Commodore Coal Mine
Plan of Operations
ML50151

1st Sep 2019 to 31st Aug 2024

Downer Mining

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Document Issue Approval

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1. Introduction

This Plan of Operations (PoO) covers the five year period from 1st Sep 2019 to 31st Aug 2021. It is prepared under the requirements of the *Environmental Protection Act 1994*, for Mining Lease (ML) 50151. The purpose of this PoO is to:

- Describe all mining activities that will take place at the Commodore Coal Mine during the term;
- Provide an action program for complying with the conditions of Environmental Authority EPML00841513;
- Describe a rehabilitation program for land disturbed or proposed to be disturbed during the term; and
- Calculate the estimated rehabilitation cost for the project during the term.

2. Term of the Plan of Operations

This PoO revision covers all environmental management and rehabilitation activities for the period from 1st September 2019 to 31st August 2024 and replaces all previous versions.

3. Project Description

3.1. Location

The Commodore Coal Mine is located approximately 10 km south of the rural township of Millmerran. Millmerran is located approximately 80 km south west of Toowoomba, Queensland.

3.2. Mining Tenure

The mining lease to which this PoO applies is ML50151. It was granted on 17 June 1999 and expires 30 June 2034. The principal mining lease holder is Queensland Power Company Limited. The mining lease is a total of 2,316 hectares in area.

3.3. Holder of the EA

The holder of the EA is the Millmerran Power Partners, a general partnership comprised of:

- Millmerran Investment Company i Pte Ltd
- Millmerran Investment Company ii Pte Ltd
- Millmerran Investment Company iii Pte Ltd
- Millmerran Investment Company iv Pte Ltd
- Millmerran Investment Company v Pte Ltd
- Millmerran Investment Company vi Pte Ltd
- Queensland Power (Australia) Pty Ltd
- Queensland Power Company Pty Limited

All mining activities at the Commodore Coal Mine are undertaken by Downer Mining.

3.4. Environmentally Relevant Activities

As part of the mining activities undertaken at Commodore Coal Mine, the following Environmentally Relevant Activities (ERAs), as defined by Schedule 2 of the *Environmental Protection Regulation 2008* will be undertaken:

8 Chemical storage

(1) Chemical storage (the *relevant activity*) consists of storing—

(a) 50t or more of chemicals of dangerous goods class 1 or class 2, division 2.3 in containers of at least 10m³; or

(b) 50t or more of chemicals of dangerous goods class 6, division 6.1 in containers capable of holding at least 900kg of the chemicals; or

(c) more than 500m3 of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3; or

(d) the following quantities of other chemicals in containers of at least 10m3—

(i) 200t or more, if they are solids or gases;

(ii) 200m³ or more, if they are liquids.

3.5. Mining Method

The Commodore coal deposit consists predominately of a single coal seam (the M seam) with a number of individual coal plies separated by thin parting bands. The M seam is generally 5.5 to 6.5 m thick, thinning towards the western and eastern sides of the deposit and subcrops to the north, south and east. The seam generally dips at less than 5º. The overburden thickness within the mining area ranges from 10-50 m, averaging around 23 m in depth. The upper 4 to 16 m of the overburden (depending on location), is generally clay and sandy clay, underlain by variably weathered mudstone and sandstone.

Mining of the Commodore Coal deposit utilises open cut methods, with both overburden removal and coal mining being undertaken by excavators and dump trucks. A fleet of Dozers are also utilised to uncover coal.

Operations are generally conducted for 20 hours per day, 5 days per week for coal mining and overburden removal. Weekend coverage is required for ash haulage from the power station back to the mine site for disposal. Coal mining occurs at the rate of approximately 3.5 million tonnes per annum. The overburden removal rate is approximately 12 to 14 million bank cubic metres (bcm) annually. The upper weathered overburden layer (typically 5 to 10m in thickness) is excavated via free digging (i.e. without being drilled and blasted). The lower fresh overburden layer requires drilling and blasting prior to excavation. Drilling and blasting the coal is not considered necessary at this stage. All coal is hauled by dump trucks to a Run-of-Mine (ROM) hopper for the power station overland conveyor, which is located to the south of the mine area.

The main features of the mineable reserve for the proposed five year period of mining from September 2019 to August 2024 are:

Run of Mine Coal Tonnage:	16.98 million tonnes
Ash:	35.0% Average
Overburden Volume:	75.24 million bcm
Strip Ratio:	Approximately 4.43 bcm/t

The mining equipment includes:

- 2 x 300t Hydraulic Excavator(Liebherr)
- 1 x 350t Hydraulic Excavator(Hitachi)
- 3 x 475 Komatsu Dozers
- 1 x D11 Cat Dozer
- 1 x WA900 loader
- 8 x CAT 789 trucks
- 2 x CAT 777 trucks
- 1 x 250t Hydraulic Excavator(RH120) (primarily allocated to creek diversion work)
- 7 x CAT 785 trucks (fleet primarily allocated to creek diversion work)

- 3 x 8.5 m³ Scraper (hired plant)
- 2 x D10 Track Dozers
- 1 x D9 Track Dozer
- 1 x CAT 773 watercart
- 1 x CAT 773 Service Cart
- 2 x Kenworth 17kL watercarts
- 1 x Atlas Copco DML Overburden Drill
- 2 x CAT16 Graders
- 1 x 68t excavator (Hitachi ZX690)
- 1 x 20t excavator (Cat320D)
- Various additional support equipment.

Mining and rehabilitation will be carried out by the mining contractor, Downer Mining for a contract period currently extending to 31 August 2024. The rehabilitation as of June 2019 is shown in APPENDIX B - Current Rehabilitation (June 2019).

The Financial Assurance for the projected mining operations and projected rehabilitation to the end of this PoO period are summarised in APPENDIX A – Financial Assurance Summary.

The mining schedule will follow the sequence as described below.

Topsoil stripping:
Suitable topsoil is stripped in advance of the mining excavation to a nominal depth of 300mm, to ensure sufficient rehabilitation cover of a minimum of 250mm is attained. The topsoil is either stockpiled in strategic locations for re-spreading at a later date, or directly placed on spoil dumps that have been suitably prepared at the final landform heights and slopes. Topsoil is generally stripped by scraper and sufficient topsoil is stockpiled for the future rehabilitation of various infrastructures across the site. Stockpiled topsoil is deep ripped and seeded as per requirements of Environmental Authority EPML00841513.

Overburden Stripping:
Overburden material is stripped, using an excavator and trucks, to a depth where drilling and blasting is then required. This “prestrip” material will, in most cases, form the top layer of the overburden dumps prior to topsoil placement. The drill and blast horizon is a predetermined height determined by material type, geotechnical and economic considerations. The drill and blast depth is in the range of 10-40 metres through the harder mudstone and sandstones. Blasting is designed to cast material to a profile suitable for the Komatsu carry dozers. The carry dozers push overburden into the previously mined strip and in most cases, uncover coal seams. The final wedge of overburden and parting bands to the coal seams is usually stripped by the excavator and trucks to expose full seams of coal ready for mining.

Coal Mining:
Access to the coal is via central ramps spaced approximately 400m apart and generally perpendicular to the pit. These ramps are also a common route for the haulage of overburden and partings to nearby dumps by excavator and truck as well as a route for ash trucks to return ash for burial.

The coal mining techniques vary depending on the seam structure and coal quality. As much waste material as is practical is cleaned from the top of coal prior to mining. Appropriate measures are taken to reduce coal loss and dilution. This is achieved by trimming the highwall of the previous strip before finishing mining in an area to reduce the amount of coal left in the subsequent low wall. A D10 is used to split the partings by an experienced operator to minimise

coal losses. In all pits, trenches are dug along the low wall to define the coal edge and minimise dilution from overburden material.

In-pit dump construction is a planned sequential operation to meet the required geotechnical and environmental parameters as defined, and is generally as follows:

Fresh rock (majority will be by dozer push) is placed on the pit floor after completion of coal mining. Weathered rock is placed on top of fresh rock delivered by truck and spread by dozer. Throughout the dump profile are terraces of ash placed by spot dumping in prepared areas, strategically located to minimise impact to the operation and the environment. The final covering over ash is a minimum of 8 metres in depth. The dump area is then prepared for rehabilitation.

Where practicable, the dumping of material occurs in a similar sequence to that by which it was stripped. In other words, the weathered material forms the top of the dump and the fresh material is dumped or pushed lower down in the pit.

Overburden dumps are shaped to the final post mining profile and then covered with topsoil placed directly from the highwall stripping operation by scrapers where practicable. The minimum thickness of topsoil is 250mm.

Rehabilitation:
Rehabilitation is a continuous process whereby following the placement of topsoil, soil preparation, and seeding is undertaken on the final landform. The general methods that will be utilised to achieve successful rehabilitation are:

- Bulk earthworks (contour reshaping)
  - This ensures the final landscape blends in as much as possible with the surrounding natural landscape;
  - The Back Creek Diversion Channel plan has specific landform shaping requirements which will be adhered to.
- Deep Ripping (if required)
  - To ensure suitable soil preparation that will allow for water and root penetration which will, in turn, allow for more successful / sustainable revegetation.
- Topsoiling
  - Topsoiling ensures the planted trees and pasture have adequate nutrients. It also replaces valuable seed and microorganisms.
- Seeding
  - To create pastures suitable for sustainable grazing.
  - To create nature corridors within the Back Creek Diversion Channel according to plan.
- Monitoring
  - Rehabilitation monitoring is undertaken twice yearly to assess rehabilitation against analogue sites and the EA criteria to ensure that vegetation establishment is proceeding as planned.

3.6. Mining Schedule

The mining schedule positions for the start and end of the period are shown in Figures 1 and 2. These positions are based on the AMP19 schedule. The main changes from the current PoOps is the commencement of mining in the northern F and I Pits on the eastern side of Back Creek and the additional mining and water management infrastructure related to opening this new area.

Construction of the northern flood levee was completed in December 2019 as shown in Figure 1. The southern flood levee is to be completed early in 2020 as shown in Figure 2. The levees will protect the mine pits and creek diversion civil works within the modelled 1:1000 year flood limits.

The creek diversion is currently scheduled for commissioning at the end of 2022, after which time a rehabilitation monitoring phase will commence.. Once the creek diversion is commissioned, the flood levees will be removed or mined through as required.

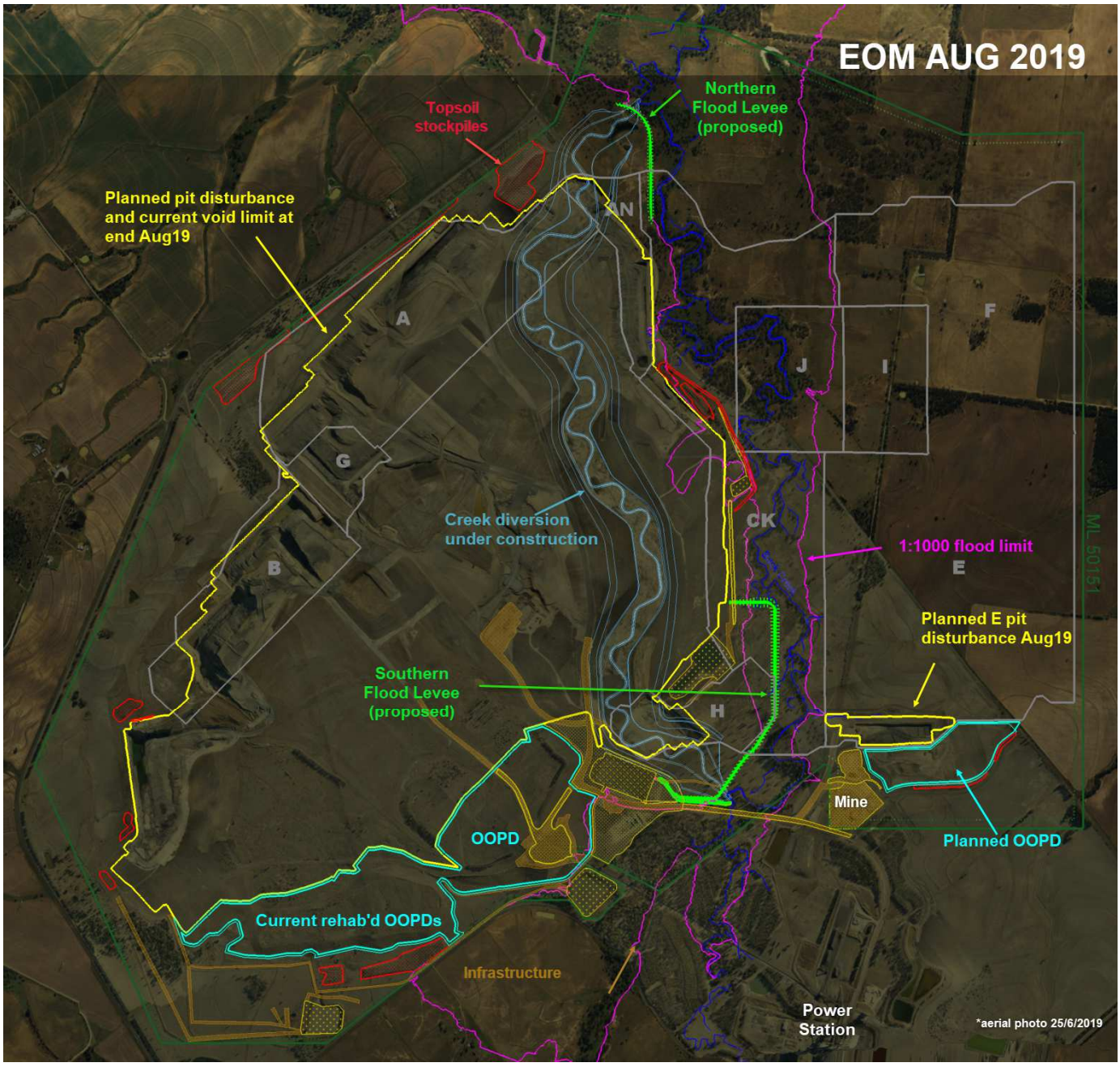


Figure 1: Limit of actual mining disturbance as at end Aug19.

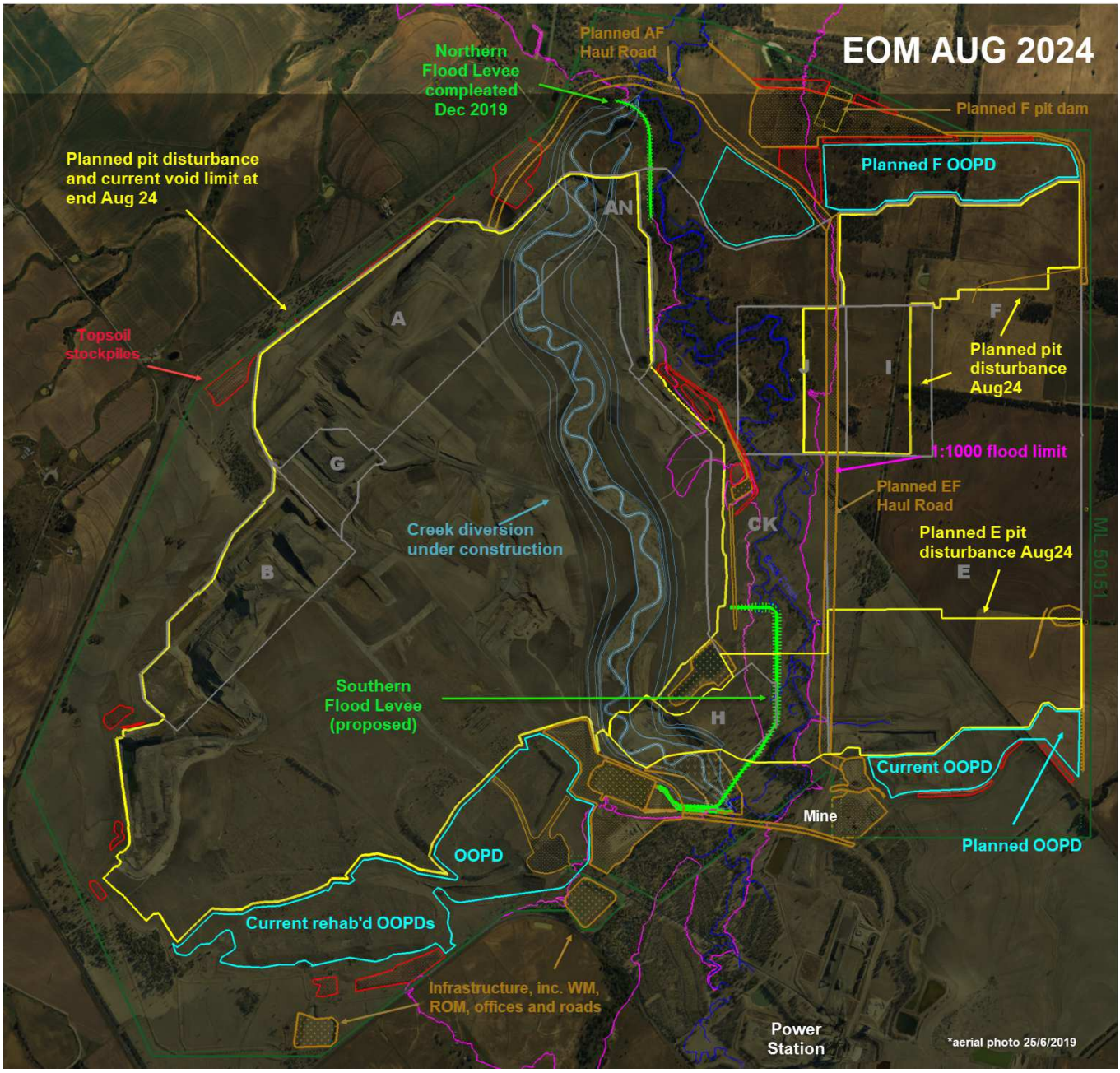


Figure 2: Limit of planned mining disturbance as at end Aug24.

4. Action Program

The following action program addresses how the conditions of Environmental Authority EPML00841513 will be complied with at Commodore Coal Mine over the period of this PoO.

No	Environmental Authority Condition	Control Strategy	Action Program
Schedule A – Agency interest: General			
A1	**Scope of approval** 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.	The Environmental Management Plan (8523-DM-SE-PLA2) and the Environmental Aspects Register (8523-DM-SE-REG13) are aligned with the EA to ensure compliance is met and no environmental harm is undertaken outside of our conditions. These documents also highlight the environmental risk associated with site activities and outline control measures to manage these risks.	The Environmental Management Plan (8523-DM-SE-PLA2) and the Environmental Aspects Register (8523-DM-SE-REG13) are reviewed annually and include any new legislative requirements and site activities.
A2	**Estimated Rehabilitation Cost (ERC)** The environment authority holder must not carry out, or allow the carrying out of, a resource activity under this environment authority unless – (a) An ERC decision is in effect for the resource activity being carried out; and (b) The environmental authority holder has paid a contribution to the scheme fund or given a surety for the environmental authority under the *Mineral and Energy Resources (Financial Provisioning) Act 2018*; and The holder has complied with the requirements under the *Mineral and Energy Resources (Financial Provisioning) Act 2018* for paying a contribution to the scheme fund, or giving a	The amount of financial assurance has been calculated in accordance with the requirements of the DES Guidelines – "Estimated rehabilitation cost under the *Environmental Protection Act 1994* (ESR/2018/4425)" and the "ERC calculator user guide – mining (ESR/2019/4626)". The	Activities pertaining to the EA are only undertaken once the EA holder (Millmerran Power Partners) has given financial assurance to the administering authority. Financial assurance is submitted in the amount and form required by the administering

No	Environmental Authority Condition	Control Strategy	Action Program
	surety for the authority, as required from time to time.	FA data is based on the position where the liability for rehabilitation is scheduled to be at its maximum in this PoO period (refer APPENDIX A – Financial Assurance Summary and APPENDIX D - Financial Assurance Calculations The amount will be submitted by Millmerran Power Partners as outlined by the administering authority.	authority.
A3	**New Estimated Rehabilitation Cost (ERC) decision before expiry** When ERC decision is in force for this environmental authority, the environmental authority holder must apply, under section 298 of the *Environmental Protection Act 1994*, for a new ERC decision, at least **three (3) months** before the ERC period to which the decision relates ends.	Millmerran Power Partners and Downer Mining keep record of licence expiry dates (including the ERC decision expiry date) to prevent lapses and ultimately compliance breaches.	The EA holder (Millmerran Power Partners) will apply for a new Estimated Rehabilitation Cost (ERC) decision 3 months before expiry / before the ERC period to which the decision relates ends.
A4	**When holder must re-apply for Estimated Rehabilitation Cost (ERC) decision** When ERC decision is in force for this environmental authority, the environmental authority holder must re-apply within **ten (10) business days** under section 298 of the *Environmental Protection Act 1994* for an ERC decision when: (a) there is an increase in the likely maximum amount of disturbance to the environment as a result of the holder carrying out the resource activity; or there is a change relating to the carrying out of the resource activity that may result in an increase in the ERC for the resource activity.	The Downer Mining Technical Services Team undertake long term mine planning so they can advise Millmerran Power Partners if there is an increase in the likely maximum amount of disturbance to the environment or if there will be changes relating to	Millmerran Power Partners will re-apply for an updated ERC decision within ten (10) business days if: (a) there is an increase in the likely maximum amount of disturbance to the environment as a result of the holder carrying out the

No	Environmental Authority Condition	Control Strategy	Action Program
		carrying out of the resource activity that may result in an increase in the ERC for the resource activity.	resource activity; or (b) there is a change relating to the carrying out of the resource activity that may result in an increase in the ERC for the resource activity.
A5	**Maintenance and measures** The environmental authority holder must: (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; (b) maintain such measures, plant and equipment in a proper and efficient condition; (c) operate such measures, plant and equipment in a proper and efficient manner; and (d) ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.	All site mobile equipment is operated and maintained to the OEM standard. All monitoring instruments and devices are scheduled and calibrated according to the required OEM standard.	Should any issues occur with mobile equipment or monitoring instruments maintenance/repairs will be undertaken according to the required OEM standard.
A6	**Monitoring** Except where specified otherwise in another condition of this environmental authority, all monitoring records or reports required by this environmental authority must be kept for a period of not less than **five (5) years**.	All monitoring records are kept on site for a period of no less than five years. Monitoring records older than five years are archived at a secure storage facility.	Monitoring records are kept in accordance of this condition during the term of the PoO.
A7	Upon request from the administering authority, copies of monitoring records and reports should must be made available and provided to the administering authority's nominated office within **ten (10) business days** or an alternative timeframe agreed between the administering authority and the holder. Any management or monitoring plans, systems or programs required to be developed and implemented by a condition of this environmental authority, should be reviewed for effectiveness in minimising the likelihood of environmental harm on an **annual basis**, and amended promptly if required, unless a particular review date and amendment program is	Monitoring records are easily accessible for provision to the Millmerran Power Partners who can provide to the administering authority within ten business days as required.	Monitoring records are kept in accordance of this condition during the term of the PoO. Action to review documents is taken when prompted by the

No	Environmental Authority Condition	Control Strategy	Action Program
	specified in the plan, system or program.	Monitoring plans, systems or programs are reviewed on an annual basis and amended as required. The Project Management Plan (PMP) holds all site documents and sends notifications when documents are required to be reviewed.	PMP.
A8	**Risk Management** The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the latest version of the Standard for Risk Management (ISO31000), or the latest edition of an Australian standard for risk management, to the extent relevant to environmental management, within **three (3) months** of the effective date of this environmental authority.	Downer Mining has developed and implemented a risk management system on site which mirrors the content requirement of the latest version of the Standard for Risk Management (ISO31000). Downer Mining is certified against the ISO 14001:2015 standard.	This risk management system will be audited and reviewed to ensure alignment with the current version of the Standard for Risk Management (ISO31000).
A9	**Notification of Emergencies, Incidents and Exceptions** The holder of this environmental authority must notify the administering authority by written notification within **twenty-four (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.	An Emergency Management Plan (8523-SE-PLA1002) is in place. Downer Mining has an incident reporting process in place which ensures that Millmerran Power Partners is notified within 24 hours of an emergency /incident /exception taking place, so the administering	Downer Mining will notify Millmerran Power Partners immediately of any environmental emergencies. Millmerran Power Partners will notify the administering authority of any environmental emergencies as soon as they have been informed.

No	Environmental Authority Condition	Control Strategy	Action Program
		authority can be notified.	
A10	Within **ten (10) business days** following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following: (a) results and interpretation of any samples taken and analysed (b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm (c) proposed actions to prevent a recurrence of the emergency or incident.	An Emergency Management Plan (8523-SE-PLA1002) is in place. Downer Mining has an incident reporting process in place which ensures that emergencies /incidents /exceptions are investigated, analysed and reported appropriately, so Millmerran Power Partners can be provided with the required information.	Downer Mining will provide Millmerran Power Partners with the official report following an incident or emergency. Millmerran Power Partners will notify the administering authority of any environmental emergencies as soon as they have been informed.
A11	**Complaints** The holder of this environmental authority must record all environmental complaints received about the mining activities including: (a) name, address and contact number for of the complainant (b) time and date of complaint (c) reasons for the complaint (d) investigations undertaken (e) conclusions formed (f) actions taken to resolve the complaint (g) any abatement measures implemented (h) person responsible for resolving the complaint.	Should a complaint relating to mining activities be received, it will be registered as an incident and all information recorded in accordance with EA condition A11.	Should a complaint relating to mining activities be received, it will be registered as an incident, reported to the administering authority, investigated and any remedial actions taken and reported back to the complainant and the administering authority.
A12	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 ten (10) business days of completion of the investigation, or no later than ten (10) business days after the end of the timeframe nominated by the	Additional monitoring/investigations will be undertaken when requested, and as specified, by the administering authority, in the required timeframe.	Additional monitoring/investigation is undertaken as required by this condition during the term of the PoO.

No	Environmental Authority Condition	Control Strategy	Action Program
	administering authority to undertake the investigation.		
A13	**Emergency Response / Contingency Plan** Within 12 months of the approval date of this environmental authority, the holder of this environmental authority must develop and implement an Emergency Response / Contingency Plan to manage the environmental impacts of uncontrolled release of contaminants to the environment.	An Emergency Management Plan (8523-SE-PLA1002) is in place to manage chemical/hydrocarbon spills. The document Dam Water Release Procedure (8523-SE-P1009) has been developed to manage water releases.	The Emergency Management Plan (8523-SE-PLA1002) and Dam Water Release Procedure (8523-SE-P1009) document will be reviewed annually during the term of this PoO.
A14	The Emergency Response / Contingency Plan must address at least the following matters: i) Response procedures to be implemented to reduce the likelihood of any release of contaminants to the environment; ii) Response procedures to prevent any further release or if such is not practicable, minimise the extent and duration of any release to the greatest practicable extent; iii) The practices and procedures to be employed to restore the environment, or if such is not practicable, mitigate any environmental impacts of the release; iv) A description of the resources to be used in response to a release; v) The training of staff that will be called upon to respond to a release; vi) Procedures to investigate the cause of any release, and where necessary, implement remedial actions to reduce the likelihood of recurrence of a similar event;	An Emergency Management Plan (8523-SE-PLA1002) is in place. Emergency response personnel undertake monthly training to ensure they are competent to manage an emergency. All emergencies/incidents are investigated to highlight key factors that have contributed to the incident occurrence and in doing so reduce the likelihood of recurrence of a similar event.	The Emergency Management Plan will be reviewed annually during the term of this PoO. Downer Mining will notify Millmerran Power Partners immediately of any environmental emergencies. Millmerran Power Partners will notify the administering authority of any environmental emergencies as soon as they have been informed.

No	Environmental Authority Condition	Control Strategy	Action Program
	vii) The provision and availability of documented procedures to staff attending any release to enable them to effectively respond; and viii) Timely and accurate reporting of the circumstance and nature of release events to the administering authority.		
A15	A copy of the Emergency Response / Contingency Plan and any subsequent amendment of the Emergency Response / Contingency Plan must be kept at the place to which this environmentally relevant activity relates and be available for examination by Emergency Services Personnel or an authorised person on request.	A copy of the Emergency Response Plan is available on site.	A copy of the Emergency Response Plan is available on site.
A16	In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with **Map 4: Project Layout – (Authorised Disturbed Areas)**.	Mining plans are designed in accordance with Map 4: Project Layout – (Authorised Disturbed Areas). The authorised maximum disturbed area specified in Map 4: Project Layout – (Authorised Disturbed Areas) is not exceeded by the actual disturbed area.	The Technical Services Team reports annually through the Annual Mine Plan on the actual disturbance area to show that the authorised maximum disturbed area specified in Map 4: Project Layout – (Authorised Disturbed Areas) is not exceeded by the actual disturbed area.
Schedule B – Agency interest: Air			
B1	**Dust Nuisance** Subject to Conditions **B2** and **B3** the release of dust or particulate matter or both resulting from the mining activity must not cause an environmental nuisance, at any sensitive place.	The following management strategies will minimise dust and particulate matter released from the operations: • Dust generation from mine haul roads and coal transfer conveyors will be	Dust management strategies will be used during the life of this PoO. Millmerran Power Partners will undertake monthly depositional dust monitoring. Should a complaint relating to dust be

No	Environmental Authority Condition	Control Strategy	Action Program
		suppressed by water spraying • Conveying systems will be covered • Coal stockpiles will be monitored by observation for evidence of spontaneous combustion. • Appropriate preventative and corrective action will be taken in response to spontaneous combustion problems • Land disturbance will be restricted to that necessary for the works Any complaints regarding air quality will be recorded as an incident. All complaints will be responded to and all legitimate complaints will be investigated. Where appropriate corrective actions will be	received, it will be registered as an incident, reported to the administering authority, investigated and any remedial actions taken and reported back to the complainant and the administering authority.

No	Environmental Authority Condition	Control Strategy	Action Program
		implemented.	
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 **fourteen (14) days** to the administering authority following completion of monitoring.	The Project will monitor dust and particulate matter within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint.	In the event of a complaint or DES request, Millmerran Power Partners will implement dust monitoring within a reasonable timeframe nominated by the DES. Monitoring will be conducted in accordance with Australian Standards. Analysis and interpretation of monitoring results shall be undertaken to measure compliance with EA conditions. The investigation monitoring point/s will be located as close as reasonably practicable to the location of the complaint. The investigation report will be submitted to the administering authority.
B3	The environmental authority holder must take all reasonable and feasible avoidance and mitigation measures so that the dust and particulate matter emissions generated by mining	The Project will monitor dust and particulate matter	Depositional dust monitoring will be

No	Environmental Authority Condition	Control Strategy	Action Program
	activities do not cause exceedances of the following levels when measured at any sensitive or commercial place: (a) Dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with the most recent version of *Australia Standard AS3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method*; and (b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24 hour averaging time, at a sensitive place downwind of the operational land, when monitored in accordance with: (i) Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size selective inlet - Gravimetric method, when monitored in accordance with the most recent version of *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.	within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint and compare results to limits in this Environmental Authority (EA) condition.	undertaken by Millmerran Power Partners monthly and compared to the limits of this EA condition. Downer Mining will review these results on a monthly basis in respect to their mining activities.
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) as soon as practicable or at the request of the administering authority, implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.	The following management strategies will minimise dust and particulate matter released from the operations: • Dust generation from mine haul roads and coal transfer conveyors will be suppressed by water spraying • Conveying systems	If necessary, additional abatement measures will be identified and implemented following conclusion of the investigation.

No	Environmental Authority Condition	Control Strategy	Action Program
		will be covered • Coal stockpiles will be monitored by observation for evidence of spontaneous combustion. • Appropriate preventative and corrective action will be taken in response to spontaneous combustion problems • Land disturbance will be restricted to that necessary for the works If necessary, additional abatement measures will be identified and implemented following conclusion of any incident investigation.	
Schedule C – Agency interest: Water			
C1	**Release to Waters** 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.	The following management strategies are in place to manage the risk of a release to water from the mining	Water will be managed in accordance with Trigger Action Response Plans (8523-SE-PLA1011) and the

No	Environmental Authority Condition	Control Strategy	Action Program
		operations: • Storm water retention ponds are in place to retain water from mining disturbance areas • Automated real-time monitoring stations are located upstream and downstream of the mining lease • A system of rising stage samplers are installed upstream and downstream of the mining lease • A sampling program is currently in place to assess the water quality of water stored on site. • Water management infrastructure is in place to manage all potentially contaminated water and divert clean water.	Site Water Management Plan (8523-SE-PLA1007). Receiving waters will be monitored at the locations and frequencies in Schedule C - Table 1 during the term of this plan to demonstrate compliance with the contaminant limits in Schedule C - Table 2 and Table 3 and in accordance with the Surface Water Monitoring Procedure (8523-SE-P1005).

No	Environmental Authority Condition	Control Strategy	Action Program
		• An Surface Water Monitoring Procedure (8523-SE-P1005) has been developed to document the monitoring requirements should a water release be required. • Trigger Action Response Plans (8523-SE-PLA1011) are in place and water is managed in accordance with them. • A Water Management Plan (8523-SE-PLA1007) has been developed and implemented.	
C2	Receiving waters must be monitored at the locations and frequencies defined in **Schedule C - Table 1** and - **Figure 2** for the parameters defined in **Schedule C - Table 1**.	Should a release of water be required from site, monitoring will proceed as per the locations and frequencies defined in Schedule C - Table 1 and Attachment - Figure 2 for the parameters defined in Schedule C - Table 1 and the Surface Water	Receiving waters will be monitored at the locations and frequencies in Schedule C - Table 1 during the term of this plan to demonstrate compliance with the contaminant limits in Schedule C - Table 1

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td></td><td>Monitoring Procedure (8523-SE-P1005) and schedule.</td><td>and in accordance with the Environmental Monitoring Procedure – Receiving Waters and Release Points (8523-SE-P1005).</td></tr>
<tr><td>C3</td><td>The environmental authority holder must take all reasonable and practicable measures to collect at least one grab sample at MP1 (as shown in - Figure 1) during each flow event when flow in Back Creek at MP1 is in falling stage or base flow. The grab sample must be analysed for both total suspended solids and turbidity and the following recorded at the time of sampling –

(a) ambient weather conditions;

(b) time, date and flow rate (L/s)\; and

(c) photo of sampling location showing level of flow in Back Creek.

Note: For the purposes of Schedule C – Table 1 and condition C2, grab samples must be taken in a representative manner and if in-stream flow conditions do not permit grab sampling the reason and environmental conditions must be recorded accordingly.</td><td>Should sufficient flow occur in Back Creek, at least one grab sample will be taken at MP1 during falling stage or base flow as per the Surface Water Monitoring Procedure (8523-SE-P1005).</td><td>Any sufficient flow in Back Creek will be sampled in accordance with the Surface Water Monitoring Procedure (8523-SE-P1005) including obtaining a falling stage sample at MP1.</td></tr>
<tr><td>C4</td><td>Mine affected water must be monitored at the locations and frequencies defined in Schedule C - Table 2 and Figure 2.

Schedule C - Table 1 - Receiving water monitoring points
<table>
<tr><th>Monitoring point (MP)</th><th>Description</th><th>Latitude (GDA 94)*</th><th>Longitude (GDA94)*</th><th>Monitoring frequency</th><th>Monitoring parameters</th></tr>
<tr><td>MP1</td><td>Back Creek Upstream 1</td><td>-27.958322</td><td>151.267813</td><td>Continuous</td><td rowspan="3">pH, Total suspended solids (mg/L), electrical conductivity (µS/cm) and turbidity (NTU)</td></tr>
<tr><td>MP2</td><td>Back Creek Downstream 2</td><td>-27.948407</td><td>151.274634</td><td rowspan="2">As soon as practicable prior to and during a release to Back Creek</td></tr>
<tr><td>MP3</td><td>Back Creek Downstream 3</td><td>-27.929570</td><td>151.276650</td></tr>
</table></td><td>A real-time monitoring station located at MP1 continuously monitors the parameters as per Schedule C - Table 2.

Should a release of water be required from site, monitoring will proceed as per Schedule C - Table 2 and the Surface Water Monitoring procedure (8523-SE-P1005).</td><td>Any release to waters will be monitored in accordance with the Surface Water Monitoring Procedure (8523-SE-P1005).</td></tr>
</table>

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td>
<table>
<tr><td>MP4</td><td>Back Creek Downstream 1</td><td>-27.912645</td><td>151.269816</td><td rowspan="2">and at least once after cessation of a release event.</td><td rowspan="2"></td></tr>
<tr><td>MP5</td><td>Back Creek Downstream 4</td><td>-27.888749</td><td>151.027515</td></tr>
</table>
* - GDA94 (dd mm ss.ss)
</td><td></td><td></td></tr>
<tr><td>C5</td><td>Water contaminated by mining activities must only be released from the locations defined in Schedule C – Table 2.

Schedule C - Table 2 Release point monitoring
<table>
<tr><th>Release Point (RP)[1]</th><th>Description</th><th>Latitude (GDA94)</th><th>Longitude (GDA94)</th><th>Monitoring Frequency</th><th>Monitoring Parameters</th><th>Receiving waters</th></tr>
<tr><td>RP1</td><td>Environmental Dam 1</td><td>-27.951746</td><td>151.276044</td><td rowspan="6">Monthly in storage. Prior to release, daily during a release event and upon cessation of release.</td><td rowspan="6">pH, total suspended solids (mg/L), electrical conductivity (µS/cm) for all release points and also total oil and petroleum hydrocarbons at RP1</td><td rowspan="6">Back Creek</td></tr>
<tr><td>RP2</td><td>Sedimentation Dam 1</td><td>-27.949139</td><td>151.274117</td></tr>
<tr><td>RP 3</td><td>Sedimentation Dam 2</td><td>-27.954055</td><td>151.266616</td></tr>
<tr><td>RP 4</td><td>Pit A East Sediment Trap, Swan Lake</td><td>-27.943773</td><td>151.271374</td></tr>
<tr><td>RP5</td><td>Pit A North Sediment Trap, Swan Lake</td><td>-27.940445</td><td>151.273764</td></tr>
<tr><td>RP6</td><td>Sedimentation Dam 3</td><td>-27.932615</td><td>151.275474</td></tr>
</table>
[1] - Location of Release points as per figure 2
* - GDA94 (dd mm ss.ss)
</td><td>Water is managed in accordance with Trigger Action Response Plans (8523-SE-PLA1011).

A Water Management Plan (8523-SE-PLA1007) has been developed and implemented.</td><td>Releases only occur from the authorised locations as per the Water Management Plan (8523-SE-PLA1007) and Trigger Action Response Plans (8523-SE-PLA1011).</td></tr>
<tr><td>C6</td><td>Contaminants must not be released from the mine to any waters or the bed and banks of</td><td>Water is managed in</td><td>Releases only occur</td></tr>
</table>

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr>
<td></td>
<td>any waters other than treated/settled stormwater from those release points nominated in Schedule C – Table 2 that is in accordance with the end of pipe contaminant release limits in Schedule C – Tables 3 & 4.

Schedule C - Table 3 – End of pipe contaminant release limits
<table>
<tr><th>Parameter</th><th>Units</th><th>Minimum</th><th>Maximum</th></tr>
<tr><td>pH</td><td>pH units</td><td>6.0</td><td>9.0</td></tr>
<tr><td>Electrical Conductivity</td><td>µS/cm</td><td>-</td><td>1500</td></tr>
<tr><td>Oils and petroleum hydrocarbons</td><td>mg/L</td><td>-</td><td>10</td></tr>
<tr><td>Total suspended solids (TSS)</td><td>mg/L</td><td></td><td></td></tr>
</table>
Schedule C - Table 4 – Mine affected water release during flow events –End of pipe release limits for Total suspended solids</td>
<td>accordance with Trigger Action Response Plans (8523-SE-PLA1011).

A Water Management Plan (8523-SE-PLA1007) has been developed and implemented.

Should a release of water from site need to occur, monitoring will proceed as per Schedule C - Tables 3 and 4 and the Surface Water Monitoring procedure (8523-SE-P1005).</td>
<td>from the authorised locations as per the Water Management Plan (8523-SE-PLA1007) and Trigger Action Response Plans (8523-SE-PLA1011).

Any release to waters will be monitored in accordance with the Surface Water Monitoring Procedure (8523-SE-P1005).

No releases will occur if the limits cannot be met.

The Trigger Action Response Plans (8523-SE-PLA1011) dictate how the water will be managed depending on the water quality as compared to these limits.</td>
</tr>
</table>

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td>
<table>
<tr><th>Receiving Waters/ Stream</th><th>Release Point</th><th>Gauging Station</th><th>Gauging station Latitude (GDA94)</th><th>Gauging station Longitude (GDA94)</th><th>Receiving water flow recording frequency</th><th>Receiving water flow criteria for discharge</th><th>Total Suspended Solids Release Limits</th></tr>
<tr><td>Back Creek</td><td>RP1
RP2
RP3
RP4
RP5
RP6</td><td>“High Flow” and “Low Flow” visual indicators in Back Creek at MP1</td><td>-27.958322</td><td>151.267813</td><td>Continuous (minimum daily) (m^3/s)</td><td>Low Flow mark – flow must be above mark shown in– Figure 1 as RL421.445 mAHD in Back Creek</td><td>240mg/L[1]</td></tr>
<tr><td>Back Creek</td><td>RP1
RP2
RP3
RP4
RP5
RP6</td><td>“High Flow” and “Low Flow” visual indicators in Back Creek at MP1</td><td>-27.958322</td><td>151.267813</td><td>Continuous (minimum daily) (m^3/s)</td><td>High Flow mark – flow must be above base of Rising Stage Sampler shown in– Figure 1 RL422.531m AHD in Back Creek.</td><td>750mg/L</td></tr>
</table>
1 – Limit applies until 1 May 2016 pending the collection and analysis of Total suspended solids levels from grab samples (a minimum of 18 data-points collected over a period of 12 to 24 months) during low-medium flow.
mAHD – meters above Australian Height Datum
</td><td></td><td></td></tr>
<tr><td>C7</td><td>Notwithstanding condition C6 the holder of this environmental authority is only authorised to release mine affected water in accordance with Table 4. The release must occur in such a manner that it does not cause environmental harm to the waters of Back Creek.</td><td>Should a release of water be required from site, monitoring will proceed as per the Surface Water Monitoring procedure (8523-SE-P1005).</td><td>Releases only occur from the authorised locations as per the Surface Water Monitoring procedure (8523-SE-P1005).</td></tr>
</table>

No	Environmental Authority Condition	Control Strategy	Action Program
			Visual and photographic inspections of Back Creek are undertaken prior to and following all release events to assess any damage or erosion that has occurred as a result of the release.
C8	During each flow event flow in Back Creek should be determined in m^3/sec located at Monitoring Point 1 (MP1) using the upstream flow meter.	Automated real-time monitoring stations are located upstream and downstream of the mining lease.	The automated real-time monitoring station located at MP1 records flow.
C9	The low flow mark and high flow mark referred to in Schedule C – Table 4 must be reviewed by 1 May each year to ensure that the dimensions of the flow channel have not changed significantly such that the level of flow at this point in Back Creek had changed. If the flow channel has been subject to change the holder of the environmental authority must ensure the marks are re-surveyed.	Photo monitoring is undertaken annually to assess if the dimensions of the flow channel have changed.	Photo monitoring will be undertaken annually to determine if the dimensions of the flow channel have changed. If the channel has changed the high and low flow marks will be re-surveyed.
C10	The holder of this environmental authority must take all reasonable and practicable measures to ensure that the location of Rising Stage Sampler (RSS) and upstream flow meter(s) must be free from immediate disturbance such as grazing and stock watering.	MP1 is regularly inspected to ensure that the location of Rising Stage Sampler (RSS) and upstream flow meter(s) are free from immediate disturbance such as grazing and stock	The fences around the upstream RSS and automated monitoring station will be monitored and maintained.

No	Environmental Authority Condition	Control Strategy	Action Program
		watering. The upstream RSS and automated monitoring station are fenced off from stock.	Visual inspections of the upstream RSS and automated monitoring station will be undertaken to ensure they are intact. If there is any damage to them due to floodwaters, Millmerran Power Partners will be notified so they can be repaired.
C11	The following must be documented when surface water monitoring is conducted in accordance with conditions of this environmental authority: (a) Flow rate (m3/sec) upstream of the release; (b) Date and time; (c) Name of person undertaking sampling; (d) Ambient weather conditions including, temperature, rainfall etc; (e) Water temperature; and (f) Turbidity (NTU), Total suspended solids (TSS) mg/L levels must be reported against upstream turbidity levels, time and rainfall for the duration of each release to waters.	Should a release of water from site occur, monitoring will proceed as per the Surface Water Monitoring procedure (8523-SE-P1005) and Dam Water Release procedure (8523-SE-P1009) including all information specified by EA condition C11.	Downer Mining provides details of all water release events to Millmerran Power Partners. Millmerran Power Partners will provide the required information / reports to the administering authority.
C12	The daily quantity of mine affected water released from each release point must be recorded.	Should a release of water from site occur, monitoring will proceed as per the Surface Water Monitoring procedure (8523-SE-P1005) and Dam Water Release procedure (8523-SE-P1009) including all	Downer Mining provides details of all water release events to Millmerran Power Partners. Millmerran Power Partners will provide the

No	Environmental Authority Condition	Control Strategy	Action Program
		information specified by EA condition C12.	required information / reports to the administering authority.
C13	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.	Water is managed in accordance with Trigger Action Response Plans (8523-SE-PLA1011). Water Management Plan (8523-SE-PLA1007) has been developed and implemented. Should a release of water from site occur, it will be undertaken in accordance with the Dam Water Release procedure (8523-SE-P1009) with monitoring proceeding as per the Surface Water Monitoring procedure (8523-SE-P1005).	Releases only occur from the authorised locations as per the Water Management Plan (8523-SE-PLA1007) in accordance with the Dam Water Release procedure (8523-SE-P1009). Visual and photographic inspections of Back Creek are undertaken prior to and following all release events to assess any damage or erosion that has occurred as a result of the release.
C14	The environmental authority holder must notify the administering authority (or its representative) as soon as practicable and no later than **twenty-four (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: (a) release commencement date and time; (b) details regarding the compliance of the release with the conditions of this environmental authority (that is, contaminant limits, natural flow, discharge	Should a release of water from site occur, it will be undertaken in accordance with the Dam Water Release procedure (8523-SE-P1009) with monitoring proceeding as per the Surface Water Monitoring procedure (8523-SE-P1005) with information recorded as outlined in	Downer Mining provide details of all water release events to Millmerran Power Partners. Millmerran Power Partners provide the required information / report to the administering authority.

No	Environmental Authority Condition	Control Strategy	Action Program
	volume); (c) release point(s); (d) release rate; (e) release salinity; and (f) receiving water(s) including the natural flow rate.	Condition C14.	
C15	The environmental authority holder must notify the administering authority (or its representative) as soon as practicable and nominally no later than **twenty-four (24) hours** after cessation of a release event under **Condition C14** and within **twenty-eight (28) days** provide the following information in writing: (a) release cessation date and time; (b) natural flow rate in receiving water; (c) volume of water released; (d) details regarding the compliance of the release with the conditions of this environmental authority (i.e. contaminant limits, natural flow, discharge volume); (e) all in-situ water quality monitoring results; and (f) any other matters pertinent to the water release event. Note: Successive or intermittent releases occurring within twenty-four (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 C14 and C15, provided the relevant details of the release are included within the notification provided in accordance with Conditions C14 and C15.	Should a release of water from site occur, it will be undertaken in accordance with the Dam Water Release procedure (8523-SE-P1009) with monitoring proceeding as per the Surface Water Monitoring procedure (8523-SE-P1005) with information recorded as outlined in Condition C15.	Downer Mining provide details of all water release events to Millmerran Power Partners. Millmerran Power Partners provide the required information / report to the administering authority.
C16	**Notification of Release Event Exceedance** If the release limits defined in **Schedule C – Table 3 and 4** are exceeded, the holder of the environmental authority must notify the administering authority within **twenty-four (24) hours** of receiving the results.	Should a release of water from site occur, it will be undertaken in accordance with the Dam Water Release procedure (8523-	Downer Mining will provide details of all water release events including monitoring results to Millmerran

No	Environmental Authority Condition	Control Strategy	Action Program
		SE-P1009) with monitoring proceeding as per the Surface Water Monitoring procedure (8523-SE-P1005). If the release water quality limits are found to have been exceeded during a release event Millmerran Power Partners will be notified immediately.	Power Partners. Millmerran Power Partners will provide the required information / report to the administering authority.
C17	The environmental authority holder must, within twenty-eight (28) days of a release that is not compliant with the conditions of this environmental authority, provide a report to the administering authority (or its representative) detailing: (a) the reason for the release (b) the location of the release (c) the total volume of the release and which (if any) part of this volume was non-compliant (d) the total duration of the release and which (if any) part of this period was non-compliant (e) all water quality monitoring results (including all laboratory analyses) (f) identification of any environmental harm as a result of the non-compliance (g) all calculations (h) any other matters pertinent to the water release event.	Should a release of water from site occur, it will be undertaken in accordance with the Dam Water Release procedure (8523-SE-P1009) with monitoring proceeding as per the Surface Water Monitoring procedure (8523-SE-P1005). If the release water quality limits are found to have been exceeded during a release event Millmerran Power Partners will be notified immediately and the information outlined in Condition C17 provided.	Downer Mining will provide details of all water release events including monitoring results to Millmerran Power Partners. Millmerran Power Partners will provide the required information / report to the administering authority.
C18	**Receiving Environment Monitoring Program (REMP)** The environmental authority holder must develop and implement a REMP to monitor,	A Receiving Environmental Monitoring Program (8523-SE-	A suitable qualified and competent person undertakes receiving

No	Environmental Authority Condition	Control Strategy	Action Program
	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.	PLA1016) has been developed and implemented to monitor, identify and describe any adverse impacts to surface water environmental values, quality and flows due to authorised mining activity. Under natural flow and during release events, monitoring is undertaken to determine the effect of the mine on the receiving environment.	environmental monitoring when suitable flow occurs in the receiving environment.
C19	The REMP must include (in reference to **Schedule C Table 3** (release criteria)): (a) assess the condition or state of receiving waters, including upstream conditions, spatially within the REMP area, considering background water quality characteristics based on accurate and reliable monitoring data that takes into consideration temporal variation (e.g. seasonality); (b) be designed to facilitate assessment against water quality objectives for the relevant environmental values that need to be protected; (c) include monitoring from background reference sites (e.g. upstream or background) and downstream sites from the release (as a minimum, the locations specified in **Schedule C – Table 1**); (d) specify the frequency and timing of sampling required in order to reliably assess ambient conditions and to provide sufficient data to derive site specific background reference values in accordance with the Queensland Water Quality Guidelines 2006. This should include monitoring during periods of natural flow irrespective of mine or other discharges; (e) include monitoring and assessment of dissolved oxygen saturation, temperature and all water quality parameters listed in **Schedule C Table 3**;	The Receiving Environmental Monitoring Program (8523-SE-PLA1016) has been developed to ensure all requirements are met under condition C19.	The REMP has been developed by a suitably qualified and competent person for the duration of the PoO.

No	Environmental Authority Condition	Control Strategy	Action Program
	(f) include, where appropriate, monitoring of metals and metalloids in sediments (in accordance with ANZECC & ARMCANZ 2000; Batley and/or most recent version of AS5667.1: Guidance on Sampling Bottom Sediments); (g) include, where appropriate, monitoring of macroinvertebrates in accordance with the AusRivas method; (h) apply procedures and/or guidelines from ANZECC & AMRCANZ 2000 and other relevant guideline documents; (i) describe sampling and analysis methods and quality assurance and control; and (j) incorporate stream flow and hydrological information in the interpretations of water quality.		
C20	**Water Management Plan** A Water Management Plan must be developed by an appropriately qualified person and implemented by an appropriately qualified person for all stages of the authorised mining activities. The water management plan must be submitted to the administering authority for review and within **twelve (12) months** of the diversion of Back Creek and installation of the levee.	A copy of the Water Management Plan (8523-SE-PLA1007) will be held at the Commodore Coal Mine and available upon request. The Water Management Plan (8523-SE-PLA1007) will be provided to the administering authority within 12 months of the diversion of Back Creek and installation of the levee.	The Water Management Plan (8523-SE-PLA1007) has been developed by a suitably qualified and competent person and is reviewed annually for the duration of the PoO.
C21	The Water Management Plan required by **Condition C20** must: (a) provide for effective management of actual and potential environmental impacts resulting from water management associated with the mining activity carried out under the environmental authority; (b) a study for the source of contaminants; (c) a water balance model for the site;	The Water Management Plan (8523-SE-PLA1007) has been developed to ensure all requirements are met under condition C21.	The Water Management Plan (8523-SE-PLA1007) has been developed by a suitably qualified and competent person and is reviewed annually for the duration of the PoO.

No	Environmental Authority Condition	Control Strategy	Action Program
	(d) a water management system for the site; (e) Erosion and sediment control measures to be implemented; (f) measure to management and prevent saline drainage; (g) measures to manage and prevent acid and metalliferous drainage; (h) contingency procedures for emergency events; and, (i) a program for monitoring and review of the effectiveness of the water management plan.		
C22	A record of and an analysis of the results of the surface water monitoring conducted in accordance with the Water Management Plan, including background water quality monitoring must be kept and forwarded to the administering authority on request.	All monitoring results and associated analysis are recorded and kept for a minimum of five years.	All monitoring results and associated analysis will be kept in hard copy, with digital records stored on the project's share drive. Results will be made available to administering authority upon request.
C23	**Sediment and erosion control** All reasonable and practicable erosion and sediment control measures must be provided and maintained to effectively minimise any likelihood of erosion and release of sediments from the mine (e.g. diversion banks, sediment collection dams and progressive revegetation of disturbed areas). The erosion and sediment control measures must be maintained during mining operations, decommissioning and post mining.	The following management strategies will minimise erosion and the release of sediment from the operations: • Ensure that areas of land disturbance are minimised • Diversion channels and sediment control dams are present, and will be during the term	The (8523-SE-PLA1013) Erosion and Sediment Control Plan will be held at the Commodore Coal Mine and available upon request. All run-off water from disturbed areas are intercepted and directed to sediment control dams designed to remove sediment.

No	Environmental Authority Condition	Control Strategy	Action Program
		of this PoO, used to minimise the release of sediment.	Sediment control dams will be de-silted as required.
C24	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.	The Erosion and Sediment Control Plan (8523-SE-PLA1013) has been developed by an appropriately qualified person. The Erosion and Sediment Control Plan has been developed to ensure all stages of the mining activities on site are undertaken to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.	The Erosion and Sediment Control Plan (8523-SE-PLA1013) will be held at the Commodore Coal Mine and available upon request. The Erosion and Sediment Control Plan will be reviewed annually and implemented to ensure all stages of the mining activities are undertaken to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.
C25	**Temporary interference with waterways** Destroying native vegetation, excavating, or placing fill in a watercourse, lake or spring necessary for and associated with mining operations must be undertaken in accordance with Department of Natural Resources and Mines (or its successor) *Guideline – Activities in a Watercourse, Lake or Spring associated with Mining Activities*.	Long-term mine planning is undertaken by the Downer Mining Technical Services team to determine if waterways will need to be temporarily interfered with.	Should a waterway need to be interfered with, the relevant guidelines and associated application processed will be followed to ensure compliance with Condition 25.

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr>
<td>C26</td>
<td>
Groundwater

Groundwater affected by the mining activities must be monitored for standing water levels and flow rates (if applicable) prior to sampling for water quality parameters at the locations and frequencies defined in Schedule C - Table 5 and Map 2 and for the parameters defined in Schedule C – Table 6 for bores marked *.

Schedule C - Table 5 (Ground water monitoring locations and frequency)
<table>
<tr><th>Monitoring point</th><th>Latitude (GDA94)**</th><th>Longitude (GDA94)**</th><th>Aquifer</th><th>Monitoring frequency</th></tr>
<tr><td>CMW100</td><td>-27.962217</td><td>151.284517</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>CMW101*</td><td>-27.916689</td><td>151.314275</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels & 6 monthly – water quality</td></tr>
<tr><td>CMW102*</td><td>-27.938703</td><td>151.313700</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels & 6 monthly – water quality</td></tr>
<tr><td>CMW103A</td><td>-27.928500</td><td>151.33345</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>CMW103B</td><td>-27.927600</td><td>151.333583</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>CMW104</td><td>-27.916878</td><td>151.263542</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>CMW105A</td><td>-27.922056</td><td>151.320825</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>CMW105B</td><td>-27.922506</td><td>151.320758</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>GW7</td><td>-27.929039</td><td>151.284517</td><td>Walloon Coal Measure</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>GW10</td><td>-27.923908</td><td>151.247772</td><td>Walloon Coal Measure</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>GW11</td><td>-27.923936</td><td>151.247792</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>GW12</td><td>-27.923472</td><td>151.271778</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>GW13</td><td>-27.923436</td><td>151.271819</td><td>Walloon Coal Measure</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>GW14</td><td>-27.923392</td><td>151.271811</td><td>Walloon Coal Measure</td><td>Quarterly - Standing water levels</td></tr>
</table>
</td>
<td>
The following management strategies will reduce the risk of contamination of groundwater from the operations:

• Facilities have been lined where it is deemed applicable

• Raw water dam is fully lined

• Paved area and sumps used to store materials on site

• On-site containment of flammable and combustible liquids constructed in accordance with AS 1940:2004.

• Ash haulage and burial is managed in accordance with the Ash Handling Plan (8523-SE-PLA1008).

Millmerran Power Partners undertake a groundwater monitoring program in
</td>
<td>Millmerran Power Partners undertake a groundwater monitoring program in accordance with this EA condition.</td>
</tr>
</table>

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td>
<table>
<tr><td>GW15</td><td>-27.920203</td><td>151.281025</td><td>Walloon Coal Measure</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>GW17*</td><td>-27.871700</td><td>151.314867</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels & 6 monthly – water quality</td></tr>
<tr><td>GW18*</td><td>-27.871683</td><td>151.314983</td><td>Walloon Coal Measure</td><td>Quarterly - Standing water levels & 6 monthly – water quality</td></tr>
<tr><td>GW19*</td><td>-27.905983</td><td>151.349883</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels & 6 monthly – water quality</td></tr>
<tr><td>GW20</td><td>-27.906000</td><td>151.349717</td><td>Walloon Coal Measure</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>GW21</td><td>-27.888633</td><td>151.380800</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
<tr><td>GW22</td><td>-27.957217</td><td>151.340200</td><td>Marburg Sandstone</td><td>Quarterly - Standing water levels</td></tr>
</table>
</td><td>accordance with Schedule C - Table 5 and Attachments - Map 2, and for the parameters defined in Schedule C – Table 6.</td><td></td></tr>
<tr><td>C27</td><td>If the groundwater contaminant trigger levels defined in Schedule C – Table 6 are exceeded then the environmental authority holder must complete an investigation into the potential for environmental harm and notify the administering authority within three (3) months of receiving the analysis results.

Schedule C - Table 6 (Groundwater contaminant trigger levels for bores in Schedule C – Table 5 marked *)
<table>
<tr><th>Parameter</th><th>Units</th><th>Contaminant trigger levels</th></tr>
<tr><td>pH</td><td>PH units</td><td>+/- 1.0 of background</td></tr>
<tr><td>Boron</td><td>mg/L</td><td>+/- 10% of background</td></tr>
<tr><td>Molybdenum</td><td>mg/L</td><td>+/- 10% of background</td></tr>
<tr><td>Electrical Conductivity</td><td>µS/cm</td><td>+/- 10% of background</td></tr>
<tr><td>Bicarbonate</td><td>mg/L</td><td>+/- 10% of background</td></tr>
<tr><td>Cadmium (filtered)</td><td>mg/L</td><td>+/- 10% of background</td></tr>
<tr><td>Calcium (filtered)</td><td>mg/L</td><td>+/- 10% of background</td></tr>
<tr><td>Carbonate as $CaCO_3$</td><td>mg/L</td><td>+/- 10% of background</td></tr>
<tr><td>Iron (filtered)</td><td>mg/L</td><td>+/- 10% of background</td></tr>
<tr><td>Magnesium</td><td>mg/L</td><td>+/- 10% of background</td></tr>
<tr><td>Nitrate as N</td><td>mg/L</td><td>+/- 10% of background</td></tr>
<tr><td>SAR</td><td>units</td><td>+/- 10% of background</td></tr>
<tr><td>Selenium (filtered)</td><td>mg/L</td><td>+/- 10% of background</td></tr>
</table>
</td><td>Millmerran Power Partners undertake a groundwater monitoring program in accordance with Schedule C - Table 5 and Attachment - Map 2, and for the parameters defined in Schedule C – Table 6.</td><td>Millmerran Power Partners will undertake an investigation if trigger levels are exceeded.

The report will be submitted to the administering authority within three months of receiving the analysis results.</td></tr>
</table>

No	Environmental Authority Condition	Control Strategy	Action Program
	Sulphate (filtered) mg/L +/- 10% of background Total Cyanide mg/L +/- 10% of background Total Dissolved Solids mg/L +/- 10% of background Total Hardness and $CaCO_3$ mg/L +/- 10% of background Total Suspended Solids mg/L +/- 10% of background Turbidity NTU +/- 10% of background		
C28	For those groundwater bores marked with an * in **Schedule C – Table 5,** groundwater levels must be monitored and groundwater draw down fluctuations in excess of 2m per year, not resulting from the pumping of licensed bores, must be notified within **fourteen (14) days** to the administering authority following completion of monitoring.	Millmerran Power Partners undertake a groundwater monitoring program in accordance with Schedule C - Table 5 and Attachment - Map 2, for groundwater standing levels.	Millmerran Power Partners will undertake an investigation if standing water levels fluctuate by greater than 2m per year. The report will be submitted to the administering authority within three months of receiving the analysis results.
C29	The method of water sampling required by this environmental authority must comply with that set out in the latest edition of the Department of Environment and Science Water Quality Sampling Manual.	A Water Management Plan (8523-SE-PLA1007) has been developed and implemented with surface water monitoring proceeding as per the Surface Water Monitoring procedure (8523-SE-P1005). Ground water monitoring is undertaken by Aqualyng on behalf of Millmerran Power Partners.	Monitoring is undertaken by appropriately trained professionals. Monitoring will be conducted in accordance with Australian Standards. The Surface Water Monitoring procedure (8523-SE-P1005) is reviewed every two years to ensure alignment with the Department of

No	Environmental Authority Condition	Control Strategy	Action Program
			Environment and Science Water Quality Sampling Manual and other associated Australian Standards.
C30	**Back Creek Diversion Monitoring Program** Within **twelve (12) months** of receiving approval from DNRM&W for the Back Creek low flow channel the environmental authority holder must develop a program to monitor the diversion of Back Creek. The draft monitoring program must be consistent with the DNRM&W licence and be submitted to the administering authority for comment at least **six (6) weeks** prior to commencement of the program. The holder of this environmental authority must have due regard for the comments of the administering authority in finalising the details of the monitoring program. The Back Creek Diversion Monitoring Program must satisfy the following: (a) Developed and carried out by a person possessing appropriate qualifications and experience in aquatic ecological and water quality monitoring, and to be able to competently make recommendations about these matters; (b) Establish and document monitoring points at locations that are consistent with the conditions of the license issued by DNRM&W for the low flow channel and are suitable for the monitoring program reviewed by the administering authority. (c) Monitoring in accordance with the accepted Monitoring Program must commence at least five years prior to Back Creek being diverted; (d) In addition to regular condition and trend surveillance monitoring, the monitoring program results should also enable assessment of the establishment of the aquatic and riparian zones in the diverted section of Back Creek; (e) After Back Creek has been diverted and in the event that monitoring results indicate a significant decline in the pre-determined values or ecological condition of Back Creek, or indicates any other significant ecological impact, the monitoring program must include provisions for action to address the actual or potential harm to Back Creek and	Low flow channel design has been completed. A scope of monitoring to be undertaken during the different periods of construction has been outlined in the Back Creek Detailed Design Report. Back Creek monitoring program developed and submitted in October 2008. Back Creek baseline monitoring has been undertaken by Alluvium.	Monitoring to be undertaken in the phases • Baseline Monitoring • Construction Monitoring • Operations Monitoring • Relinquishment Monitoring

No	Environmental Authority Condition	Control Strategy	Action Program
	downstream reaches.		
C31	**Regulated Structures (dams and levees)** 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— ESR/2016/1933 at the following times: (a) prior to the design and construction of the structure; or (b) prior to any change in its purpose or the nature of its stored contents.	All current and planned dams/levees on site have been assessed according to the Manual for assessing consequence categories and hydraulic performance of structures – ESR/2016/1933 at the relevant time.	Assessments for future structures will be undertaken in accordance with this condition.
C32	The 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.	All current and planned dams/levees on site have been assessed and certified according to the Manual for assessing consequence categories and hydraulic performance of structures – ESR/2016/1933 at the relevant time.	Assessments for future structures will be undertaken in accordance with this condition.
C33	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 (ESR/2016/1933).	Downer Mining has engaged Engeny / Proterra to undertake this work as they are suitable qualified and experienced.	Certification will be provided in accordance with this condition during the term of the PoO.
C34	**Assessing Design and Construction of a Regulated 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 Manual for assessing consequence categories and hydraulic performance of structures (ESR/2016/1933).	All current and planned regulated structures (such as dams/levees) on site have been assessed according to the Manual for assessing consequence categories and hydraulic performance	Assessments for future structures will be undertaken in accordance with this condition.

No	Environmental Authority Condition	Control Strategy	Action Program
		of structures – ESR/2016/1933 at the relevant time.	
C35	Construction of a regulated structure is prohibited unless: (a) the holder has submitted a consequence category assessment report and certification to the administering authority; and (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 authority.	Current regulated structures have been consequence category assessed with all the required certifications, designs and operating procedures provided to the administrating authority prior to construction.	Construction of regulated structures will be undertaken in accordance with this condition during the term of the PoO.
C36	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 (ESR/2016/1933), and must be recorded in the Register of Regulated Structures.	Downer Mining has engaged Engeny / Proterra to undertake this work as they are suitable qualified and experienced. All current and planned regulated structures (such as dams/levees) on site have been assessed according to the Manual for assessing consequence categories and hydraulic performance of structures – ESR/2016/1933 at the relevant time. All regulated structures have been recorded in Commodore Mine Regulated Structure Register (8523-SE-	Certification of any future regulated structures will be undertaken in accordance with this condition during the term of the PoO. The Commodore Mine Regulated Structure Register (8523-SE-R1002) will be updated when any additional regulated structures is planned and/or commissioned on site.

No	Environmental Authority Condition	Control Strategy	Action Program
		R1002).	
C37	Regulated structures must: (a) be designed and constructed in compliance with the Manual for assessing consequence categories and hydraulic performance of structures (ESR/2016/1933); (b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of: (i) floodwaters from entering the regulated dam from any watercourse or drainage line; and (ii) wall failure due to erosion by floodwaters arising from any watercourse or drainage line. (c) for regulated dams that are dams associated with a failure to contain – seepage: 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.	Personnel from Engeny/Proterra have been subcontracted by Downer Mining to undertake this work, as they are deemed to be suitably qualified and experienced. All current regulated structures have been designed and constructed to ensure all requirements are met under condition C37.	Any future regulated structures will be designed and constructed appropriately by a suitably qualified and competent person for the duration of the PoO.
C38	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: (a) the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure; and (b) construction of the regulated structure is in accordance with the design plan	Personnel from Engeny/Proterra have been subcontracted by Downer Mining to undertake this work, as they are deemed to be suitably qualified and experienced. After construction of a regulated structure, the certification will be	Certifications will be provided to the administering authority in accordance of these conditions during the term of the PoO.

No	Environmental Authority Condition	Control Strategy	Action Program
		provided to the Millmerran Power Partners who will provide to the administering authority, with a statement that confirms the "as constructed" drawings and specifications meet the original intent of the design plan, and the regulated structure is constructed in accordance with the design plan.	
C39	**Notification of Affected Persons** All affected persons must be provided with a copy of the emergency action plan in place for each regulated structure (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.	"Affected persons" encompasses personnel on Commodore Mine. All affected persons have access to the Emergency Management Plan (8523-SE-PLA1002), and are notified of significant amendments within five business days.	If the Emergency Management Plan is amended, or a new regulated structure is commissioned, all affected persons will be notified and provided with the amended Emergency Management Plan.
C40	**Operation of a Regulated Structure** Operation of a regulated structure is prohibited unless the holder has submitted to the administering authority: (a) one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with **condition C33**; (b) a set of 'as constructed' drawings and specifications; (c) certification of those 'as constructed drawings and specifications' in accordance with	Operation of all current regulated structures only commenced following the provision of the certifications, design plans, as constructed drawings / specifications, and written confirmation that the compliance requirements of the	Operation of any regulated structure/s will be undertaken in accordance with this condition during the term of the PoO.

No	Environmental Authority Condition	Control Strategy	Action Program
	condition C38; (d) 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; (e) written confirmation that the requirements of this authority relating to the construction of the regulated structure have been met; (f) written confirmation that the holder has entered the details required under this authority, into a Register of Regulated Dams; and (g) there is a current operational plan for the regulated structures.	regulated structure have been met to Millmerran Power Partners who have provided them to the administering authority. No regulated structures on site are part of an integrated containment system for the purpose of sharing the DSA volume across the system. All regulated structures have recorded in Commodore Mine Regulated Structure Register (8523-SE-R1002). The Water Trigger Action Response Plan (8523-SE-PLA1011) outlines the operation plan for the regulated structures.	
C41	Each regulated structure must be maintained and operated, for the duration of its operational life until decommissioned and rehabilitated, in compliance with the current operational plan and, if applicable, the current design plan and associated certified 'as constructed' drawings.	Regulated structures are inspected on an annual basis by a suitably qualified and competent person.	Any actions highlighted from this annual inspection will be completed or implemented as specified in the annual inspection report.
C42	**Mandatory Reporting Level** **Conditions C43 to C46** inclusive only apply to Regulated Structures which have not been	No regulated structure at Commodore Mine has a Mandatory Reporting	Should a regulated structure be required to have a Mandatory

No	Environmental Authority Condition	Control Strategy	Action Program
	certified as low consequence category for 'failure to contain – overtopping'.	Level.	Reporting Level, it will be managed according to this condition during the term of the PoO.
C43	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.	No regulated structure at Commodore Mine has a Mandatory Reporting Level.	Should a regulated structure be required to have a Mandatory Reporting Level, it will be managed according to this condition during the term of the PoO.
C44	The holder of this environmental authority must, as soon as practicable and within **forty-eight (48) hours** of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.	No regulated structure at Commodore Mine has a Mandatory Reporting Level.	Should a regulated structure be required to have a Mandatory Reporting Level, it will be managed according to this condition during the term of the PoO.
C45	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.	No regulated structure at Commodore Mine has a Mandatory Reporting Level.	Should a regulated structure be required to have a Mandatory Reporting Level, it will be managed according to this condition during the term of the PoO.
C46	The holder must record any changes to the MRL in the Register of Regulated Structures.	No regulated structure at Commodore Mine has a Mandatory Reporting Level.	Should a regulated structure be required to have a Mandatory Reporting Level, it will be managed according to this condition during the term of the PoO.

No	Environmental Authority Condition	Control Strategy	Action Program
C47	**Design Storage Allowance** 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**.	There are no regulated dams at Commodore Mine. However, all dam levels are surveyed and available storage calculated regularly over the November to May period, and records are kept electronically. Performance of dams is assessed on the basis of available storage all year round with particular emphasis on the period from November to May.	Should a regulated dam be constructed on site, it will be managed according to this condition during the term of the PoO.
C48	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 Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems).	There are no regulated dams or network of linked containment systems with shared DSA volume at Commodore Mine. However, all dam levels are surveyed, and available storage calculated regularly over the November to May period, and records are kept electronically.	Should a regulated dam be constructed on site, it will be managed according to this condition during the term of the PoO.
C49	The holder must, as soon as practicable but within **forty-eight (48) hours** of becoming aware that the regulated dam (or network of linked containment systems) will not have the	There are no regulated dams or network of linked	Should a regulated dam be constructed on site,

No	Environmental Authority Condition	Control Strategy	Action Program
	available storage to meet the DSA volume on 1 November of any year, notify the administering authority.	containment systems with shared DSA volume at Commodore Mine. However, all dam levels are surveyed, and available storage calculated regularly over the November to May period, and records are kept electronically.	it will be managed according to this condition during the term of the PoO.
C50	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.	There are no regulated dams or network of linked containment systems with shared DSA volume at Commodore Mine. However, all dam levels are surveyed, and available storage calculated regularly over the November to May period, and records are kept electronically.	Should a regulated dam be constructed on site, it will be managed according to this condition during the term of the PoO.
C51	**Annual Inspection Report** Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.	Personnel from Engeny / Proterra have been subcontracted by Downer Mining to undertake this work, as they are deemed to be suitably qualified and experienced. Each regulated structure is inspected annually by a	Each regulated structure will continue to be inspected on an annual basis in accordance with this condition during the term of the PoO. Any actions highlighted from this annual

No	Environmental Authority Condition	Control Strategy	Action Program
		suitably qualified and experienced person.	inspection will be completed or implemented as specified in the annual inspection report.
C52	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.	Personnel from Engeny / Proterra have been subcontracted by Downer Mining to undertake this work, as they are deemed to be suitably qualified and experienced. Each regulated structure is inspected, and a report provided on annually regarding the condition and adequacy of the regulated structure by a suitably qualified and experienced person.	Downer Mining will continue to engage Engeny / Proterra to inspect and report on the condition of the regulated structure, with recommendations, in accordance with this condition during the term of the PoO.
C53	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 (ESR/2016/1933).	Personnel from Engeny / Proterra have been subcontracted by Downer Mining to undertake this work, as they are deemed to be suitably qualified and experienced. Engeny/Proterra will provide a certified report relating to the annual inspection of each regulated structure.	Engeny / Proterra will continue to provide a certified report relating to the annual inspection of each regulated structure in accordance with this condition during the term of the PoO.

No	Environmental Authority Condition	Control Strategy	Action Program
C54	The 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; and (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 holder, provide this to the administering authority within ten (10) business days of receipt of the request.	Millmerran Power Partners and the administering authority will be provided with a report (including any associated action plans) within 20 business days of receiving the annual inspection report of the regulated structures.	If required, the administering authority will be provided with the full annual inspection report within ten business days of receipt of request. Downer Mining will provide the relevant information to Millmerran Power Partners so it can be provided to the administering authority on the basis of this condition, during the term of the PoO.
C55	**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 authority.	At this point in time it is not anticipated that there will be a transfer of this authority.	Should there be a transfer of this EA, a copy of any reports, documentation and certifications prepared under this authority will be provided to the transferee of the EA.
C56	**Decommissioning and Rehabilitation** Regulated structures must not be abandoned but be either: (a) decommissioned and rehabilitated to achieve compliance with **condition C57**; 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; and	Millmerran Power Partners is both the landholder and the holder of the environmental authority, and as such will decide whether any regulated structures are decommissioned,	All regulated structures will either be decommissioned, rehabilitated or left in-situ for use by the future landholder in accordance with this condition during the

No	Environmental Authority Condition	Control Strategy	Action Program
	(ii) it contains water of a quality that is demonstrated to be suitable for its intended use(s); and (c) the holder of the environmental authority and the landholder agree in writing that the; (i) dam will be used by the landholder following the cessation of the environmentally relevant activity(ies); and (ii) landholder is responsible for the dam, on and from an agreed date.	rehabilitated or left in-situ for future use. Not applicable during the term of this PoO.	term of the PoO. Not applicable during the term of this PoO.
C57	**Register of Regulated Structures** A Register of Regulated Structures must be established and maintained by the holder for each regulated dam.	Downer Mining has established and maintains an up to date Regulated Structure Register (8523-SE-R1002).	The Commodore Mine Regulated Structure Register (8523-SE-R1002) will be updated should any additional regulated structures be commissioned, or any changes made to the registered regulated structures on site.
C58	The holder of this environmental authority must provisionally enter the required information in the Register of Regulated Dams when a design plan for a regulated dam is submitted to the administering authority.	Downer Mining has established and maintains an up to date Regulated Structure Register (8523-SE-R1002) which contains all the information for constructed regulated structures as well as planned regulated structures.	When future design plans are submitted to the administering authority, the required information will be provisionally included in the Commodore Mine Regulated Structure Register (8523-SE-R1002).
C59	The holder of this environmental authority must make a final entry of the required information in the Register of Regulated Dams once compliance with **condition C40** has been achieved.	Downer Mining has established and maintains an up to date Regulated Structure Register (8523-SE-R1002).	Following compliance with C40, the information for the regulated structure will be updated and

No	Environmental Authority Condition	Control Strategy	Action Program
			finalised in the Commodore Mine Regulated Structure Register (8523-SE-R1002).
C60	The holder of this environmental authority must ensure that the information contained in the Register of Regulated Dams is current and complete on any given day.	Downer Mining has established and maintains a Regulated Structure Register (8523-SE-R1002) that is current and complete on any given day.	The Commodore Mine Regulated Structure Register (8523-SE-R1002) will be maintained so that it is current and complete on any given day according to this condition during the term of the PoO.
C61	All entries in the Register of Regulated Dams must be approved by the chief executive officer for the holder of this authority, or their delegate, as being accurate and correct.	Prior to the Commodore Mine Regulated Structure Register (8523-SE-R1002) being finalised, it is sent to appropriate Millmerran Power Partners representatives for approval.	Appropriate representatives from Millmerran Power Partners will approve the Register in accordance with this condition during the term of the PoO.
C62	The holder of this environmental authority 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 Dams, in the electronic format required by the administering authority.	Downer Mining will provide Millmerran Power Partners with the current Commodore Mine Regulated Structure Register (8523-SE-R1002) when requested for the annual return.	Millmerran Power Partners is the holder of this environmental authority, and as such will provide this register with the annual return.

No	Environmental Authority Condition	Control Strategy	Action Program
C63	**Transitional Arrangements** 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 (6) months** of amendment of the authority adopting this schedule.	Downer Mining engaged Engeny to undertake the Consequence Category Assessment (CCA) of all pre-existing structures. All existing structures have been assessed in accordance with the Manual for Assessing Hazard Categories and Hydraulic Performance.	All existing structures have been assessed in accordance with this condition. Assessments for future structures will be undertaken in accordance with C31.
C64	All existing structures must subsequently comply with the timetable for any further assessments in accordance with the Manual specified in **Schedule C - Table 7 (Transitional hydraulic performance requirements for existing structures)**, depending on the consequence category for each existing structure assessed in the most recent previous certification for that structure.	Downer Mining engaged Engeny to undertake the Consequence Category Assessment (CCA) of all pre-existing structures. All existing structures have been assessed in accordance with the Manual for Assessing Hazard Categories and Hydraulic Performance. The CCA report from Engeny has not specified the requirements for any further assessment.	Should any structure require further assessment as recommended by a suitably qualified and experienced person, it will be undertaken in accordance with this condition during the term of the PoO.
C65	**Table 7** ceases to apply for a structure once any of the following events has occurred: (a) it has been brought into compliance with the hydraulic performance criteria applicable to the structure under the Manual; or	All regulated structures are compliant with the hydraulic performance criteria applicable to the structure under the	Should any structure require further assessment as recommended by a suitably qualified and

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td>(b) it has been decommissioned; or
(c) it has been certified as no longer being assessed as a regulated structure.</td><td>Manual.</td><td>experienced person, it will be undertaken in accordance with this condition during the term of the PoO.</td></tr>
<tr><td>C66</td><td>Certification of the transitional assessment required by Conditions C63 and C64 (as applicable) must be provided to the administering authority within six (6) months of amendment of the authority adopting this schedule.

Schedule C – Table 7 – Transitional hydraulic performance requirements for existing structures
<table>
<tr><td colspan="4">Transition period required for existing structures to achieve the requirements of the Manual for Assessing Consequence Categories and Hydraulic Performance of Dams</td></tr>
<tr><td>Compliance with criteria</td><td>High consequence</td><td>Significant consequence</td><td>Low consequence</td></tr>
<tr><td>>90% and a history of good compliance performance in last 5 years</td><td>No transition required</td><td>No transition required</td><td>No transitional conditions apply. Review consequence assessment every 7 years.</td></tr>
<tr><td>>70%-≤90%</td><td>Within 7 years, unless otherwise agreed with the administering authority, based on no history of unauthorised releases.</td><td>Within 10 years, unless otherwise agreed with the administering authority, based on no history of unauthorised releases.</td><td>No transitional conditions apply. Review consequence assessment every 7 years.</td></tr>
<tr><td>>50-≤70%</td><td>Within 5 years unless otherwise agreed with the administering authority, based on no history of unauthorised releases.</td><td>Within 7 years unless otherwise agreed with the administering authority, based on no history of unauthorised releases.</td><td>Review consequence assessment every 7 years.</td></tr>
</table></td><td>Downer Mining engaged Engeny to undertake the Consequence Category Assessment (CCA) of all pre-existing structures.

All existing structures have been assessed in accordance with the Manual for Assessing Hazard Categories and Hydraulic Performance.

This CCA report was finalised within the six month period outlined and has not specified the requirements for any further assessment.</td><td>Should any structure require further assessment as recommended by a suitably qualified and experienced person, it will be undertaken in accordance with this condition during the term of the PoO.</td></tr>
</table>

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td>
<table>
<tr><td>≤50%</td><td>Within 5 years or as per compliance requirements (e.g. TEP timing).</td><td>Within 5 years or as per compliance requirements (e.g. TEP timing).</td><td>Review consequence assessment every 5 years.</td></tr>
<tr><td>Regulated levee designed to prevent the ingress of clean flood water <100% compliant*</td><td colspan="3">Within 5 years unless otherwise agreed with the administering authority.</td></tr>
</table>
NOTE: * Levees designed for the diversion of contaminated waters or protection of the structural integrity of a dam are not to be considered as part of this provision. These levees are considered a key design element of the relevant dam and transitional periods should as such align to that relevant compliance criteria and consequence category.</td><td></td><td></td></tr>
<tr><td colspan="4">Schedule D – Agency interest: Noise and Vibration</td></tr>
<tr><td>D1</td><td>Subject to Conditions D2 and D3 noise from mining activities must not cause an environmental nuisance at any sensitive place or commercial place.</td><td>Noise monitoring will be conducted on a complaint basis.

The nearest residents will be informed of any changes to mine operations that have the potential to cause a significant change to noise emissions.

Mine scheduling will be also used to minimise noise impacts on surrounding areas.

Any complaints regarding noise will be recorded as an incident. All complaints will be responded to and all legitimate complaints will be investigated. Where</td><td>Should a complaint relating to noise be received, it will be registered as an incident, reported to the administering authority, investigated and any remedial actions taken and reported back to the complainant and the administering authority.

Any noise monitoring will be undertaken in accordance with Australian Standards and industry guidelines.</td></tr>
</table>

No	Environmental Authority Condition	Control Strategy	Action Program
		appropriate corrective actions will be implemented.	
D2	When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place or commercial place, and the results must be notified within **fourteen (14) days** to the administering authority following completion of monitoring.	The Project will carry out noise monitoring within a reasonable and practicable timeframe nominated by the administering authority to investigate any noise complaint.	In the event of a complaint or administering authority request, Millmerran Power Partners will implement noise monitoring within a reasonable timeframe nominated by the administering authority. Monitoring will be conducted in accordance with Australian Standards. Analysis and interpretation of monitoring results shall be undertaken to measure compliance with EA conditions. The investigation monitoring point/s will be located as close as reasonably practicable to the location of the complaint. The investigation report will be submitted to the

No	Environmental Authority Condition	Control Strategy	Action Program
			administering authority.
D3	If the environmental authority holder can provide evidence through monitoring that the limits defined in **Schedule D - Table 1** are not being exceeded, then the holder is not in breach of **Condition D1.** Monitoring and analysis must provide: a) Determination of $L_{Ar, 1hr}$ for noise from mining activities at the sensitive place or commercial place by: (i) Manned monitoring at a noise sensitive place or commercial place by a suitably qualified person and all noises noted in a log; and (ii) Simultaneously with (i), measuring noise from activities at ML50151 at a site between ML50151 and a sensitive or commercial place considered appropriate by the administering authority to determine the 'signature' of noise from activities on ML50151; (iii) Narrow band analysis of (i) and (ii) to identify the noise 'signature' of the power station and other noise sources; and (iv) Removal of the identified noise 'signature' of the power station and other noises identified by (i) and (ii) as not emanating from ML50151 from the noise level measured at the sensitive place or commercial place. b) The level and frequency of occurrence of impulsive or tonal noise; c) Atmospheric conditions including temperature, wind speed and direction; and d) Location, date and time of recording.	If triggered by a complaint, noise monitoring will be undertaken to determine compliance within the limits defined in Schedule D – Table 1.	In the event of a complaint or administering authority request, Millmerran Power Partners will implement noise monitoring within a reasonable timeframe nominated by the administering authority. Monitoring will be conducted in accordance with Australian Standards. Analysis and interpretation of monitoring results shall be undertaken to measure compliance with EA conditions. The investigation monitoring point/s will be located as close as reasonably practicable to the location of the complaint. The investigation report will be submitted to the administering authority.

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td>D4</td><td>If monitoring indicates exceedance of the limits in Schedule D - Table 1 due to the contribution from ML50151, then the environmental authority holder must:
a) resolve the complaint with the use of appropriate dispute resolution techniques to the satisfaction of the administering authority; or
b) Implement noise abatement measures so that emissions of noise from the activity do not result in exceedance of the limits in Schedule D - Table 1.</td><td>If triggered by a complaint, the use of appropriate dispute resolution techniques will be implemented to the satisfaction of the administering authority.

If necessary, additional abatement measures will be identified and implemented following conclusion of any incident investigation.</td><td>If triggered by a complaint, the use of appropriate dispute resolution techniques will be implemented to the satisfaction of the administering authority.

If necessary, additional abatement measures will be identified and implemented following conclusion of any incident investigation.</td></tr>
<tr><td>D5</td><td>The method of measurement and reporting of noise levels must comply with the latest edition of the Department of Environment and Science’s Noise Measurement Manual.

Schedule D - Table 1 – Noise limits for ML50151
<table>
<tr><td colspan="7">Sensitive place</td></tr>
<tr><td rowspan="2">Noise level dB (A) measured as:</td><td colspan="3">Monday to Saturday</td><td colspan="3">Sundays and public holidays</td></tr>
<tr><td>7am - 6pm</td><td>6pm - 10pm</td><td>10pm - 7am</td><td>7am - 6pm</td><td>6pm - 10pm</td><td>10pm - 7am</td></tr>
<tr><td>$L_{Ar,1hr}$</td><td>45</td><td>40</td><td>35</td><td>40</td><td>40</td><td>35</td></tr>
<tr><td colspan="7">Commercial place</td></tr>
<tr><td rowspan="2">Noise level dB (A) measured as:</td><td colspan="3">Monday to Saturday</td><td colspan="3">Sundays and public holidays</td></tr>
<tr><td>7am - 6pm</td><td>6pm - 10pm</td><td>10pm - 7am</td><td>7am - 6pm</td><td>6pm - 10pm</td><td>10pm - 7am</td></tr>
<tr><td>$L_{Ar,1hr}$</td><td>50</td><td>45</td><td>40</td><td>50</td><td>45</td><td>40</td></tr>
</table>
Schedule D - Table 2 (Airblast overpressure level - 'Sensitive place or Commercial place')
<table>
<tr><th>Noise parameter</th><th>Monday to Friday 9am - 4pm
Saturday 9am - 3pm</th><th>Sundays and public holidays</th></tr>
<tr><td>Air blast overpressure level (dB linear peak)</td><td>115dB (80th percentile)</td><td rowspan="2">No blasting permitted</td></tr>
<tr><td>Air blast overpressure level (dB linear peak)</td><td>120dB (maximum)</td></tr>
</table></td><td>Measurements and reporting of noise levels are in compliance with the latest version of the Noise Measurement Manual.

Downer Blasting Services (DBS) undertakes airblast overpressure monitoring at specified sensitive places during a blast.

All blast monitoring records are kept electronically and assessed according to the limits outlined in the EA.</td><td>All measurements and reporting will comply with the latest version of Noise Measurement Manual.

Should limits be exceeded, Millmerran Power Partners is notified immediately, so they can advise the administering authority.</td></tr>
</table>

No	Environmental Authority Condition	Control Strategy	Action Program
	NOTE: The method of measurement and reporting of noise levels must comply with the latest editions of the Department of Environment and Heritage Protection's Noise Measurement Manual.		
D6	**Vibration Nuisance** Subject to **Conditions D7 and D8** vibration from the mining activity must not cause an environmental nuisance, at any sensitive or commercial place.	Vibration monitoring will be conducted on a complaint basis. The nearest residents will be informed of any changes to mine operations that have the potential to cause a significant change to vibration emissions. Blast scheduling will be also used to minimise vibration impacts on surrounding areas.	Should a complaint relating to vibration be received, it will be registered as an incident, reported to the administering authority, investigated and any remedial actions taken and reported back to the complainant and the administering authority.
D7	When requested by the administering authority, vibration monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within **fourteen (14) days** to the administering authority following completion of monitoring.	The Project will carry out vibration monitoring within a reasonable and practicable timeframe nominated by the administering authority to investigate any noise complaint. Results will be reported to the administering authority within 14 days of completion of monitoring.	In the event of a complaint or administering authority request, Millmerran Power Partners will implement vibration monitoring within a reasonable timeframe nominated by the administering authority. Monitoring will be conducted in accordance with Australian Standards.

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td></td><td></td><td>Analysis and interpretation of monitoring results shall be undertaken to measure compliance with EA conditions.

The investigation monitoring point/s will be located as close as reasonably practicable to the location of the complaint.

The investigation report will be submitted to the administering authority.</td></tr>
<tr><td>D8</td><td>Blasting must be undertaken in accordance with Schedule D - Table 3.

Schedule D - Table 3 (Vibration limits - 'Sensitive place or Commercial place')
<table>
<tr><th>Vibration parameter</th><th>Monday to Friday 9am - 4pm
Saturday 9am - 3pm</th><th>Sundays and public holidays</th></tr>
<tr><td>Houses and low rise residential buildings and commercial buildings not included below</td><td>10mm/s
peak particle velocity</td><td rowspan="2">No blasting permitted</td></tr>
<tr><td>Commercial and industrial buildings or structures of reinforced concrete or steel construction</td><td>25mm/s
peak particle velocity</td></tr>
</table></td><td>Downer Blasting Services (DBS) undertakes vibration monitoring at specified sensitive places during a blast.

All blast monitoring records are kept electronically and assessed according to the limits outlined in the EA.</td><td>Should limits be exceeded, Millmerran Power Partners will be notified immediately, so they can advise the administering authority.</td></tr>
<tr><td>D9</td><td>If the environmental authority holder can provide evidence through monitoring, that the limits defined in Schedule D –Table 2 and Table 3 are not being exceeded, then the holder is not in breach of Condition D6. Monitoring must include:
a) Location of the blast/s within the mining area (including which bench level);
b) Atmospheric conditions including temperature, % cloud cover, relative humidity and</td><td>Downer Blasting Services (DBS) undertakes vibration monitoring at specified sensitive places during a blast.</td><td>Should limits be exceeded, Millmerran Power Partners is notified immediately, so they can advise the administering authority.</td></tr>
</table>

No	Environmental Authority Condition	Control Strategy	Action Program
	wind speed and direction; c) Location, date and time of recording; d) Airblast overpressure levels dB (linear) peaks; and e) Peak particle velocity (mm/s).	All blast monitoring records are kept electronically and assessed according to the limits outlined in the EA. If triggered by a complaint, vibration monitoring will be undertaken to determine compliance within the limits defined in Schedule D – Table 3. If necessary, additional abatement measures will be identified and implemented following conclusion of any incident / complaint investigation.	Vibration monitoring will be undertaken within a reasonable timeframe nominated by the administering authority in response to complaints.
D10	If monitoring indicates exceedance of the relevant limits in **Schedule D - Table 2 and Table 3**, then the environmental authority holder must: a) address the complaint including the use of appropriate dispute resolution if required; or b) immediately implement vibration abatement measures so that vibration from the activity does not result in further environmental nuisance.	Downer Blasting Services (DBS) undertakes airblast overpressure and vibration monitoring at specified sensitive places during a blast. All blast monitoring records are kept electronically and assessed according to the limits outlined in the EA. If monitoring indicates and exceedance or if a complaint is raised,	Should limits be exceeded or a complaint is raised, Millmerran Power Partners will be notified immediately, so they can advise the administering authority. If monitoring indicates and exceedance or if a complaint is raised, additional abatement measures will be identified and implemented following

No	Environmental Authority Condition	Control Strategy	Action Program
		additional abatement measures will be identified and implemented following conclusion of any incident / complaint investigation.	conclusion of any incident investigation.
Schedule E – Agency interest: Waste			
E1	A Waste Management Plan must be developed, implemented and reviewed, by a suitably qualified person(s), for all stages of mining activities and provided to the administering authority for review and comment by **31 May 2020**, and at intervals not exceeding **three (3) years** thereafter.	A Waste Management Plan (8523-SE-PLA1017) has been developed for the project by a suitably qualified person. The Waste Management Plan (8523-SE-PLA1017) is reviewed on an annual basis to ensure it addresses waste management practices for each mining stage and is currently being implemented on site.	The Waste Management Plan (8523-SE-PLA1017) is reviewed and updated on an annual basis to ensure it remains current for site waste management practices for each mining stage. The Waste Management Plan will be sent to Millmerran Power Partners so it can be forwarded to the administering authority for review prior to the 31 May 2020. Following the initial review the Waste Management Plan (8523-SE-PLA1017) will be sent to Millmerran Power Partners so it can be forwarded to the administering authority for review at intervals not exceeding three

No	Environmental Authority Condition	Control Strategy	Action Program
			years thereafter.
E2	The Waste Management Plan required by **Condition E1** must include: a) a description of the mining activities that may generate waste; b) waste management control strategies such as: i. the types and amounts of wastes generated by the mining activities. ii. segregation of the wastes. iii. storage of the wastes. iv. disposal of the wastes. v. transport of the wastes. vi. monitoring and reporting matters concerning the wastes. c) the hazardous characteristics of the wastes generated including disposal for hazardous wastes; d) a program for reusing, recycling or disposing of all wastes; e) how the waste will be dealt with in accordance with the waste management hierarchy, including a description of the types and amounts of waste that will be dealt with under each of the waste management practices in the waste management hierarchy (that is, avoidance, reuse, recycling, energy recovery and disposal); f) procedures for identifying and implementing opportunities to minimise the amount of waste generated, promote efficiency in the use of resources and improve the waste management practices employed; g) procedures for dealing with accidents, spills and other incidents; h) details of any accredited management system employed, or planned to be employed,	A Waste Management Plan (8523-SE-PLA1017) has been developed for the project by a suitably qualified person to address all the requirements specified in Condition E2.	The Waste Management Plan (8523-SE-PLA1017) is reviewed and updated on an annual basis to ensure it remains current for site waste management practices for each mining stage.

No	Environmental Authority Condition	Control Strategy	Action Program
	to deal with waste; i) how often the performance of the waste management plan will be assessed; j) the indicators or other criteria on which the performance of the waste management plan will be assessed; and k) staff training and induction to the waste management plan.		
E3	Within **twenty (20) business days** of receiving comments from the administering authority as per **Condition E1**, the Waste Management Plan must be updated to address the comments, amended to adopt any recommendations and submitted to the administering authority.	The Waste Management Plan (8523-SE-PLA1017) is updated immediately following the receipt of any comments from the administering authority so the amended document can be provided to Millmerran Power Partners with 20 business days of receipt of the comments being received from the administering authority.	The Waste Management Plan (8523-SE-PLA1017) will be updated immediately following the receipt of any comments from the administering authority. The amended document will be provided to Millmerran Power Partners so they can provide it to the administering authority within 20 business days of receiving the comments from the administering authority.
E4	Mine waste must be managed in accordance with the Waste Management Plan required by **Condition E1**.	Site management has only engaged waste contractors licensed under the *Environmental Protection Act 1994* to remove waste from the site.	Licensed waste contractors will only be used during the term of the PoO. All mine waste will continue to be

No	Environmental Authority Condition	Control Strategy	Action Program
		A record of the contractor's current licence will be held electronically on the Central Filing System (CFS). All mine waste is managed in accordance with the Waste Management Plan (8523-SE-PLA1017). Compliance with the Waste Management Plan (8523-SE-PLA1017) is verified through monthly inspections (8523-DM-SE-F87) and the Monthly Compliance Report (8523-DM-SE-F190).	managed in accordance with the Waste Management Plan (8523-SE-PLA1017).
E5	**Monitoring of lysimeters/piezometers** The following lysimeter or piezometer must be installed within the buried ash. A minimum of four lysimeters or piezometers must be installed at separate locations where ash is buried in-pit. The first in-pit lysimeter or piezometer will be installed during mining years 0 – 7, the second in-pit lysimeter or piezometer will be installed during mining years 7 – 14, the third in-pit lysimeter or piezometer will be installed during mining years 14 – 21, and the fourth in-pit lysimeter or piezometer will be installed during mining years 21 – 30.	Five piezometers have been installed at separate locations where ash is buried in pit and will be monitored in accordance with the Environmental Authority (EA).	Should any additional piezometer be required or should any piezometers require replacing this will be undertaken in accordance with this condition during the term of the PoO.
E6	Should water be identified in the monitoring bores, where the presence is not attributed to bore failure, monitoring should be undertaken in order to monitor leachate on, at least, six monthly intervals. Monitoring shall include basic water content and the water quality parameters of Boron, Molybdenum and Selenium (as mg/L).	Piezometers are monitored for leachate (presence of water) on a six-monthly basis. Records of piezometer	Should water be identified in the monitoring bores, where the presence is not attributed to bore failure, monitoring

No	Environmental Authority Condition	Control Strategy	Action Program
		monitoring are kept and maintained electronically on the CFS.	should be undertaken and include basic water content and the water quality parameters of Boron, Molybdenum and Selenium (as mg/L).
E7	**Coal Combustion Products Storage and Management** The holder of this environmental authority may store coal combustion products generated by the burning of coal at the Millmerran Power Station in voids defined in **Table E1 - Authorised coal combustion product storage locations** and **Map 4 – Authorised Disturbance Areas**.	Ash is only stored / buried in voids defined in Table E1 - Authorised coal combustion product storage locations and Map 4 – Authorised Disturbance Areas. Ash is managed according to the Ash Handling Plan (8523-SE-PLA1008). Records pertaining to the location and amount of ash stored / buried in voids are documented and maintained for verification purposes.	Downer Mining Technical Services team undertakes long-term mine planning to ensure that ash is only buried / stored in voids defined in Table E1 – Authorised coal combustion product storage locations and Map 4 – Authorised Disturbance Areas.
E8	Coal combustion products stored in voids defined in **Table E1 - Authorised coal combustion product storage locations** and **Map 4 – Authorised disturbance areas** must comply with contaminant limits defined in **Table E2 - Maximum Allowable Leaching Contaminant (TCLP) levels.** **Table E2: Maximum Allowable Leaching Contaminant (TCLP) Levels.**	Ash testing is undertaken by Millmerran Power Partners to ensure that ash that is to be stored / buried at Commodore Coal Mine complies with contaminant limits defined in Table E2 - Maximum Allowable Leaching	Millmerran Power Partners will continue to undertake ash testing as stipulated in Condition E8.

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td>
<table>
<tr><th>Contaminant</th><th><u>Maximum TCLP Value</u> (mg/L)</th></tr>
<tr><td>Silver</td><td>0.5</td></tr>
<tr><td>Arsenic</td><td>0.5</td></tr>
<tr><td>Barium</td><td>10</td></tr>
<tr><td>Cadmium</td><td>0.05</td></tr>
<tr><td>Chromium</td><td>0.5</td></tr>
<tr><td>Copper</td><td>10</td></tr>
<tr><td>Nickel</td><td>0.5</td></tr>
<tr><td>Lead</td><td>0.5</td></tr>
<tr><td>Antimony</td><td>0.5</td></tr>
<tr><td>Thallium</td><td>0.1</td></tr>
<tr><td>Zinc</td><td>50</td></tr>
<tr><td>Selenium</td><td>0.1</td></tr>
<tr><td>Mercury</td><td>0.01</td></tr>
</table>
</td><td>Contaminant (TCLP) levels.

Records pertaining to ash testing are documented and maintained by Millmerran Power Partners for verification purposes.</td><td></td></tr>
<tr><td>E9</td><td>In addition to meeting the criteria in Table E2- Maximum allowable leaching contaminant (TCLP) levels, the coal combustion products must not have any properties or contain any other contaminants at concentrations which may cause environmental harm.</td><td>Ash testing is undertaken by Millmerran Power Partners to ensure that ash that is to be stored / buried at Commodore Coal Mine do not have any properties or contain any other contaminants at concentrations which may cause environmental harm.</td><td>Millmerran Power Partners will continue to undertake ash testing as stipulated in Condition E9.</td></tr>
</table>

No	Environmental Authority Condition	Control Strategy	Action Program
		Records pertaining to ash testing are documented and maintained by Millmerran Power Partners for verification purposes.	
E10	**Ash transfer** Ash deposited and stored in a void identified in **Table E1 - Authorised coal combustion product storage locations** and **Map 4 – Authorised Disturbance Areas**, must be conditioned to approximately 20 per cent moisture content prior to being transferred from the power station site to the Commodore Coal Mine in order to minimise the release of dust emissions.	Millmerran Power Partners ensure that the ash is conditioned to approximately 20% moisture content prior to being transferred from the power station ash silos to Commodore Coal Mine via truck.	Millmerran Power Partners will continue to ensure that the ash is conditioned to approximately 20% moisture content prior to being transferred from the power station ash silos to Commodore Coal Mine via truck.
Schedule F – Agency interest: Land			
F1	**Contaminant release** Contaminants must not be released to land, except as permitted under the conditions of this environmental authority.	The Environmental Management Plan (8523-DM-SE-PLA2), Environmental Aspects Register (8523-DM-SE-REG13), Waste Management Plan (8523-SE-PLA1017), and the Emergency Management Plan (8523-SE-PLA1002) are aligned with the EA to ensure compliance is met and no environmental harm is undertaken outside of our conditions.	The Environmental Management Plan (8523-DM-SE-PLA2), Environmental Aspects Register (8523-DM-SE-REG13), Waste Management Plan (8523-SE-PLA1017), and the Emergency Management Plan (8523-SE-PLA1002) are reviewed annually and include any new legislative requirements and site activities.

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td></td><td>These documents also highlight the environmental risk associated with site activities and outline control measures to manage these risks.</td><td></td></tr>
<tr><td>F2</td><td>Rehabilitation Landform Criteria

All areas significantly disturbed by mining activities must be rehabilitated to a stable landform with self-sustaining vegetation cover in accordance with the final land description as defined in Schedule F - Table 1.

Schedule F - Table 1 (Final land use and rehabilitation approval schedule)

<table>
<tr><th>Disturbance type</th><th>Disturbance area (ha)</th><th>Pre-mine land description</th><th>Post-mine land description</th><th>Pre-mine land classification</th><th>Post-mine land classification</th></tr>
<tr><td>Residual Void</td><td>40</td><td>Predominately grazing with some cultivation</td><td>Possible water storage</td><td>II-IV</td><td>VIII</td></tr>
<tr><td>Re-Contoured spoil area</td><td>1179</td><td>Predominately grazing with some cultivation, as well as Back Creek system and local roads</td><td>Grazing with wildlife corridors</td><td>II-IV

VIII (Creek and roads)</td><td>IV (in pit)
IV-VII (out of pit)</td></tr>
<tr><td>Sediment dams</td><td>11</td><td>Predominately grazing with some cultivation</td><td>Water Storage</td><td>II-IV</td><td>VIII</td></tr>
<tr><td>Creek diversion</td><td>171</td><td>Predominately grazing with some cultivation and local roads</td><td>Creek and floodplain</td><td>II-IV</td><td>IV-VIII</td></tr>
<tr><td>Infrastructure</td><td>19</td><td>Predominately grazing with some cultivation</td><td>Infrastructure</td><td>II-IV</td><td>VIII</td></tr>
<tr><td>Regulated Structures</td><td>All areas described during operations</td><td>Predominately grazing with some cultivation, as well as Back Creek system and local roads</td><td>Grazing with wildlife corridors or Possible Water Storage</td><td>II-IV</td><td>VIII</td></tr>
<tr><td>Total disturbed area</td><td>1420</td><td></td><td></td><td></td><td></td></tr>
</table></td><td>Areas available for progressive rehabilitation to the final land use described in Schedule F - Table 1 will be undertaken at the earliest opportunity.</td><td>Progressive rehabilitation will be undertaken in accordance with Appendix C during the PoO.</td></tr>
</table>

No	Environmental Authority Condition	Control Strategy	Action Program
F3	Progressive rehabilitation must commence when areas become available within the operational land.	Areas identified in the mine plan will be progressively rehabilitated as soon as practicable.	Progressive rehabilitation will be undertaken in accordance with Appendix C during the PoO. Seeding will be timed to take advantage of the traditional summer wet season.
F4	The holder of this environmental authority must prevent the spread of Declared Plants by developing a weed control program and by ensuring that all vehicles and machinery are adequately cleaned before taking the vehicles and machinery out of a Declared Plant Area. The weed control program must list all identified weeds and weed control methods.	A Pest and Weed Management Plan (8523-SE-PLA1012) has been developed to meet the requirements of EA condition F4.	The Pest and Weed Management Plan (8523-SE-PLA1012) is reviewed and updated on an annual basis.
F5	Within **three (3) years** of the approval of this environmental authority, the environmental authority holder must complete an investigation into rehabilitation of disturbed areas and submit a report to the administering authority in accordance with conditions **F1, F2 and F3** and propose acceptance criteria to meet the outcomes and landform design criteria in **Schedule F – Table 1 and 2**.	Millmerran Power Partners submitted a report outlining acceptance criteria to meet the outcomes and landform design criteria outlined in Schedule F – Table 1 and 2 to the administering authority.	Rehabilitation will be monitored in respect to the acceptance criteria during the term of this PoO.
F6	The report submitted to the administering authority in accordance with condition (F1-4) must include the following; a) A detailed description of analogue sites that contain a representative species combination and vegetation cover to achieve the rehabilitation outcomes defined in	Millmerran Power Partners submitted a report outlining acceptance criteria to the administering authority including the requirements	Rehabilitation will be monitored in respect to the acceptance criteria during the term of this PoO.

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td>Schedule F – Table 1 and 2;

b) Methods for encouraging native fauna into rehabilitated areas (e.g. establishment of wildlife corridors etc); and

c) A measure of productivity for agricultural land uses (e.g. sustainable dry matter production, stock live weight gain).

Schedule F - Table 2 (Landform design)

<table><tr><th>Parameter</th><th>Slope Range (degrees)</th><th>Projective Surface Area (ha)</th></tr><tr><td>Residual Voids</td><td>25-63</td><td>40</td></tr><tr><td>Waste Rock Dump(s)</td><td>0-10 (out of pit)
0-5 (in pit)</td><td>1182</td></tr><tr><td>ROM area(s)</td><td><60</td><td>14</td></tr></table></td><td>stipulated in Condition F6.</td><td></td></tr>
<tr><td>F7</td><td>Within two years of the approval of this environmental authority a topsoil management plan must be submitted to the administering authority and must include the following:

a) stripping of topsoil prior to any disturbance to the depths nominated in the EM Plan

b) placement of topsoil directly onto rehabilitated areas wherever possible

c) the deep ripping and seeding of stockpiles to ensure that stockpiles are maintained free from erosion and do not become sterile, and

d) the placement of topsoil to a minimum depth of 250 mm on rehabilitated areas, capable of sustaining the final land use outcome for the relevant disturbance type nominated in Schedule F – Table 1.</td><td>A Topsoil Management SWP (8523-DM-SE-SWP18) and a Topsoil Management Plan (8523-SE-PLA1018) has been developed and submitted to the administering authority to meet the requirements of EA Condition F7.</td><td>Topsoil will be managed in accordance with the Topsoil Management SWP (8523-DM-SE-SWP18) and the Topsoil Management Plan (8523-SE-PLA1018) during the term of this PoO.</td></tr>
<tr><td>F8</td><td>Residual Void Outcome
Residual voids must comply with the following outcomes;</td><td>Voids are backfilled wherever possible through</td><td>Downer Mining Technical Services</td></tr>
</table>

<table>
<tr><th>No</th><th>Environmental Authority Condition</th><th>Control Strategy</th><th>Action Program</th></tr>
<tr><td></td><td>a) residual voids must not cause any serious environmental harm to land, surface waters or any recognised groundwater aquifer, other than the environmental harm constituted by the existence of the residual void itself, and subject to any other condition within this environmental authority; and
b) residual voids must comply with Schedule F – Table 3.</td><td>the progressive rehabilitation process.</td><td>Team undertakes long-term mine planning to ensure that voids will be backfilled wherever possible and if they are unable to be backfilled the comply with the outcomes stipulated in Condition F8.</td></tr>
<tr><td>F9</td><td>Five (5) years prior to a final void being constructed, the environmental authority holder must complete an investigation into residual voids and submit a report to the administering authority proposing acceptance criteria to meet the outcomes in Condition F8 and landform design criteria in Schedule F – Table 3.

Schedule F - Table 3 (Final void design)

<table>
<tr><th>Void identification</th><th>Void wall - competent rock slop</th><th>Void wall - incompetent rock slope</th><th>Void maximum surface area (ha)</th></tr>
<tr><td>Southern end of the East pit see Map 3</td><td>63º batters on the east and south final high wall.
The remaining batters in the final void will be reduced to an overall slop of 25º.</td><td>45º</td><td>40 hectares
The void will have a volume of approximately 8 million cubic meters.</td></tr>
</table>
</td><td>Not applicable during the term of this PoO.</td><td>Not applicable during the term of this PoO.</td></tr>
<tr><td>F10</td><td>Infrastructure
All infrastructure, constructed by or for the environmental authority holder during the mining activities including water storage structures, must be removed from the site prior to mining lease surrender, except where agreed in writing by the post mining land owner / holder.</td><td>Not applicable during the term of this PoO.</td><td>Not applicable during the term of this PoO.</td></tr>
</table>

5. Rehabilitation Program and Financial Assurance

Rehabilitation is undertaken at Commodore Coal Mine progressively as soon as the land becomes available. The pits are backfilled with overburden, interburden and ash and the final landform rehabilitated to a grazing land use in accordance with the Environmental Authority (EA). Rehabilitation undertaken to date is demonstrated in APPENDIX B - Current Rehabilitation (June 2019).

The Mine Industrial Area consists of an office, hardstand and workshops which would be suitable for the use of a trucking or earthmoving contractor, should mining discontinue at any time during the term of this Plan.

With respect to the mine road infrastructure, only the Ash Haul Road, B Pit Haul Road, Main Haul Road, Field Crib Hut Haul Road, and ROM wall and associated slabs would require final rehabilitation should mining cease. Buildings will be removed post mining due to the age and the distribution of the infrastructure. It is anticipated that the final land use for site will be pastoral, as such it is accepted that the water infrastructure (sediment ponds, dams and pipelines) will remain post mining as this infrastructure will be beneficial for this associated land use. Fencing infrastructure will remain post mining as the majority of fencing is in good condition.

The Estimated Rehabilitation Cost (ERC) is the estimated cost associated with rehabilitating the mining lease area (ML50151) to the accepted final land use (pastoral/grazing) for the year of maximum liability in a specified period. Condition A2 of the Commodore Coal Mine Environmental Authority EPML00841513 requires that the environmental authority holder has an ERC decision in effect and that the environmental authority holder has paid a contribution to the scheme fund or given a surety for the environmental authority under the *Mineral and Energy Resources (Financial Provisioning) Act 2018* and Section 297 of the *Environmental Protection Act 1994* prior to the commencement of mining operations.

The ERC for Commodore Coal Mine has been calculated in accordance with the Department of Environment and Science (DES) Guidelines: “Estimated rehabilitation cost under the *Environmental Protection Act 1994* (ESR/2018/4425)” and “ERC calculator user guide – mining (ESR/2019/4626)”. The DES “ERC calculator – mining” spreadsheet has been used to calculate the ERC amount.

The position of maximum disturbance used for the ERC calculation has been nominated as the end of the Annual Mine Plan CY19 (AMP19) period, which is September 2024. This represents the position where the liability for rehabilitation will be at its maximum, being 383 hectares. Areas of liability for rehabilitation for the purpose of this calculation are defined as the active pit, overburden dump, areas where topsoil is stripped, and areas that have been recontoured but not yet topsoiled.

Consideration for the recovery of infrastructure salvage value is not included in the setting of financial assurances under the *Environmental Protection Act 1994*.

- The financial assurance required is summarised in APPENDIX A – Financial Assurance Summary
- The financial assurance calculations are attached as APPENDIX D - Financial Assurance Calculations. The excel spreadsheet version is available upon request.

APPENDIX A – Financial Assurance Summary

Summary

The calculation for financial assurance has been completed using the Queensland governments estimated rehabilitation cost (ERC) calculator supplied through the DES website. The estimated rehabilitation cost has been calculated to be $61,158,047.24. Less previous ERC calculation gives the current ERC liability as $8,679,181.00.

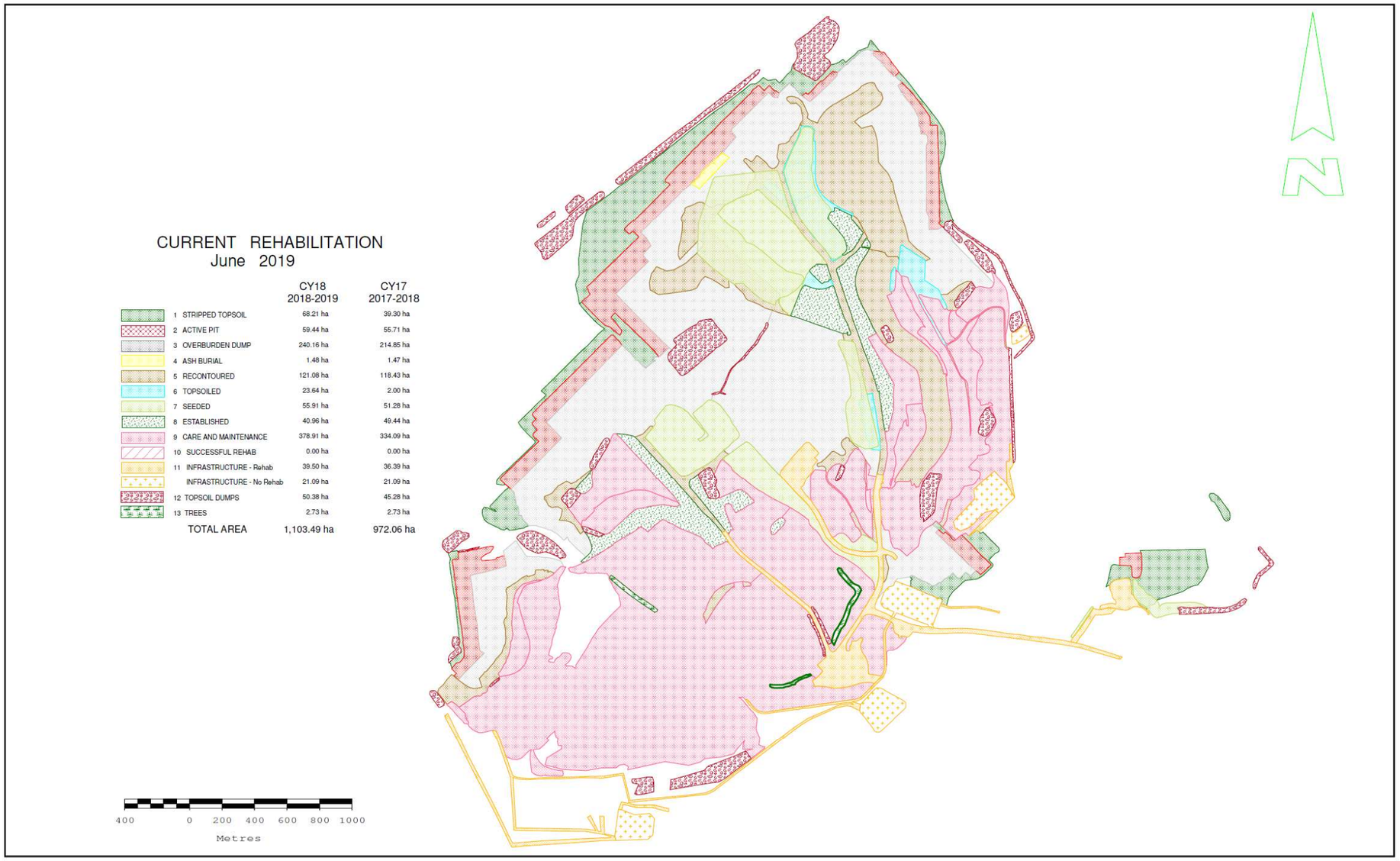
Estimated Rehabilitation Cost (ERC) Calculator for Mining

REGISTRATION

	Back to Contents	**EA Holder:**	Intergen (Australia) Pty Ltd
Environmental Authority Ref:	EPML00841513	**Site Name:**	Commodore Coal Mine
Tenure:	ML50151		
Last ERC Decision Date:	12-April-2019	**Current ERC Amount:**	$ 8,679,181.00
Site Contact:	Joel Rickuss	**Position:**	External Resources Manager
Site Address:	PO Box 196 Millmerran, QLD 4357	**Phone:**	07 4612 0314
		Email:	JRickuss@intergen.com
Alternate Project Overhead Justification:	Project Overheads and Contingency: Project Management reduced to 5% of cost. Reasons for this is based on the following: small mining site (low strip ratio and area), low strip ratio mining pit (aprox average of 3.4:1) requiring less project management issues. Environmental Maintenance and Monitoring:		

If the User enters a Project Management and / or Environmental Maintenance and Monitoring value, please provide justification above.

APPENDIX B - Current Rehabilitation (June 2019)



REV	REVISIONS	DATE
A		

Downer
Relationships creating success

104 Melbourne Street
SOUTH BRISBANE
AUSTRALIA 4101
Phone: +61 - 7 - 3026 6666

QUALITY RECORD

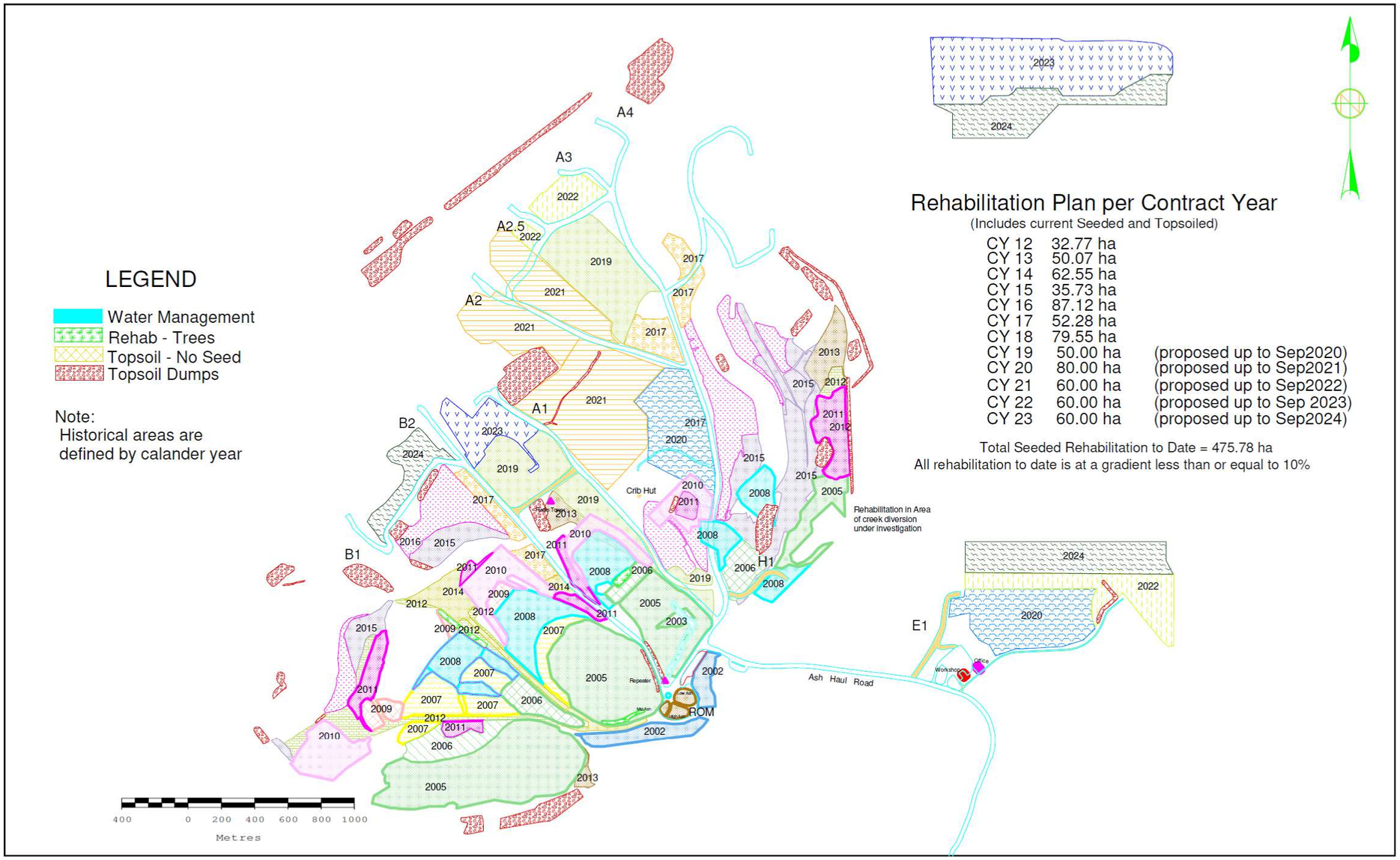
	REVIEW	NAME	SIGNATURE	DATE
DRAWN				02-Apr-2020
DWG CHECKED				
DESIGNER				
DESIGN CHECKED				

COMMENTS
Completion of the Quality Record is evidence that the design and drawing have been verified conforming with the requirements of the Quality Plan. Where the Quality Record is incomplete all information on this drawing is intended for preliminary purposes only as it is unchecked.

SCALE: 1:22500
FILE REF:
PLOT FILE:
JOB REF:
ORG. FILE SIZE:

TITLE: Commodore Mine
DESCRIPTION: Rehabilitation June 2019
DRAWING NO.:
REV A

APPENDIX C - Planned Rehabilitation (Sep19 to Aug24)



REV	REVISIONS	DATE
A		

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104 Melbourne Street
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QUALITY RECORD			
REVIEW	NAME	SIGNATURE	DATE
DRAWN	KH		02-Apr-2020
DWG CHECKED			
DESIGNER			
DESIGN CHECKED			

COMMENTS
Completion of the Quality Record is evidence that the design and drawing have been verified conforming with the requirements of the Quality Plan. Where the Quality Record is incomplete all information on this drawing is intended for preliminary purposes only as it is unchecked.

SCALE: 1:22000
TITLE: Commodore Mine
FILE REF:
JOB REF:
DESCRIPTION: Rehabilitation Plan December 2019
DRAWING NO.:
PLOT FILE:
ORIG FILE SIZE:
REV A

APPENDIX D - Financial Assurance Calculations

Estimated Rehabilitation Cost (ERC) Calculator for Mining

SUMMARY

Back to Contents | Show / Hide Rows | Total ERC: **$61,158,047**

Item	Quantity	Unit	Rate	Total Cost
Eligible Mining Activities	**Quantity**	**Unit**	**Rate**	**Total Cost**
Total	1	total	$1,706	$1,705.70
				$1,705.70
1. Exploration	**Quantity**	**Unit**	**Rate**	**Total Cost**
Seismic, Grid-Lines, Minor Tracks	0	km	$0	**$0.00**
Drillholes	294	holes	$200	**$58,800.00**
Tracks and Roads	6.480909	km	$1,746	**$11,315.67**
Water Structures	0	Item	$0	**$0.00**
Camps and Water Treatment Plants (Disturbance)	0	ha	$0	**$0.00**
				$70,115.67
2. Infrastructure	**Quantity**	**Unit**	**Rate**	**Total Cost**
Access Roads / Tracks (Defaults) - Linear Entries	0	km	**$0**	**$0.00**
Access Roads / Tracks (Defaults) - Area Entries	0	ha	**$0**	**$0.00**
Acces Roads / Tracks (User defined)	37.97	km	**$1,330**	**$50,500.80**
Mine Haul Roads (Defaults) - Linear Entries	0	km	**$0**	**$0.00**
Mine Haul Roads (Defaults) - Area Entries	0	ha	**$0**	**$0.00**
Mine Haul Roads (User Defined)	21.7	km	**$12,798**	**$277,709.79**
Laydown Yards (Defaults)	0	ha	**$0**	**$0.00**
Laydown Yards (User Defined)	17.77	ha	**$22,561**	**$400,905.65**
Borrow Pits	0	ha	**$0**	**$0.00**
Pipelines	1291	m	**$36**	**$46,112.97**
Camps	0	camps	**$0**	**$0.00**
Buildings	7	buildings	**$181,125**	**$1,267,877.43**
Communications Towers	2	towers	**$26,032**	**$52,063.61**
Disconnect Services	1	services	**$35,000**	**$35,000.00**
Power Distribution	0.761	km	**$19,199**	**$14,610.61**
Power Generation	0	m2	**$0**	**$0.00**
Concrete pads (Miscellaneous)	1593.7	m2	**$65**	**$103,590.50**
Rail Infrastructure	0	total	**$0**	**$0.00**
Landfills	0	m2	**$0**	**$0.00**
Sewage Treatment Plants	0	m2	**$0**	**$0.00**
				$2,248,371.36
3. Overburden and Waste Rock	**Quantity**	**Unit**	**Rate**	**Total Cost**
Waste Rock Dumps (Defaults)	0	ha	**$0**	**$0.00**
Waste Rock Dumps (User Defined)	0	ha	**$0**	**$0.00**
Overburden Dumps and Spoil Piles (User Defined)	0	ha	**$0**	**$0.00**
Topsoil Stockpiles (User Defined)	383	ha	**$10,763**	**$4,120,186.05**
				$4,120,186.05
4. Heap Leach Pads	**Quantity**	**Unit**	**Rate**	**Total Cost**
Heap Leach Pads (Defaults)	0	ha	**$0**	**$0.00**
Heap Leach Pads (User Defined)	0	ha	**$0**	**$0.00**
				$0.00
5. Tailings Storage Facilities	**Quantity**	**Unit**	**Rate**	**Total Cost**
Tailings Storage Facilities (Defaults)	0	ha	**$0**	**$0.00**
Tailings Storage Facilities (User Defined)	0	ha	**$0**	**$0.00**
				$0.00
6. Pits	**Quantity**	**Unit**	**Rate**	**Total Cost**
Safety Bund, Fencing and Signs	383	ha	**$1,792**	**$685,915.05**
Benches and Highwall Drill and Blast and Doze to Make Safe	0	ha	**$0**	**$13,830,900.19**
Backfill Open Pit with Waste Rock	0	ha	**$0**	**$0.00**
Low Wall Shaping / Load and Haul to Make Safe	0	ha	**$0**	**$16,870,701.33**
Open Pit Ramp Backfill	0	ha	**$0**	**$0.00**
				$31,387,516.56
7. Water Storage and Management	**Quantity**	**Unit**	**Rate**	**Total Cost**
Process Water Storage	0	structures	**$0**	**$0.00**
Raw Water Storage	0	structures	**$0**	**$0.00**
Evaporation and other Unlined Water Storage	0	structures	**$0**	**$0.00**
Others (e.g. weirs)	0	structures	**$23,719**	**$0.00**
0	0	total	**$0**	**$0.00**
Sludge (not in ponds) removal	0	m3	**$0**	**$0.00**
0	0	structures	**$0**	**$0.00**
				$0.00

8. Process Equipment	Quantity	Unit	Rate	Total Cost
Total	1	total	$250,155	$250,154.68
				$250,154.68

9. Underground Mines	Quantity	Unit	Rate	Total Cost
Total	0	total	$0	$0.00
				$0.00

10. Miscellaneous Activities	Quantity	Unit	Rate	Total Cost
Land Rehabilitation and Repair of Subsidence and Land Management	1	total	$1,780,059	$1,780,058.64
Natural Drainage and Diversions	1	total	$9,743,655	$9,743,655.00
Land Investigations	1	total	$225,132	$225,131.60
Remediation of Contaminated Areas	1	total	$1,877,796	$1,877,796.25
Miscellaneous Rehabilitation and Maintenance	1	total	$221,710	$221,710.40
Bores and Gas Drainage	0	total	$0	$0.00
Long Distance Carting of Top Soil and Rock	0	tonne	$0	$0.00
Purchase and Long Distance Carting of Lime	0	tonne	$0	$0.00
Long Distance Carting of Clay	0	tonne	$0	$0.00
Miscellaneous Scrap (not associated with facilities, buildings, pipelines etc)	0	tonne	$0	$0.00
Fencing (not included elsewhere)	0	m	$0	$0.00
				$13,848,351.89

11a. Mobilisation and Demobilisation				Total Cost
Mobilisation & Demobilisation - Small Fleet				$123,000.00
Mobilisation & Demobilisation - Medium Fleet				$0.00
Mobilisation & Demobilisation - Large Fleet				$0.00
				$123,000.00

11b. User Entered Items	Quantity	Unit	Rate	Total Cost
	0	0	$0	$0.00
	0	0	$0	$0.00
	0	0	$0	$0.00
	0	0	$0	$0.00
	0	0	$0	$0.00
	0	0	$0	$0.00
	0	0	$0	$0.00
	0	0	$0	$0.00
	0	0	$0	$0.00
	0	0	$0	$0.00
				$0.00

Total before Project Overheads and Contingency	$52,049,401.91

Project Overheads and Contingency	User Entry	Default	Total Cost
Project Management	5%	10%	$2,602,470.10
Environmental Maintenance and Monitoring	3%	5%	$1,301,235.05
Contingency		10%	$5,204,940.19

Total Estimated Rehabilitation Cost for the Site (excluding GST)	$61,158,047.24

Difference from Last ERC amount	$52,478,866.24