the conditions of this approval at the following locations: <ul style="list-style-type: none"> within the nominate area(s) identified in – East End sample locations; and other land for the purpose of dust suppression and/or fire-fighting. 	E1
G3	The application of treated effluent to land must be carried out in a manner such that: <ul style="list-style-type: none"> vegetation is not damaged there is no surface ponding of effluent there is no run-off of effluent. 	E3
G4	If areas irrigated with effluent are accessible to employees or the general public, prominent signage must be provided advising that effluent is present and care should be taken to avoid consuming or otherwise coming into unprotected contact with the effluent.	E4
G5	All sewage effluent released to land must be monitored at the frequency and for the parameters specified in Table G1 – Contaminant release limits to land.	E5
G6	The daily volume of effluent release to land must be measured and records kept of the volumes of effluent released.	E6
G7	When circumstances prevent the irrigation or beneficial reuse of treated sewage effluent such as during or following rain events, waters must be directed to wet weather storage or alternative measures must be taken to store/lawfully dispose of effluent.	E7
G8	A minimum area of 10m ² of land, excluding any necessary buffer zones, must be utilised for the irrigation and/or beneficial reuse of treated sewage effluent.	E8
G9	Treated sewage effluent must only be supplied to another person or organisation that has a written plan detailing how the user of the treated sewage effluent will comply with their general environmental duty under section 319 of the Act whilst using the treated sewage effluent.	Not included. As above
H1	Land disturbed by mining must be rehabilitated in accordance with Table H1 – Rehabilitation requirements.	E13
Table H1 – Rehabilitation requirements		Table E4
H2	Rehabilitation must commence progressively in accordance with the plan of operations.	E14
H3	After decommissioning, all significantly disturbed land caused by the carrying out of the environmentally relevant activity(ies) must be rehabilitated to meet the following final acceptance criteria: <ul style="list-style-type: none"> the landform is safe for humans and fauna the landform is stable with no subsidence or erosion gullies for at least three years any contaminated land (e.g. contaminated soils) is remediated and rehabilitated there is no ongoing contamination to waters (including groundwater) for land that is not being cultivated by the landholder: <ul style="list-style-type: none"> a groundcover, that is not a declared pest species is established and self-sustaining vegetation of similar species richness and species diversity to pre-selected analogue sites is established and self-sustaining. 	Not included as outcomes are specified in Table (new) E4.
H4	Contaminated land Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.	Not included. See above
H5	Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use under condition H1.	Not included. See above
H6	Minimise the potential for contamination of land by hazardous contaminants.	E16

I1	<p>Assessment of consequence category</p> <p>The consequence category of any structure must be assessed by a suitably qualified and experienced person in accordance with the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM365) at the following times:</p> <ul style="list-style-type: none"> ☐ prior to the design and construction of the structure, if it is not an existing structure; or ☐ if it is an existing structure, prior to the adoption of this schedule; and ☐ prior to any change in its purpose or the nature of its stored contents. 	A20 to A50
I2	A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence assessment for more than one structure.	
I3	Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).	
I4	Conditions I5 to I9 inclusive do not apply to existing structures.	
I5	All regulated structures must be designed by, and constructed under the supervision of, a suitably qualified and experienced person in accordance with the requirements of the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).	
I6	Construction of a regulated structure is prohibited unless the holder has submitted a consequence category assessment report and certification to the administering authority has been certified by a suitably qualified and experienced person for the design and design plan and the associated operating procedures in compliance with the relevant condition of this authority.	
I7	Certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan in the form set out in the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635), and must be recorded in the Regulated Dams/Levees register.	
I8	<p>Regulated structures must:</p> <ul style="list-style-type: none"> ☐ be designed and constructed in accordance with and conform to the requirements of the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635) ☐ be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of: <ul style="list-style-type: none"> o floodwaters from entering the regulated dam from any watercourse or drainage line o wall failure due to erosion by floodwaters arising from any watercourse or drainage line. ☐ have the floor and sides of the dam designed and constructed to prevent or minimise the passage of the wetting front and any entrained contaminants through either the floor or sides of the dam during the operational life of the dam and for any period of decommissioning and rehabilitation of the dam. 	
I9	<p>Certification by the suitably qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure, and state that:</p> <ul style="list-style-type: none"> ☐ the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure ☐ construction of the regulated structure is in accordance with the design plan. 	
I10	<p>Operation of a regulated structure, except for an existing structure, is prohibited unless:</p> <ul style="list-style-type: none"> ☐ the holder has submitted to the administering authority <ul style="list-style-type: none"> o one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with condition I3, and o a set of 'as constructed' drawings and specifications, and o certification of those 'as constructed drawings and specifications' in accordance with condition I3, and o where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, a copy of the certified system design plan, and o the requirements of this authority relating to the construction of the regulated structure have been met, and o the holder has entered the details required under this authority, into a Register of Regulated Dams, and o there is a current operational plan for the regulated structures. 	
I11	Each regulated structure must be maintained and operated, for the duration of its operational life until decommissioned and rehabilitated, in a manner that is consistent with the current operational plan and, if applicable, the current design plan and associated certified 'as constructed' drawings.	
I12	Conditions I13 to I16 inclusive only apply to regulated structures which have not been certified as low consequence category for 'failure to contain – overtopping'.	
I13	The mandatory reporting level (MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.	
I14	The holder must, as soon as practical and within 48 hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.	
I15	The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.	
I16	The holder must record any changes to the MRL in the Register of Regulated Structures.	
I17	The holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken prior to 1 July of each year.	
I18	By 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the DSA volume for the dam (or network of linked containment systems).	
I19	The holder must, as soon as possible and within 48 hours of becoming aware that the regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.	
I20	The holder must, immediately on becoming aware that a regulated dam) or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.	
I21	Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.	

I22	At each annual inspection, the condition and adequacy of all components of the regulated structure must be assessed and a suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and include recommended actions to ensure the integrity of the regulated structure.
I23	The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).
I24	The holder must: <ul style="list-style-type: none"> • within 20 business days of receipt of the annual inspection report, provide to the administering authority: <ul style="list-style-type: none"> ◦ the recommendations section of the annual inspection report, and ◦ if applicable, any actions being taken in response to those recommendations, and • if, following receipt of the recommendations and (if applicable) actions, the administering authority requests a full copy of the annual inspection report from the holder, provide this to the administering authority within 10 business days of receipt of the request.
I25	Transfer arrangements The holder must provide a copy of any reports, documentation and certifications prepared under this authority, including but not limited to any Register of Regulated Structures, consequence assessment, design plan and other supporting documentation, to a new holder on transfer of this activity.
I26	Decommissioning and rehabilitation Structures must not be abandoned but be either: <ul style="list-style-type: none"> • decommissioned and rehabilitated to achieve compliance with condition I27, or • be left in-situ for a beneficial use/s provided that: <ul style="list-style-type: none"> ◦ it no longer contains contaminants that will migrate into the environment, and ◦ it contains water of a quality that is demonstrated to be suitable for its intended beneficial use(s), and ◦ the administering authority, the holder of the environmental authority and the landholder agree in writing that the dam will be used by the landholder following the cessation of the environmentally relevant activity(ies).
I27	Register of Regulated Structures A Register of Regulated Structures must be established and maintained by the holder for each regulated structure.
I28	The holder must provisionally enter the required information in the Register of Regulated Structures when a design plan for a regulated structure is submitted to the administering authority.
I29	The holder must make a final entry of the required information in the Register of Regulated Structures once compliance with condition I10 has been achieved.
I30	The holder must ensure that the information contained in the Register of Regulated Structures is current and complete on any given day.
I31	All entries in the Register of Regulated Structures must be approved by the chief executive officer for the holder of this authority, or their delegate, as being accurate and correct.
I32	The holder must, at the same time as providing the annual return, supply to the administering authority a copy of the records contained in the Register of Regulated Structures, in the electronic format required by the administering authority.
I33	All existing structures that have not been assessed in accordance with either the manual or the former Manual for Assessing Hazard Categories and Hydraulic Performance of Dams must be assessed and certified in accordance with the manual within six months of amendment of the authority adopting this schedule.
I34	All existing structures must subsequently comply with the timetable for any further assessments in accordance with the manual specified in Table 1 Transitional requirements for existing structures , depending on the consequence category for each existing structure assessed in the most recent previous certification for that structure.
I35	Table 1 ceases to apply for a structure once any of the following events has occurred: <ul style="list-style-type: none"> • it has been brought into compliance with the hydraulic performance criteria applicable to the structure under the manual, or • it has been decommissioned, or • it has been certified as no longer being assessed as a regulated structure.
I36	Certification of the transitional assessment required by I34 and I35 as applicable must be provided to the administering authority within six months of amendment of the authority adopting this schedule.