



Application for Works Approval

Part V Division 3 of the *Environmental Protection Act 1986*

| | |
|------------------------------|---|
| Works Approval Number | W6650/2022/1 |
| Applicant | Redcliffe Project Pty Ltd |
| ACN | 119 494 772 |
| File number | DWER2021/000746 |
| Premises | Redcliffe Gold Project Legal description Mining tenements M37/1276, M 37/1286, M37/1295, M37/1348, M37/233 As defined by the premises maps attached to the issued works approval |
| Date of report | 4 November 2022 |
| Decision | Works approval granted |

**A/MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W6650/2022/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary and overview of premises

On 23 December 2021, Redcliffe Project Pty Ltd (the applicant) submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works relating to mine dewatering, a sewage facility and putrescible landfill. Specifics on the proposed works and other applicable activities are listed below.

The department has not included the disposal of tyres in waste rock dumps in the assessment of this works approval as proposed by the applicant. It is recommended that this activity is applied for when the applicant is ready to submit a licence application for ongoing operations.

The works are to support the commencement of mining at the Redcliffe Gold Project. The Redcliffe Gold Project comprises of two deposits at the Hub and Golden Terrace South (GTS) situated approximately 50 kilometres (kms) north of Leonora in the Goldfields region of Western Australia.

The applicant has not proposed processing or beneficiation of ore or disposal of tailings at the premises. Ore will be transported and processed offsite at the Mt Morgans Gold Project, operated by Mount Morgans WA Mining Pty Ltd. They hold licence L9010/2016/1 which authorises the processing or beneficiation of ore or disposal of tailings up to 3.5 million tonnes per annual period.

The premises relates to the categories and assessed production / design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6650/2022/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6650/2022/1.

Category 6 - Mine dewatering

Dewatering is proposed to allow for mining at the Hub and GTS deposits. There will be approximately 943 mega litres (ML) 943,000 tonnes (t) of dewater effluent generated over the life of the mining activities (two years). The applicant expects there to be 521 ML (521,000 t) of dewater effluent from Hub and 422 ML (422,000 t) of dewater effluent from the GTS.

The dewater effluent will be transferred for disposal from the Hub and GTS pits via dewatering pipelines and:

- discharged into open pits (disused mine voids) named Redcliffe, Mesa and Mertondale 5;
- directly discharged to land for dust suppression / watering of waste rock landforms;

- mixed with RO Brine or truck washdown water (contaminated with hydrocarbons) within lined turkeys' nests or dams.

Figure 1 below shows where/how the dewater effluent from the Hub and GTS will be disposed of. 934ML of dewater effluent requires disposal and the pits provide a total capacity of 3,033 ML. Due to the location of the deposits to be mined (Hub and GTS) and the pits where the dewater effluent will be disposed of it is intended that dewater effluent from the Hub is disposed of to the Mesa and Redcliffe pits and dewater effluent from GTS is disposed of to Mertondale 5 pit.

Given that the volume of dewater effluent generated from the Hub will exceed the capacity available at the Mesa and Redcliffe pits (by 186ML, as listed in Figure 1), the applicant has indicated that this excess water will be used for dust suppression activities. The applicant anticipates approximately 312 ML of water could be used for dust suppression activities.

| Water Source | Volume to Discharge (ML) | Destination | Comments |
|--------------|--------------------------|---|---|
| Hub | 149 | Mesa Pit* | Pit currently empty so water will fill to capacity. This will include approximately 31 ML of brine from Hub RO plants. |
| | 186 | Redcliffe Pit* | Via Washdown Facility - storage of hydrocarbon contaminated water |
| | 186 | Dust Suppression or Waste Landform Watering | Our preference would be for water to be used for dust suppression as its likely to have less environmental impact |
| GTS | 422 | Mertondale 5 pit | Volume only accounts for 15% of total capacity. No issues with mixing of water sources with respect to contaminant concentrations |

Figure 1: Management of dewater effluent – volumes and disposal location

Disposal of Truck washdown water

A portion of the dewater effluent is proposed to be used/mixed with the waste stream from vehicle washdown areas (within a turkey's nest/dam) prior to disposal to the pits. Following treatment in an oily water separator the water (mixed dewater and wastewater from vehicle washdown) will also be discharged into the open pits (Mesa Pit and Redcliffe Pit). Approximately 139-191 ML of hydrocarbon contaminated water from the truck washdown facility will require disposal. A portion of this mixed water may also be used for dust suppression.

Disposal of brine (liquid effluent)

The applicant proposes to dispose of RO brine to land through dust suppression activities or disposal directly into the Mesa or Redcliff pits.

Brine will be a waste output from the treatment of the dewatering effluent in a reverse osmosis plant located at the mine village approximately 5km to the south of the Hub development area. The applicant indicates that the treatment of the dewater (a portion of the dewatering effluent) will occur so it can be used as water for potable uses at the premises.

The applicant has stated within their application that they may dilute the RO brine with dewater from the Hub within a turkey's nest prior for use for dust suppression. It is unclear if this will occur and therefore the department has assessed the impact of using RO Brine for dust suppression without dilution.

Category 64 – Class II putrescible landfill

Two landfills (Class II) will be constructed at the premises on the waste rock dumps (WRD). One will be located on the Redcliffe WRD and the other on the Hub WRD. The applicant expects to dispose of 750 tonnes of waste per annum to the landfills (combined).

Category 54 – Sewage facility

A wastewater treatment plant (WWTP) capable of treating up to 25m³/day of sewage is proposed to treat waste from the onsite accommodation (toilets, ablutions, kitchen). Treated water will be disposed of to land through irrigation to an area of 0.7 hectares.

2.3 Other relevant approvals

Native vegetation clearing

This works approval does not assess or authorise the clearing of native vegetation.

The department understands that a native vegetation clearing permit will be obtained prior to works that require the clearing of native vegetation. The applicant has the responsibility to ensure that all necessary approvals are obtained for the clearing of native vegetation.

Aboriginal Heritage Act 1972

The applicant carried out an Aboriginal Heritage desktop study for the premises that identified one previously recorded Aboriginal Heritage place on the Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System (AHIS) within the Redcliffe Project area. This is Mt Redcliffe (DPLH #1491). The Darlot native title claim covers all the Redcliffe project area.

Health Act 1911 and Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974

The applicant is responsible for lodging an application with the local government agency to construct and install an apparatus for on-site wastewater disposal (sewage treatment) in accordance with the *Health (Treatment of Sewage and Disposal Of Effluent and Liquid Waste) Regulations 1974*.

Australian Drinking Water Guidelines

The applicant is proposing to treat dewater effluent for potable use at the accommodation camp and offices. The applicant is obliged to comply with the Australian Drinking Water Guidelines and provide all drinking water quality monitoring results to the Department of Health WA.

3. Water quality

3.1 Dewater effluent and discharge locations

Water quality results (Table 1 below) have been provided by the applicant for water contained within the mine voids and the water contained within the pits (discharge locations for dewater effluent). The department has compared the water quality results against the Australian and New Zealand Guidelines for Fresh and Marine Water Quality trigger values for livestock drinking water (ANZECC & ARMCANZ, 2000, Livestock) and Australian and New Zealand Guidelines for Fresh and Marine Water Quality short term trigger values for irrigation water (ANZECC & ARMCANZ, 2000, STV).

The following points are noted:

- Water is brackish to saline across all sampling sites (2900-12000 total dissolved solids (TDS)).

- TDS exceed the livestock drinking water guidelines at the receiving pits Redcliff and Mertondale. However, the dewatering effluent from the Hub and GTS mining operations range between 3800-4700 TDS which is within the livestock drinking water guidelines.
- pH across all sampling sites was alkaline, ranging between 7.4 and 10.2.
- Metals/metalloids are below guideline values for both livestock drinking water and short-term irrigation guidelines.

Table 1: Water quality results (dewater source and discharge locations)

| Analyte | Unit | Redcliff | Mesa | Hub | GTS | Mertondale 5 | Livestock drinking water | Short term irrigation |
|-----------|------|----------|--------|--------|--------|--------------|--------------------------|-----------------------|
| pH | - | 10.2 | 8.9 | 7.4 | 8.2 | 8.7 | - | - |
| TDS | mg/L | 12,000 | 2,900 | 4,700 | 3,800 | 7,700 | 5000 | - |
| TSS | mg/L | 17 | 13 | 6 | 11 | 13 | - | - |
| Nitrate | mg/L | 0.24 | 1.6 | 16 | 0.12 | 4.3 | 400 | - |
| Arsenic | mg/L | <0.01 | <0.001 | <0.001 | 0.001 | <0.01 | - | 2 |
| Copper | mg/L | <0.001 | 0.001 | <0.001 | 0.001 | 0.002 | 0.5 | 5 |
| Manganese | mg/L | <0.005 | <0.005 | 0.23 | <0.005 | <0.005 | - | 10 |
| Nickel | mg/L | <0.001 | <0.001 | 0.001 | <0.001 | 0.002 | 1 | 2 |
| Selenium | mg/L | 0.002 | 0.001 | 0.006 | <0.001 | 0.012 | 0.02 | 0.05 |
| Iron | mg/L | 0.0007 | 0.12 | <0.01 | 0.45 | <0.01 | - | 10 |
| Lead | mg/L | <0.001 | <0.001 | <0.001 | 0.001 | <0.001 | 0.1 | 5 |
| Aluminum | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 5 | 20 |
| Uranium | mg/L | 0.0007 | 0.0008 | 0.0041 | 0.0012 | 0.0022 | 0.2 | 0.1 |

3.2 Brine

Water quality results (Table 2 below) have been provided by the applicant for brine that will be used for dust suppression activities and disposed of into pits. The department has compared the water quality results against the Australian and New Zealand Guidelines for Fresh and Marine Water Quality trigger values for livestock drinking water (ANZECC & ARMCANZ, 2000, Livestock) and Australian and New Zealand Guidelines for Fresh and Marine Water Quality short term trigger values for irrigation water (ANZECC & ARMCANZ, 2000, STV).

The following points are noted:

- RO Brine is saline (TDS of 10,453) exceeding livestock drinking water guideline value.
- Sulfate concentrations exceed the guideline value for livestock drinking water
- Boron concentrations in the brine exceed the guideline value for both livestock drinking water and short-term irrigation guidelines
- All other metals are below guideline values.
- Fluoride concentrations in the brine exceed the guideline value for short term irrigation guidelines

The applicant has stated within their application that they may dilute the RO brine with dewater from the Hub within a turkey's nest prior for use for dust suppression. It is unclear if this will defiantly occur and therefore the department has assessed the impact of using RO Brine for dust suppression without dilution.

Table 2: Brine quality (liquid effluent waste from reverse osmosis water treatment plant)

| Analyte | Unit | RO Brine | Livestock drinking water | Short term irrigation |
|-----------|------|----------|--------------------------|-----------------------|
| TDS | mg/L | 10,453 | 5000 | |
| Nitrate | mg/L | 52 | 400 | |
| Fluoride | mg/L | 3 | - | 2 |
| Sulfate | mg/L | 2,058 | 1000 | |
| Arsenic | mg/L | 0.03 | - | 2 |
| Boron | mg/L | 16 | 5 | 0.5 |
| Copper | mg/L | 0.003 | 0.5 | 5 |
| Cobalt | mg/L | 0.01 | 1 | 0.1 |
| Manganese | mg/L | 0.75 | - | 10 |
| Nickel | mg/L | 0.003 | 1 | 2 |
| Selenium | mg/L | 0.02 | 0.02 | 0.05 |
| Iron | mg/L | 0.03 | - | 10 |
| Lead | mg/L | 0.003 | 0.1 | 5 |
| Aluminum | mg/L | 0.03 | 5 | 20 |
| Uranium | mg/L | 0.01 | 0.2 | 0.1 |

3.3 WWTP treated effluent

A WWTP will be installed at the accommodation camp to process wastewater streams from ablutions and other facilities. The proposed sewage facility will have a design capacity of 45kL per day however the applicant has confirmed that the expected throughput will be 25 kL/ day to cater for up to 100 person camp. The treatment process is a standard wastewater treatment process and comprises sequential batch reacting configuration which involves coagulation and sedimentation, anoxic and aerobic degradation / digestion.

Table 3 shows the expected effluent quality from the WWTP. The maximum irrigation quantity expected is 45 kL per day. In accordance with *Water Quality Protection Note 22: Irrigation of waste waters* (WQPN 22) the soils at the premises eutrophication risk is classified as Category D. WQPN 22 provides the following guidelines for maximum annual loads for category D situations:

- Maximum inorganic nitrogen load; 480 kg/ha/yr.
- Maximum reactive phosphorus load; 120 kg/ha/yr.

In order to stay within this maximum nutrient loads for a maximum of 25 kL / day the spray field area is required to be a minimum of 0.5703 hectares (or 5,703 m²) in size. The applicant has

confirmed that the spray field will be 7,143 m² which will allow a buffer.

Table 3: Expected effluent quality

| Element | Expected Effluent Quality |
|--------------------------|---------------------------|
| Biological Oxygen Demand | 20 mg/L |
| Total suspended solids | 30 mg/L |
| Total nitrogen | 30 mg/L |
| Total Phosphorus | 7.5 mg/L |
| <i>E. coli</i> | <1,000 CFU/100 mL |

4. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk Assessments* (DWER 2020).

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

4.1 Source-pathways and receptors

4.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction which have been considered in this decision report are detailed in Table 4 below. Table 4 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 4: Proposed applicant controls

| Emission | Sources | Potential pathways | Proposed controls |
|--|---|---|---|
| Construction | | | |
| Dust | Construction or placement of facilities and equipment including vehicle movements | Air/ windborne pathway | Watering of unsealed roads and open areas. |
| Operation (including time limited operations) | | | |
| Category 6: Dewatering | | | |
| Dewater effluent | Disposal into mine pits | Direct discharge – seepage through pit base and walls | Monitoring of surrounding vegetation Maintenance and monitoring of a 5 m freeboard to prevent inundation of vegetation rootzones Monitoring of an existing groundwater monitoring bore next to the Redcliffe pit to detect any impacts to |

| Emission | Sources | Potential pathways | Proposed controls |
|---|--|--|---|
| | | | <p>groundwater</p> <p>Mertondale 5 pit will receive dewater that will take a 15% of its total capacity. It has a clay base and is expected to have a low permeability.</p> |
| | | Overtopping of pit | <p>Maintenance and monitoring of a 5 m freeboard for each pit</p> <p>Use of dewater effluent for dust suppression activities (reduce amount for disposal into pits).</p> |
| | Use of dewater effluent for dust suppression | <p>Direct discharge</p> <p>Overspray or runoff from dust suppression operations</p> | <p>Construction:</p> <p>Register volumes of dewater effluent used for dust suppression during construction</p> <p>Operation:</p> <p>None proposed</p> |
| | Storage in containment infrastructure (turkey's nest or the like) | <p>Overtopping of containment</p> <p>Leak, rupture</p> <p>Seepage of salts, metals/metalloids into soil</p> | <p>None proposed</p> |
| | Dewater effluent pipelines | <p>Direct discharge (from pipeline failure)</p> | <p>Pipeline infrastructure located in banded areas</p> <p>Leak detection from beginning and end meters of dewatering effluent pipelines.</p> <p>Shutdown mechanism when leaks detected</p> <p>Regular inspections of the dewatering pipeline.</p> |
| A mix of dewater effluent and vehicle wash down water containing hydrocarbons | Storage and mixing of dewater effluent with waste stream from vehicle wash down areas before disposal into mine pits | <p>Direct discharge</p> <p>Overtopping of containment</p> <p>Leak, rupture</p> <p>Seepage of salts, metals/metalloids and hydrocarbons into soil</p> | <p>Treatment in an oily water separator (a type that uses gravity)</p> <p>Blending of the mixed dewater effluent and vehicle wash down water with unmixed dewater effluent to achieve a concentration of hydrocarbons less than 15 mg/L.</p> |
| | Dewater effluent /waste from vehicle wash down pipelines | <p>Direct discharge (from pipeline failure)</p> | <p>Pipeline infrastructure located in banded areas</p> <p>Leak detection from beginning and end meters of dewatering effluent</p> |

| Emission | Sources | Potential pathways | Proposed controls |
|---|-----------------------------------|---|--|
| | | | <p>pipelines.</p> <p>Shutdown mechanism when leaks detected</p> <p>Regular inspections of the dewatering pipeline.</p> |
| Associated activity: disposal of brine | | | |
| Brine (hypersaline liquid effluent) | Disposal into mine pits | Direct discharge – seepage through pit base and walls | <p>Monitoring of surrounding vegetation</p> <p>Maintenance and monitoring of a 5 m freeboard to prevent inundation of vegetation rootzones</p> <p>Monitoring of an existing groundwater monitoring bore next to the Redcliffe pit to detect any impacts to groundwater</p> <p>Mertondale 5 pit has a clay base and is expected to have a low permeability.</p> |
| | | Overtopping of pit | <p>Maintenance and monitoring of a 5 m freeboard</p> <p>Monitoring of pit levels</p> <p>Use of brine for dust suppression activities (reduce amount of brine for disposal into pits)</p> |
| | Use of brine for dust suppression | <p>Direct discharge</p> <p>Overspray or runoff from dust suppression operations</p> | Blending of brine and dewater effluent from the Hub |
| | Brine pipelines | Direct discharge (from pipeline failure) | Daily inspections of brine pipelines |
| Category 64: Putrescible landfill | | | |
| Windblown waste | Landfilling activities | Direct discharge/ Overland flow | <p>Hub Landfill and Redcliffe landfill constructed to accept Type 1 and Type II waste. The landfills will accept 2,500m³ or 750 tonnes per year and will have trenches of 55m in length and 2.6m in depth and 26m in width and fence to prevent windblown waste leaving the area and fauna entering.</p> <p>Monitor volumes in cubic metres each load arriving at the landfill.</p> |
| Leachate | | Seepage through soil to surface or | Bunding of landfill to prevent surface water ingress. |

| Emission | Sources | Potential pathways | Proposed controls |
|---|---|--|---|
| | | ground water | |
| Category 85: Sewage facility | | | |
| Sewage (treated, partially treated, untreated) | Spillage from plant and pipelines | Overland flow | <p>Sewage facility used within operational parameters of facility and influent will not exceed the volume that can be processed.</p> <p>The plant equipment and infrastructure will be maintained and services according to the manufacture's specification.</p> <p>Siting of camp on high ground outside drainage lines to prevent significant ingress of surface water flows into the spray field.</p> |
| Treated effluent | Discharge to land via a sprinkler irrigation system | <p>Infiltration to soil and groundwater</p> <p>Air / windborne pathway: Spray into environment</p> | <p>Cease operations of spray field during extreme weather events.</p> <p>Regular effluent water quality monitoring to check water quality against potential impacts.</p> <p>Fauna proof fencing of spray field.</p> <p>Management of spray field within capacity and inspections to prevent water pooling.</p> <p>Spray field irrigation area has been sized appropriately for nutrient loading rates</p> |
| | Discharge to land outside of spray field – runoff | Overland flow | None proposed. |
| Sludge residue from wastewater treatment | Spillage from plant and pipelines | Direct discharge | None proposed. |

4.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant's employees, visitors, and contractors from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 5 below provides a summary of potential environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020))

Table 5: Sensitive environmental receptors and distance from prescribed activity

| Environmental receptors | Distance from prescribed activity |
|-------------------------|-----------------------------------|
|-------------------------|-----------------------------------|

| | |
|---------------------------|---|
| Groundwater | <p>The premises is located within the Goldfields Groundwater Area (proclaimed area under the <i>Rights in Water Irrigation Act 1914</i>). Groundwater flows are generally towards the palaeo-drainages. Groundwater quality is fresh to brackish at Hub and GTS, less than 5,000 mg/L total dissolved solids (TDS) (Dacian Gold Limited 2021).</p> <p>Mesa and Redcliffe pits: Regional groundwater flow is east towards a tributary paleochannel of the Carey Palaeovalley (GRM 2021).</p> <p>Mertondale 5 pit: Regional groundwater flow is south/southwest towards the Station Creek palaeochannel and the Raeside regional palaeodrainage.</p> <p>Hub and GTS:</p> <p>Groundwater levels within Hub and GTS areas are about 15 - 20mbgl. Mining will extend below the groundwater table, therefore pit lakes are expected to be formed after mine closure (Dacian Gold Limited 2021).</p> <p>Pits for disposal of dewater effluent:</p> <p>Redcliffe: water level of 491 mAHD (27.57 mbgl).</p> <p>Mesa: water level at 490 mAHD with the base of the pit at 471 mAHD.</p> <p>Mertondale 5 pit: has a water level of 427 mAHD</p> <p>Groundwater users (pastoral bores)</p> <p>From Mesa and Redcliffe pits – 1 bore about 3 km south east</p> <p>From Mertondale 5 pit – 1 bore about 7 km south west</p> |
| Surface water | <p>Several ephemeral drainage lines run through the premises. They are all classed as minor. All but one is unnamed, with Dillon creek located about 4.5km south of the Mesa pit.</p> <p>The closest drainage line to the:</p> <ul style="list-style-type: none"> • Mesa pit is about 50m south; • Redcliffe pit is about 610m east; and • Mertondale 5 pit is about 680m south. |
| Threatened/Priority flora | <p>No threatened flora species were recorded within the survey area, no Priority or otherwise significant flora were recorded within the survey area.</p> <p>122 vascular flora taxa were identified in a field survey undertaken by Botanic Consulting in July 2021. These included <i>Fabaceae</i> (19 species), <i>Scrophulariaceae</i> (17 species) and <i>Maireana</i> (six species) and <i>Asteraceae</i> (14 species), <i>Eremophila</i> (17 species) and <i>Acacia</i> (17 species).</p> |
| Threatened/Priority fauna | <p>Malleefowl (<i>Leipoa ocellata</i>) (vulnerable)</p> <p>Chuditch (<i>Dasyurus geoffroii</i>) (vulnerable)</p> <p>Falco peregrinus</p> |
| Aboriginal heritage sites | <p>There is one Aboriginal archaeological site within the surveyed area. This is Mt Redcliffe Rockshelter 01.</p> <p>There is one previously recorded Aboriginal heritage site on the DPLH Aboriginal Heritage Inquiry System (AHIS) with in the Redcliffe Gold Project area. The Mt Redcliffe ethnographic site (DPLH #1491) and is partially located within M37/1286 and lies outside of the project area, approximately 1km to the north of the historic Redcliffe Open Pit.</p> |

4.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 4.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 4.1), these have been considered when determining the final risk rating. Where the delegated officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 6.

Works approval W6650/2022/1 that accompanies this decision report authorises construction and time limited operations only. The conditions in the issued works approval, as outlined in Table 6 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required to authorise emissions associated with the ongoing operation of the premises i.e. mine dewatering, landfill and wastewater treatment plant activities.

Table 6: Risk assessment of potential emissions and discharges from the premises during construction and operation

| Risk events | | | | | Risk rating ¹ C = consequence L = likelihood | Applicant controls sufficient? | Conditions ² of works approval | Justification for additional regulatory controls |
|--|--------------------|---|---|------------------------|---|--------------------------------|---|---|
| Sources / activities | Potential emission | Potential pathways and impact | Receptors | Applicant controls | | | | |
| Construction | | | | | | | | |
| <p>Movement of machinery / vehicles on roadways and construction and installation of infrastructure.</p> <p>Construction of dewatering infrastructure</p> <p>Excavation works associated with landfill construction.</p> | Dust | Air / windborne pathway causing impacts to vegetation | Native vegetation adjacent to infrastructure | Refer to Section 4.1.1 | <p>C = Slight</p> <p>L = Unlikely</p> <p>Low Risk</p> | Y | N/A | N/A |
| Operations (including time limited operations) | | | | | | | | |
| Disposal of dewater effluent into pits | Dewater effluent | Seepage through pit base and walls impacting on groundwater users | <p>Pastoral bore 3km east of Mesa and Redcliffe pits</p> <p>Pastoral bore 7km from Mertondale 5 pit</p> | Refer to Section 4.1.1 | <p>C = Slight</p> <p>L = Unlikely</p> <p>Low Risk</p> | Y | N/A | <p>Groundwater in the area is used for mining operations and stock watering purposes (pastoral bores). The closest pastoral bore to the Mesa and Redcliffe pits is located 3km to the east. The closest pastoral bore to Mertondale 5 pit is 7 km away.</p> <p>The dewatering effluent from the Hub and GTS mining operations range between 3800-4700 TDS which is within the livestock drinking water guidelines. Metals/metalloids are also below guideline values for livestock drinking water.</p> <p>The risk rating for this risk event has been determined to be low risk due to the distance to the receptor (pastoral bores) and the quality of the dewatering effluent. No additional regulatory controls are required.</p> |

| Risk events | | | | | Risk rating ¹ C = consequence L = likelihood | Applicant controls sufficient? | Conditions ² of works approval | Justification for additional regulatory controls |
|----------------------|--------------------|--|---|--------------------|---|--------------------------------|--|--|
| Sources / activities | Potential emission | Potential pathways and impact | Receptors | Applicant controls | | | | |
| | | Seepage through pit base and walls causing groundwater mounding and impacting on native vegetation | Native vegetation | | C = Moderate L = Unlikely Medium Risk | Y | Condition 7: authorised discharge points with freeboard limit Condition 9: Freeboard monitoring | <p>The risk of groundwater mounding at Mertondale No. 5 pit is considered low risk due to the relatively small volume of water being discharged (15% of the total capacity of the pit). Groundwater mounding is therefore unlikely to impact receptors at Mertondale No. 5 pit.</p> <p>The risk of groundwater mounding at Redcliffe and Mesa pits has been determined to be medium due to the limited capacity of the pits relative to the volume of water needing to be discharged. The applicant has stated that the pit sits above the groundwater table and discharge to the pits would cause seepage and temporary groundwater mounding. Given the potential for groundwater mounding to occur the applicant's proposed controls to maintain a 5 metre freeboard on the pits has been added to the works approval. This will minimise the likelihood that the groundwater mound will impact vegetation at the surface.</p> |
| | | Overtopping of pit causing direct discharge to land / inundation impacting on drainage lines, and surrounding soils and vegetation | Native vegetation Ephemeral drainage lines | | C = Moderate L = Possible Medium Risk | N | Condition 7: Freeboard limit Condition 9: monitoring of volumes discharged into pits <u>Condition 12: TLO report to include discharge volumes and volumes used for dust suppression</u> | <p>The risk of overtopping of the Mesa and Redcliff pits has been determined to be medium. The total volume of water (including brine, Dewater and water from truck wash facility) exceeds the total volume of both pits and in order to reduce the risk of overtopping the applicant is proposing to use some of the water for dust suppression activities. To minimise the risk of overtopping the applicant's proposed controls (maintenance of a 5 m freeboard) has been conditioned on the works approval for time limited operations.</p> <p>An additional condition requiring a reporting discharge volumes and volumes used for dust suppression during time limited operations have been added to the works approval to ensure the pit</p> |

| Risk events | | | | | Risk rating ¹ C = consequence L = likelihood | Applicant controls sufficient? | Conditions ² of works approval | Justification for additional regulatory controls |
|--|--------------------|--|-------------------------------|------------------------|---|--------------------------------|---|--|
| Sources / activities | Potential emission | Potential pathways and impact | Receptors | Applicant controls | | | | |
| | | | | | | | | capacities are monitored. |
| Transfer of dewater effluent via pipelines | Dewater effluent | Pipeline burst or leak causing direct discharge to land/inundation causing contamination/loss of vegetation | Native vegetation | Refer to Section 4.1.1 | C= Minor L= Unlikely Medium Risk | Y | Condition 1: Pipeline construction requirements Condition 7: Daily inspection of pipelines | The applicant controls have been deemed sufficient to manage this risk and have been added to the works approvals as regulatory controls. |
| Use of dewater effluent for dust suppression | Dewater effluent | Overspray or runoff leading to sprayed surfaces being dispersive, causing increased erosion/sedimentation Reduced vegetation health or vegetation death. Soil sodicity | Native vegetation Soil | Refer to Section 4.1.1 | C= Minor L= Unlikely Medium Risk | N | <u>Condition 6: Dust suppression</u> | The applicant is required to use a large volume of dewatering effluent from the hub mining operations due to lack of capacity within pit voids. The applicant anticipates approximately 312 ML of water could be used for dust suppression activities over the two years of operation. TDS of the dewatering effluent from the Hub and GTS mining operations range from 3,800 TDS to 7,700 TDS which is brackish to saline. Metals/metalloids concentrations within the dewatering effluent are below guideline values for both livestock drinking water and short-term irrigation guidelines. The applicant has proposed no controls in managing the risk to native vegetation from brackish – saline water. As a result a additional regulatory control has been added to the works approval to ensure saline dewatering effluent is applied in a manner that avoids overspray onto vegetation. |

| Risk events | | | | | Risk rating ¹ C = consequence L = likelihood | Applicant controls sufficient? | Conditions ² of works approval | Justification for additional regulatory controls |
|--|--|--|--|------------------------|---|--------------------------------|---|---|
| Sources / activities | Potential emission | Potential pathways and impact | Receptors | Applicant controls | | | | |
| Storage of dewater effluent in containment infrastructure (turkey's nest or the like) | Dewater effluent and vehicle wash down water treated via an oily water separator | Overtopping of containment causing inundation of land, impacts to native vegetation and seepage to groundwater | Native vegetation | | C= Minor L= Possible Medium Risk | N | Condition 1: construction requirements Condition 7: TLO requirements | Applicant has not provided any details on the size of the turkey's nests/dams or whether a freeboard will be maintained. Therefore, additional regulatory controls have been added to the works approval requiring all turkey's nests to be sized adequately and for a freeboard to be maintained. |
| Storage and mixing of dewater effluent with waste stream from vehicle wash down areas before disposal into mine pits | | Seepage of salts, metals/metalloids/hydrocarbons into soil/groundwater | | | C = Minor L = Rare Low Risk | Y | Condition 1: construction requirements | Applicant proposes to HDPE line turkey's nests/ dams that store dewatering water, RO brine or treated vehicle washdown water (for use for dust suppression). Therefore, the risk of seepage impacting soil/groundwater is low. Applicant's proposed controls have been conditioned within the works approval. |
| Disposal of RO brine into pits | Brine | Seepage through pit base and walls impacting on groundwater users (pastoral bores) | Pastoral bore 3km east of Mesa and Redcliffe pits Pastoral bore 7km from Mertondale 5 pit | Refer to Section 4.1.1 | C = Moderate L = Rare Medium Risk | Y | Condition 9: monitoring | Groundwater in the area is used for mining and stock watering purposes (pastoral bores). The applicant is proposing to discharge approximately 31 ML of RO Brine to Mesa and Redcliffe pits. RO Brine water is not expected to be discharged to Mertondale 5 pit. RO Brine water will be saline (TDS of 10,453 mg/L). TDS, Sulfate and Boron concentrations exceeding livestock drinking water guideline values. All other metals are below guideline values. The risk rating for this risk event has been determined to be medium risk due to the quality of the RO Brine. However, the distance to the receptor (pastoral bores 3 km), small volume of discharge makes it unlikely for impacts to occur. |
| | | Seepage through pit base and walls causing groundwater mounding and impacting on | Native vegetation | | C = Moderate L = Unlikely | Y | Condition 7: authorised discharge points with freeboard | The risk of groundwater mounding at Mertondale No. 5 pit is considered low risk due to the relatively small volume of water being discharged (15% of the total |

| Risk events | | | | | Risk rating ¹ C = consequence L = likelihood | Applicant controls sufficient? | Conditions ² of works approval | Justification for additional regulatory controls |
|----------------------|--------------------|--|---|--------------------|---|--------------------------------|---|--|
| Sources / activities | Potential emission | Potential pathways and impact | Receptors | Applicant controls | | | | |
| | | native vegetation | | | Medium Risk | | limit Condition 9: Freeboard monitoring | capacity of the pit). Groundwater mounding is therefore unlikely to impact receptors at Mertondale No. 5 pit. The risk of groundwater mounding at Redcliffe and Mesa pits has been determined to be medium due to the limited capacity of the pits relative to the volume of water needing to be discharged. The applicant has stated that the pit sits above the groundwater table and discharge to the pits would cause seepage and temporary groundwater mounding. Given the potential for groundwater mounding to occur the applicant's proposed controls to maintain a 5 metre freeboard on the pits has been added to the works approval. This will minimise the likelihood that the groundwater mound will impact vegetation at the surface. |
| | | Overtopping of pit causing direct discharge to land / inundation impacting on drainage lines, and surrounding soils and vegetation | Native vegetation Ephemeral drainage lines | | C = Moderate L = Possible Medium Risk | N | Condition 7: Freeboard limit Condition 9: monitoring of volumes discharged into pits <u>Condition 12:</u> <u>TLO report to include discharge volumes and volumes used for dust suppression</u> | The risk of overtopping of the Mesa and Redcliff pits has been determined to be medium. The total volume of water (including brine, Dewater and water from truck wash facility) exceeds the total volume of both pits and in order to reduce the risk of overtopping the applicant is proposing to use some of the water for dust suppression activities. To minimise the risk of overtopping the applicant's proposed controls (maintenance of a 5 m freeboard) has been conditioned on the works approval for time limited operations. An additional condition requiring a reporting discharge volumes and volumes used for dust suppression during time limited operations have been added to the works approval to ensure the pit capacities are monitored. |

| Risk events | | | | | Risk rating ¹ C = consequence L = likelihood | Applicant controls sufficient? | Conditions ² of works approval | Justification for additional regulatory controls |
|------------------------------------|--|--|-------------------------------|------------------------|---|--------------------------------|--|--|
| Sources / activities | Potential emission | Potential pathways and impact | Receptors | Applicant controls | | | | |
| Use of brine for dust suppression | | Overspray or runoff leading to sprayed surfaces being dispersive, causing increased erosion/sedimentation Reduced vegetation health or vegetation death. Soil sodicity | Native vegetation Soil | | C= Moderate L= Unlikely Medium Risk | N | <u>Condition 6: Dust suppression</u> | The applicant anticipates that some RO Brine will be used for dust suppression activities. RO Brine will be saline (TDS of 10,453 mg/L). Boron and fluoride concentrations exceeding the short-term irrigation guideline values. All other metals/metalloids are below guideline values. The applicant has proposed no controls in managing the risk to native vegetation from saline RO Brine. As a result, an additional regulatory control has been added to the works approval to ensure brine is applied in a manner that avoids overspray onto vegetation. |
| Transfer of brine via pipelines | | Pipeline burst or leak causing direct discharge to land/inundation causing contamination/loss of vegetation | Native vegetation | | C= Minor L= Unlikely Medium Risk | N | <u>Condition 1: Pipeline construction requirements</u> <u>Condition 7: Pipeline inspections</u> | Daily inspections of brine pipelines was the only proposed applicant control. Low level onsite impacts may occur in the event of a RO brine pipeline leak and therefore the risk rating for this event is medium. The applicant's proposed control has been deemed not sufficient to manage this risk and therefore additional regulatory controls have been added to the works approval requiring all pipelines to be constructed within secondary containment and to have telemetry fitted. |
| Truck washdown facility wastewater | Treated truck washdown water (contaminated with hydrocarbons) used as dust suppression | Direct discharge (via spraying) | Native vegetation | Refer to Section 4.1.1 | C = Minor L = Possible Medium Risk | N | Condition 1: infrastructure requirements Condition 8: authorized discharge TPH limit <u>Condition 9: monitoring of treated wash</u> | The applicant's controls have been conditioned within the works approval (treated truck wash water to be treated through an oily water separator to reduce TPH level below 15mg/L prior to use for dust suppression). Additional regulatory requirement has been added to the works approval to require monitoring of the treated truck wash waste with a limit of 15mg/L to ensure the oily water separator is |

| Risk events | | | | | Risk rating ¹ C = consequence L = likelihood | Applicant controls sufficient? | Conditions ² of works approval | Justification for additional regulatory controls |
|--|--|--|-----------------------------|------------------------|---|--------------------------------|--|--|
| Sources / activities | Potential emission | Potential pathways and impact | Receptors | Applicant controls | | | | |
| | | | | | | | <u>down water with limit</u> | operating efficiently. |
| Treatment of sewage through WWTP | Sewage (treated, partially treated, untreated) | Direct discharge – spills and leaks from pipelines and containment infrastructure causing ecosystem disturbance and impacting of vegetation. | Soils, land or groundwater. | Refer to Section 4.1.1 | C = Minor L = Unlikely Medium Risk | N | <u>Conditions 1: construction requirements</u> <u>Condition 7: TLO requirements</u> | The Delegated Officer considers that the risk of wastewater discharged to the environment can be managed with the additional conditions to ensure that the WWTP is constructed to prevent stormwater entering the system, must be impermeable, have an alarm to detect leaks and failures, and can store a minimum of three days' worth of effluent. The Works Approval Holder is also required to maintain flow meter on the WWTP inlet and outlets, sludge contained within tanks and spills cleaned up immediately. |
| | Nutrient rich water with pathogens | | | | | | | |
| | Chemical spills | | | | | | | |
| | Sludge resulting from treatment of sewage | | | | | | | |
| Disposal of treated effluent via spray field | Excess nutrients from irrigated wastewater | Infiltration to soils and groundwater causing contamination. | Soils, land or groundwater. | Refer to Section 4.1.1 | C = Minor L = possible Medium Risk | N | Conditions 1: design specifications for effluent concentrations and spray field size Condition 9: monitoring of WWTP effluent <u>Condition 9: limit of volume discharge to spray field.</u> | The WWTP is designed to treat a maximum of 45 kl/day. The applicant has stated that an expected through put will be 25 kl/day. The spray field has been sized to manage nutrient loads in accordance with WQPN 22 for a discharge of ~25kl/day (~7143 m ²). It has not been sized appropriately for 45 kl/day which would require a minimum spray field of 10,265 m ² An additional regulatory control has been added to the licence to ensure no more than 25 kl/day is applied to the spray field. The Works Approval Holder is required to monitor emissions from the WWTP during time limited operations to ensure excess |

| Risk events | | | | | Risk rating ¹ C = consequence L = likelihood | Applicant controls sufficient? | Conditions ² of works approval | Justification for additional regulatory controls |
|---|---|---|--|------------------------|---|--------------------------------|--|---|
| Sources / activities | Potential emission | Potential pathways and impact | Receptors | Applicant controls | | | | |
| | | | | | | | | nutrients are not irrigated to the spray field area |
| | Runoff of treated effluent outside of spray field | | | | C = Minor L = possible Medium Risk | N | <u>Condition 7 – operational controls</u> | No controls were proposed to manage runoff of treated WWTP effluent from the spray field. An additional regulatory control to prevent ponding or pooling of effluent within the irrigation area has been added to the works approval. |
| Class II Landfill facility's within WRD | Contaminated leachate from wastes | Seepage through the base and embankments of the landfill infiltration to groundwater causing contamination. | Contamination of soils, land or groundwater. | Refer to Section 4.1.1 | C = Minor L = Unlikely Medium Risk | N | Conditions 1: construction requirements <u>Condition 7: TLO requirements</u> | The Delegated Officer considers that the risk of contaminated leachate wastes from the landfill can be managed with the Applicant controls and additional conditions including a separation of 3m between the base of the landfill and the groundwater. Operational requirements during time limited operations including specifying what wastes can be accepted, no stockpiling of wastes, waste to be covered and stockpiles of inert wastes for cover have been added to the works approval as additional regulatory controls |
| | Windblown wastes | | | Refer to Section 4.1.1 | C = Slight L = Unlikely Low Risk | Y | Condition 7: TLO requirements | Applicant controls have been conditioned within the works approval. Standard landfill conditions relating to covering of wastes and the collection of windblown wastes have been added to the works approval for time limited operations |

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

5. Consultation

Table 7 provides a summary of the consultation undertaken by the department.

Table 7: Consultation

| Consultation method | Comments received | Department response |
|---|--|--|
| Application advertised on the department's website on 7 March 2022 | None received | N/A |
| Local Government Authority advised of proposal on 14 April 2022 | No comments received from Shire of Leonora or Shire of Laverton. | N/A |
| Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal 14 April 2022 | None received | N/A |
| Minara Resources Pastoral Manager – Nambi Pastoral Lease Holder | None received | N/A |
| Andrew Munckton and Steven Jones – Kin Mining | None received | N/A |
| Tjupan people (Harris Family) | None received | N/A |
| Darlot Native Title Group | None received | N/A |
| Applicant was provided with draft documents on 1/07/2022 | <p>The Applicant responded on 22 July 2022 (DWERDT635117).</p> <ol style="list-style-type: none"> 1. Decision Document: Incorrect Works Approval number – written as W6550/2022/1, should be W6650/2022/1. 2. 2.2 Application Summary and overview of Premises – incorrect company name provided – the processing Plant located at Mt Morgans is owned, licenced and operated by Mt Morgans WA Mining Pty Ltd not Redcliffe Project Pty Ltd. 3. 3.1.2 (Table 3) Receptors – incorrect spelling of 'area' in the first line of Aboriginal Heritage | <ol style="list-style-type: none"> 1. The Works Approval numbering has been corrected. 2. The application summary has been updated. 3. The spelling has been corrected. 4. The applicant control has been corrected to say 3m separation between landfill base and groundwater. 5. The condition has been corrected to say 3m separation between landfill base and groundwater. |

| | | |
|--|---|--|
| | <p>sites section of Table 3.</p> <p>4. (Table 4) – Risk ratings, last row on table on this page states ‘Applicant controls and additional conditions including a separation of 30 m between the base of the landfill and the groundwater’. This should be 3 m in accordance with Section 9(c) of the <i>Environmental Protection (Rural Landfill) Regulations 2002</i>.</p> <p>5. Works Approval Draft, section 1 - Line 2 of Table is as above where condition states ‘A separation of 30 m must be maintained between the base of the landfill trenches and surrounding groundwater levels.’ This should be 3 m in accordance with Section 9(c) of the <i>Environmental Protection (Rural Landfill) Regulations 2002</i>.</p> | |
| <p>Applicant was provided with a second draft document on 29 September 2022.</p> | <p>The Applicant responded on 28 October 2022 (A2134078).</p> <ol style="list-style-type: none"> 1. From the Decision Report page 3, there are multiple instances of volumes and tonnage provided. I would have thought that these figures should align e.g., 1 tonne of water is 1m³. 2. The specifics of the pipeline being 125mm and polyethylene <ol style="list-style-type: none"> (a) Can this be changed so that it is not so specific? (b) If not, and if there are slight changes, is it still DWERs policy to accept slight alterations in the construction/compliance documentation phase of the Works Approval? | <ol style="list-style-type: none"> 1. Page 3 of the Decision Document has been updated to reflect the correct tonnage. 2. The specifics of the pipeline in the Works Approval has been removed as this will not alter the risk rating. |

6. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. MBS Environmental 2021, *Surplus Water Management Assessment*, prepared for Dacian Gold Limited, December 2021 (Dacian Gold Limited 2021)
5. Groundwater Resource Management, *Redcliffe Gold Project Hydrogeological Investigations Report*, December 2021 (GRM 2021)
6. Botanica Consulting 2021, *Detailed Flora and Vegetation Survey of the Redcliffe Gold Project*.
7. MBS Environmental completed a *Soil and Landform Assessment for Redcliffe* in December 2021 (MBS, 2021c)
8. Phoenix Environmental Services 2021b *Stygofauna Survey for the Redcliffe Gold Project* (Phoenix, 2021b)
9. Notification: *Application for a Works Approval (W6650/2022/1) – Request for further information - Response to further information 25 May 2022*
10. Department of Water, *Water Quality Protection Note 22: Irrigation with nutrient-rich wastewater*, July 2008
11. *National Water Quality Management Strategy, Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, October 2000 (ANZECC 2000)

Appendix 2: Application validation summary

| SECTION 1: APPLICATION SUMMARY | | | | |
|---|---|--------------------------------|--|-------------------------------|
| Application type | | | | |
| Works approval | <input checked="" type="checkbox"/> | | | |
| Registration | <input type="checkbox"/> | Current works approval number: | | None <input type="checkbox"/> |
| Date application received | 23/12/2021 | | | |
| Applicant and Premises details | | | | |
| Applicant name/s (full legal name/s) | Redcliffe Project Pty Ltd | | | |
| Premises name | Redcliffe Gold Project | | | |
| Premises location | M37/1276 (expiry 29/07/2029) M37/1295 (expiry: 15/08/2033) M37/1348 (expiry: 17/01/2042) M37/233 (expiry: 05/11/2031) Holder: Kin Mining NL, PO box 565, Mount Hawthorn WA 6915. **Authority from Kin Mining for M37/233 Attachment 1C. | | | |
| Local Government Authority | Shire of Laverton and Shire of Leonora | | | |
| Application documents | | | | |
| HPCM file reference number: | DER2021/000746 | | | |
| Key application documents (additional to application form): | <ul style="list-style-type: none"> • Redcliffe Gold Project Works Approval Application and supporting documentation. • Redcliffe Gold Project Commissioning Plan • Botanica Consulting Detailed Flora and Vegetation Survey of the Redcliffe Gold Project • Phoenix Environmental Sciences Fauna habitat survey for the Redcliffe Gold Project • Phoenix Subterranean fauna assessment for the Redcliffe Gold Project • Groundwater Resource Management, Redcliffe Gold Project baseline hydro-meteorological & surface water management study • Redcliffe Gold Project Hydrogeological Investigations Report • Dacian Gold Redcliffe & MMGO Projects Aboriginal Heritage Desktop Report, August 2021 • Archaeological Survey Report, Dacian Gold Redcliffe Project, Leonora, Goldfields, WA. • Dewatering flow charts. • Redcliffe Gold Project Surplus Water Management Assessment • Redcliffe Gold Project, Soil and Landform Assessment | | | |
| Scope of application/assessment | | | | |

| | |
|---|---|
| Summary of proposed activities or changes to existing operations. | <p>Works approval:</p> <p>Stage 1: Construction of mine dewatering infrastructure and associated water transfer pipelines and commencement of dewatering activities.</p> <p>Stage 2: Construction of landfills and bioremediation pads and commencement of waste disposal to these facilities.</p> <p>Stage 3: Development of RO plant, washdown oily separator and discharge of wastewater and brine to nominated discharge points.</p> <p>Stage 4: development of Camp and WWTP and commencement of discharges to the WWTP irrigation area.</p> |
|---|---|

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

| Prescribed premises category and description | Proposed production or design capacity | Proposed changes to the production or design capacity (amendments only) |
|---|--|---|
| Category 6: Dewatering infrastructure and associated pipelines. | 473 ML or more per annum | |
| Category 54: Sewage facility | 25kL per day | |
| Category 64: Landfills | 750 tonnes per annum | |

Legislative context and other approvals

| | | |
|--|--|---|
| Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/> |
| Does the applicant hold any existing Part IV Ministerial Statements relevant to the application? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Ministerial statement No: EPA Report No: |
| Has the proposal been referred and/or assessed under the EPBC Act? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Reference No: |
| Has the applicant demonstrated occupancy (proof of occupier status)? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input checked="" type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry: |
| Has the applicant obtained all relevant planning approvals? | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> | Approval: Expiry date: If N/A explain why? |
| Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | CPS No: Clearing permit has not yet been applied for. |

| | | |
|--|---|---|
| Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Application reference No: N/A Licence/permit No: N/A |
| Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Application reference No: Licence/permit No: Licence will be applied for in 2022. |
| Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Name: Goldfields Groundwater area Type: Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Regional office: |
| Is the Premises situated in a Public Drinking Water Source Area (PDWSA)? | Yes <input type="checkbox"/> No <input type="checkbox"/> | Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>) | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | <i>Mining Act 1978</i> <i>Biodiversity Conservation Act 2016</i> <i>Aboriginal Heritage Act 1972</i> <i>Rights in Water and Irrigation Act 1914</i> <i>National Greenhouse and Energy Reporting Act 2007</i> |
| Is the Premises within an Environmental Protection Policy (EPP) Area? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Is the Premises subject to any EPP requirements? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Classification: N/A Date of classification: N/A |