



## Application for Licence Amendment

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

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<b>Licence Number</b>	L9430/2024/1
<b>Licence Holder</b>	Onslow Iron Pty Ltd
<b>ACN</b>	649 012 395
<b>File Number</b>	APP-0026173
<b>Premises</b>	West Pilbara Iron Ore Project M08/480, M08/484, G08/88, L08/67, L08/68, L08/69 and L08/181 CANE WA 6710
<b>Date of Report</b>	17/04/2025
<b>Decision</b>	Revised licence granted

## Table of Contents

<b>1.</b>	<b>Decision summary .....</b>	<b>1</b>
<b>2.</b>	<b>Scope of assessment .....</b>	<b>1</b>
2.1	Regulatory framework .....	1
2.2	Amendment summary .....	1
2.3	Addition of new category 64 - Class II or III putrescible landfill site .....	2
2.3.1	Kens Bore Waste Rock Landform (KB WRL Landfill) .....	2
2.3.2	Cardo Bore East WRL 2 and WRL 3 .....	3
2.4	Category 5 activities – Mobile Crushing and Screening Plant .....	4
2.5	Construction and Operation of a Bioremediation Facility.....	4
2.6	Proposed Pit Stormwater Discharge Locations and Management .....	4
2.7	Other Approvals.....	9
2.7.1	<i>Environment Protection and Biodiversity Conservation Act 1999</i> .....	9
2.7.2	Pt IV of the EP Act .....	9
2.7.3	Mining Act 1978 and Mining Regulations 1981 .....	9
2.7.4	Aboriginal Heritage Act 1972.....	9
2.7.5	Land Administration Act 1997.....	10
<b>3.</b>	<b>Risk assessment.....</b>	<b>10</b>
3.1	Source-pathways and receptors .....	10
3.1.1	Emissions and controls .....	10
3.1.2	Receptors.....	14
3.2	Risk ratings.....	17
<b>4.</b>	<b>Consultation .....</b>	<b>22</b>
<b>5.</b>	<b>Conclusion .....</b>	<b>22</b>
5.1	Summary of amendments.....	22
	<b>References .....</b>	<b>24</b>
	<b>Appendix 1: Summary of Licence Holder’s comments on risk assessment and draft conditions .....</b>	<b>25</b>
	Table 1: Proposed production/design capacity changes.....	1
	Table 2: KB WRL lift summary table (MRL, 2024) .....	3
	Table 3: CBE WRL lift summary table (MRL, 2024) .....	3
	Table 4: Licence Holder controls.....	10
	Table 5: Sensitive human and environmental receptors and distance from prescribed activity .....	14
	Table 6. Risk assessment of potential emissions and discharges from the Premises during construction, commissioning and operation.....	18

Table 7: Consultation .....22

Table 8: Summary of licence amendments .....22

Figure 1: Indicative Cross Section of Bioremediation Cell.....4

Figure 2: Locations of KB WRL, CBE WRL and Bioremediation Facility.....6

Figure 3: Indicative Discharge Locations - Kens Bore.....7

Figure 4: Indicative Discharge Locations of Upper Cane and Cardo Bore East.....8

Figure 5: Distance to sensitive receptors.....16

## 1. Decision summary

Licence L9430/2024/1 is held by Onslow Iron Pty Ltd (Licence Holder) for the West Pilbara Iron Ore Project (the Premises), located at mining tenements M08/480, M08/484, G08/88, L08/67, L08/68, L08/69 and L08/181 CANE WA 6710.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised L9430/2024/1 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department 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 Amendment summary

On 31 October 2024, the Licence Holder submitted an application to the department to amend Licence L9430/2024/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The premises is located approximately 45 km south-west of Pannawonica. The following amendments are being sought are the:

1. addition of new category 64 infrastructure; the operation of Kens Bore Waste Rock Landform (KB WRL) landfill and construction and operation of Cardo Bore East at WRL #2 (CBE WRL 2) and WRL #3 (CBE WRL 3) landfills
2. amendment of the location of the mobile crushing and screening plant (Category 5), to remove restriction of location for flexibility of use
3. construction and operation of a Bioremediation Facility, and
4. addition of contingency for stormwater overflow to the environment following rainfall events.

This amendment is limited only to changes to Category 5 and 64 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Category 54 and 77 have been requested by the Licence Holder.

Table 1 below outlines the proposed changes to the existing Licence.

**Table 1: Proposed production/design capacity changes**

Category	Current production/ design capacity	Proposed production/ design capacity	Description of proposed amendment
5	7,000,000 tonnes per annual period	No change	To allow flexibility of location for mobile crushing and screening plant operations.
54	250 m <sup>3</sup> /day of treated effluent, plus 164 m <sup>3</sup> /day of RO brine	No change	No change
64 – New category	0 tonnes per annual period	9,000 tonnes per annual period	The Applicant is seeking an approval to operate Category 64 landfill facilities for disposal of 9,000 tonnes per annual period of waste

			<p>on the premises, at the following locations:</p> <ul style="list-style-type: none"> <li>• Kens Bore Waste Rock Landform (KB WRL Landfill)</li> </ul> <p>Cardo Bore East at WRL #2 (CBE WRL 2 Landfill) and WRL #3 (CBE WRL 3 Landfill) (together, CBE Landfills)</p>
77	630,720 tonnes per annual period	No change	No change

## 2.3 Addition of new category 64 - Class II or III putrescible landfill site

The licence holder seeks approval to operate Category 64 landfill facilities for disposal of not exceeding 9,000 tonnes per annum (tpa) of waste on the premises, at the following locations:

1. Kens Bore Waste Rock Landform (KB WRL Landfill)
2. Cardo Bore East at WRL #2 (CBE WRL 2 Landfill) and WRL #3 (CBE WRL 3 Landfill) (together, CBE Landfills)

The KB WRL landfill was constructed under W6769/2023/1 and this amendment approves the operation of the landfill.

The landfill facilities within CBE WRL 2 and CBE WRL 3 (CBE WRL Landfills) CBE have not yet been constructed and this amendment approves the construction and operation of the facilities.

### 2.3.1 Kens Bore Waste Rock Landform (KB WRL Landfill)

The KB WRL is one landform that will be constructed with a maximum of four lifts, with each lift being 10 -12 metres high (Table 2). Various stages of the first lift will be less than 10 m to blend in with the natural terrain. The landfill cells will be constructed as required within the WRL lifts. Each lift of the WRL will be constructed in stages depending on the mining and waste schedule.

As areas of the WRL become available, a landfill cell will be constructed for campaign dumping of landfill waste. Windrows will be constructed around three sides of an active cell. Waste rock will be used to cover the landfill cell after campaign dumping of landfill waste. Waste types will be segregated for disposal.

The KB WRL landfill will be used for waste generated from construction and operational activities at the site. The landfill will accept the following waste types in accordance with the *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)* (DWER 2019): including inert waste type 1 (including pallets), inert waste type 2 (tyres only), treated soils from the bioremediation facility that meets waste acceptance criteria. The applicant stated that there are no plans to build putrescible trenches at the KB WRL Landfill. Nonetheless, the licence holder requests a contingency plan for the putrescible waste disposal (MRL, 2024).

Used tyres will be disposed at the base of a WRL lift into a windrowed area/cell. Type 1 inert waste will either be placed at the base level of a WRL lift into a windrowed area or cell, or it will be disposed of from the tip head onto the batter face of the WRL (if possible).

All landfill cells within the KB WRL will be set back at least 20 m from the planned rehabilitated edges of the WRL. Waste rock will be used for cover material after campaign dumping of waste to landfill areas.

**Table 2: KB WRL lift summary table (MRL, 2024)**

WRL Lift	Lift/ Landfill level (m AHD)
<b>Stage 3 (Stage 1, 2 and 3 combined)</b>	
1	230
2	240
3	250
<b>Final Stage</b>	
1	230
2	240
3	250

**2.3.2 Cardo Bore East WRL 2 and WRL 3**

The landfill will accept the following waste types in accordance with the *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)* (DWER 2019): including inert waste type 1 (including pallets), inert waste type 2 (tyres only), and treated soils from the bioremediation facility that meets waste acceptance.

CBE WRL 2 will be constructed within a total footprint of 35 hectares and CBE WRL 3 will be constructed within a total footprint of 53.5 hectares. The CBE WRLs are planned to have 3 lifts of up to 10 m, to a maximum height of 28 m above natural surface level (Table 3).

The applicant stated that there are no plans to build putrescible trenches at the KB WRL Landfill. Nonetheless, the licence holder requests a contingency plan for the putrescible waste disposal. All other waste disposal criteria are same with the KB WRL landfill.

It is expected that the WRL’s at CBE will be available for landfilling activities after mining continues to the CBE deposits and sufficient waste rock is available, which is expected in 2028 (MRL, 2024).

An existing works approval W5172/2012/1 (expires 31/12/2025) is held for a category 89 putrescible landfill facility with a design capacity of 3,675 tonnes per annum. This is currently under construction and will also accept putrescible waste streams generated onsite. This landfill facility (authorised under W5172/2012/1) is not within the scope of the assessment documented in this decision report. This landfill will be included in a licence amendment application as construction is completed.

**Table 3: CBE WRL lift summary table (MRL, 2024)**

WRL Lift	Lift/ Landfill level (m AHD)
<b>CBE WRL #2 Landfill</b>	
1	233
2	243
3	253
<b>CBE WRL #3 Landfill</b>	
1	229
2	239

## 2.4 Category 5 activities – Mobile Crushing and Screening Plant

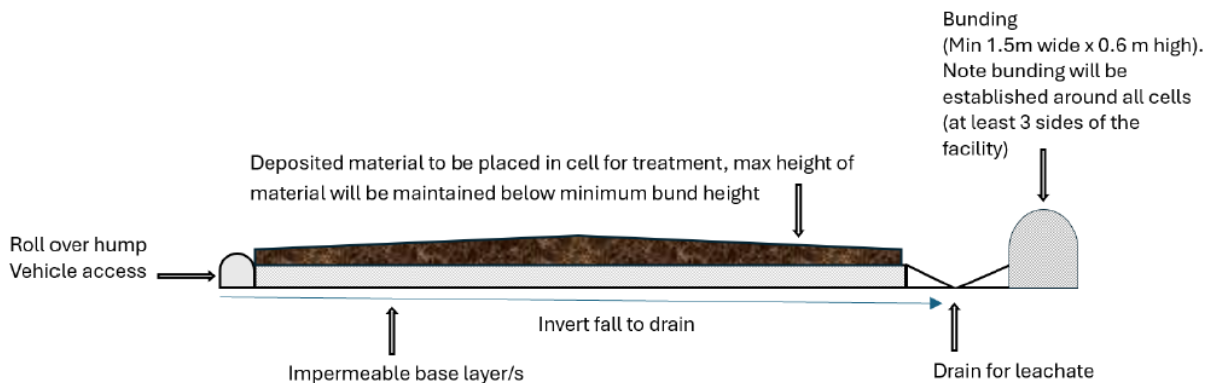
The licence holder requests to allow the flexibility in operating the mobile crushing and screening plant in other mining related areas within the prescribed premise as required. This amendment seeks to amend Figure 1 shown in Schedule 1 of the current licence L9430/2024/1, removing the location shown for the Category 5 mobile crushing and screening plant.

The delegated officer evaluates the request and authorises the mobilisation of the screening and crushing plant wherever mining is required within the premises boundary according to the low danger of dust impacts on the receptors.

## 2.5 Construction and Operation of a Bioremediation Facility

The licence holder proposes to construct and operate a bioremediation facility to treat sediment and soils contaminated with hydrocarbons primarily from the site wash bay facility and from incidental fuel spills and hydrocarbon leaks. The facility will be located within the prescribed premises boundary in proximity to the KB Kens Bore low grade ore stockpile to better facilitate operational needs (Figure 1).

The bioremediation facility will be used to treat sediment and soils contaminated with hydrocarbons primarily from the site wash bay facility and from incidental fuel spills and hydrocarbon leaks.



**Figure 1: Indicative Cross Section of Bioremediation Cell**

## 2.6 Proposed Pit Stormwater Discharge Locations and Management

Pit stormwater will be stored for future use as dust suppression. When direct discharge is required, in-pit stormwater will be discharged to nearby creeks, with the proposed indicative locations shown in Figure 2 and Figure 3.

To reduce erosion risk, discharge locations will be in places with minimal erosion risk and natural stormwater flows, as well as outside designated avoidance areas, such as major cultural heritage areas. Total suspended solids (TSS) will be measured in in-pit stormwater samples before it is released directly into the environment. Surface water quality, quantity and flows will be monitored at locations upstream and downstream of project disturbance areas. A diffuser will be affixed to the end of the discharge pipeline to further lessen the impact of scouring, and discharge flow rates to the environment from the in-pit pump out of stormwater will be controlled to avoid scouring of the receiving creek beds.

As stated in MRL, 2024, flow through sediment basins are to be constructed within the Kens

Bore infrastructure area during December 2024 and sediment basins are also proposed to be constructed around the Upper Cane non process infrastructure (NPI) area, Upper Cane ROM and Cardo Bore East ROM. The Cardo Bore East sediment basin, and the adjacent bund provide settlement of sediments before the water is released into the downstream environment.



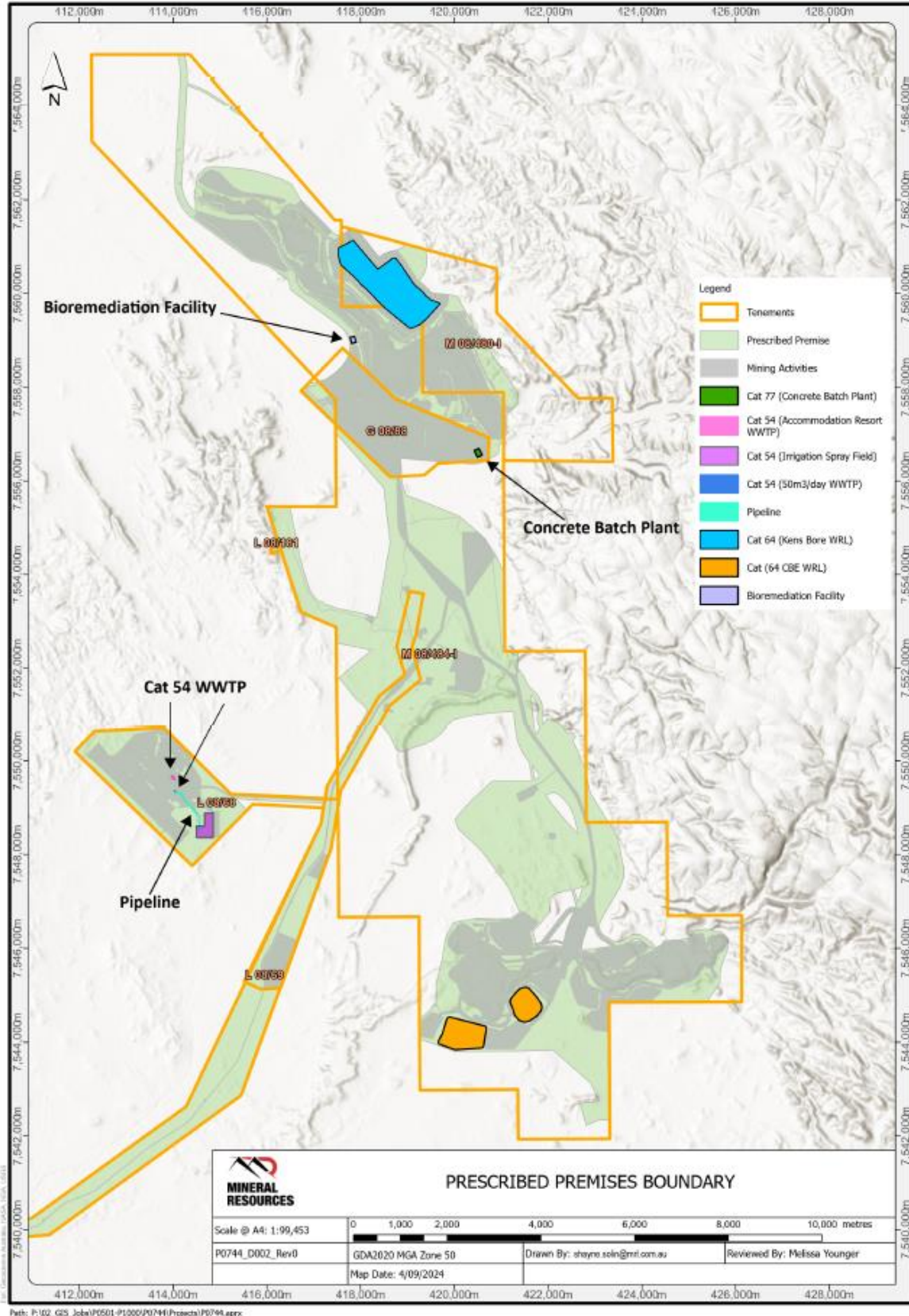


Figure 2: Locations of KB WRL, CBE WRL and Bioremediation Facility

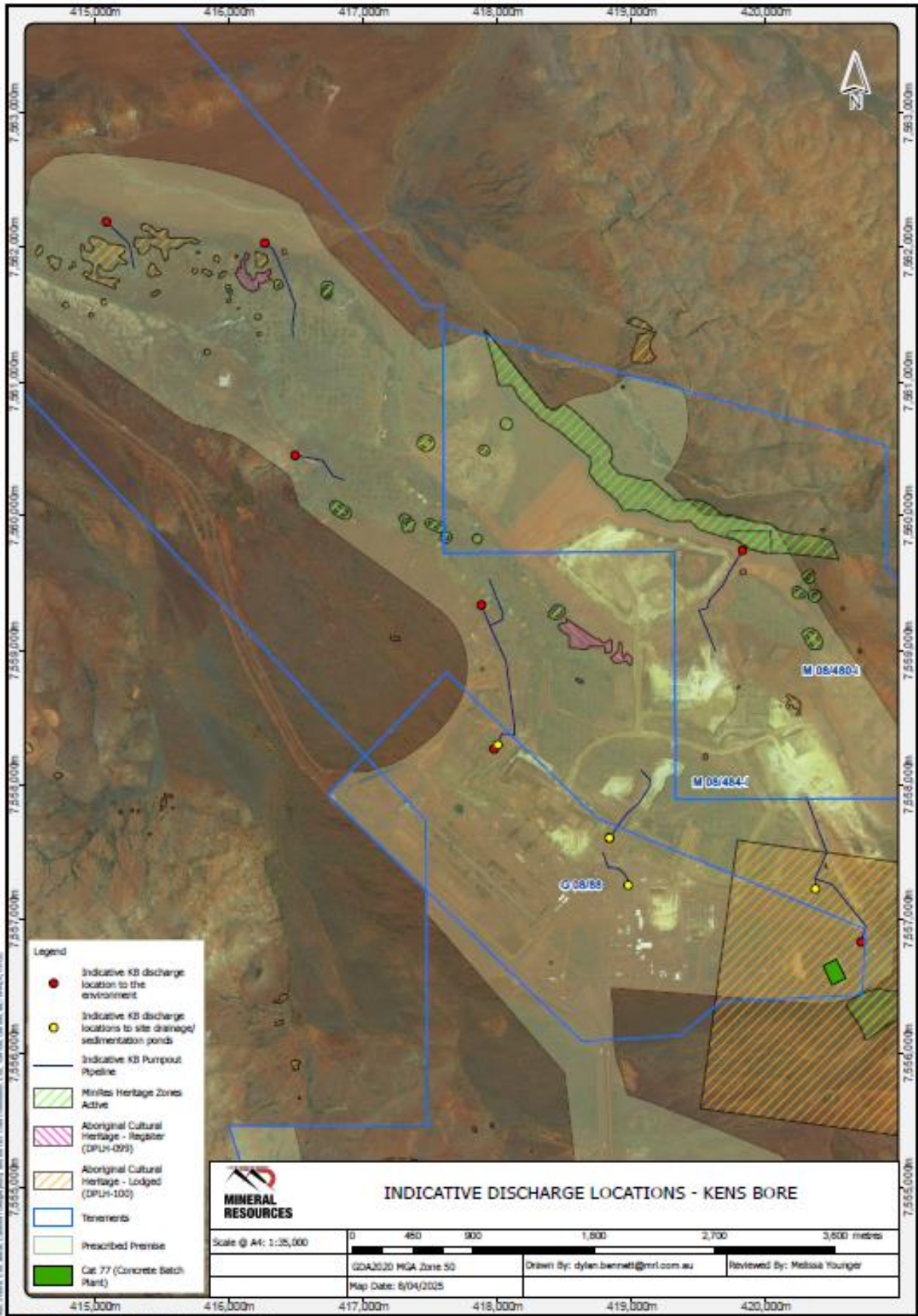


Figure 3: Indicative Discharge Locations - Kens Bore

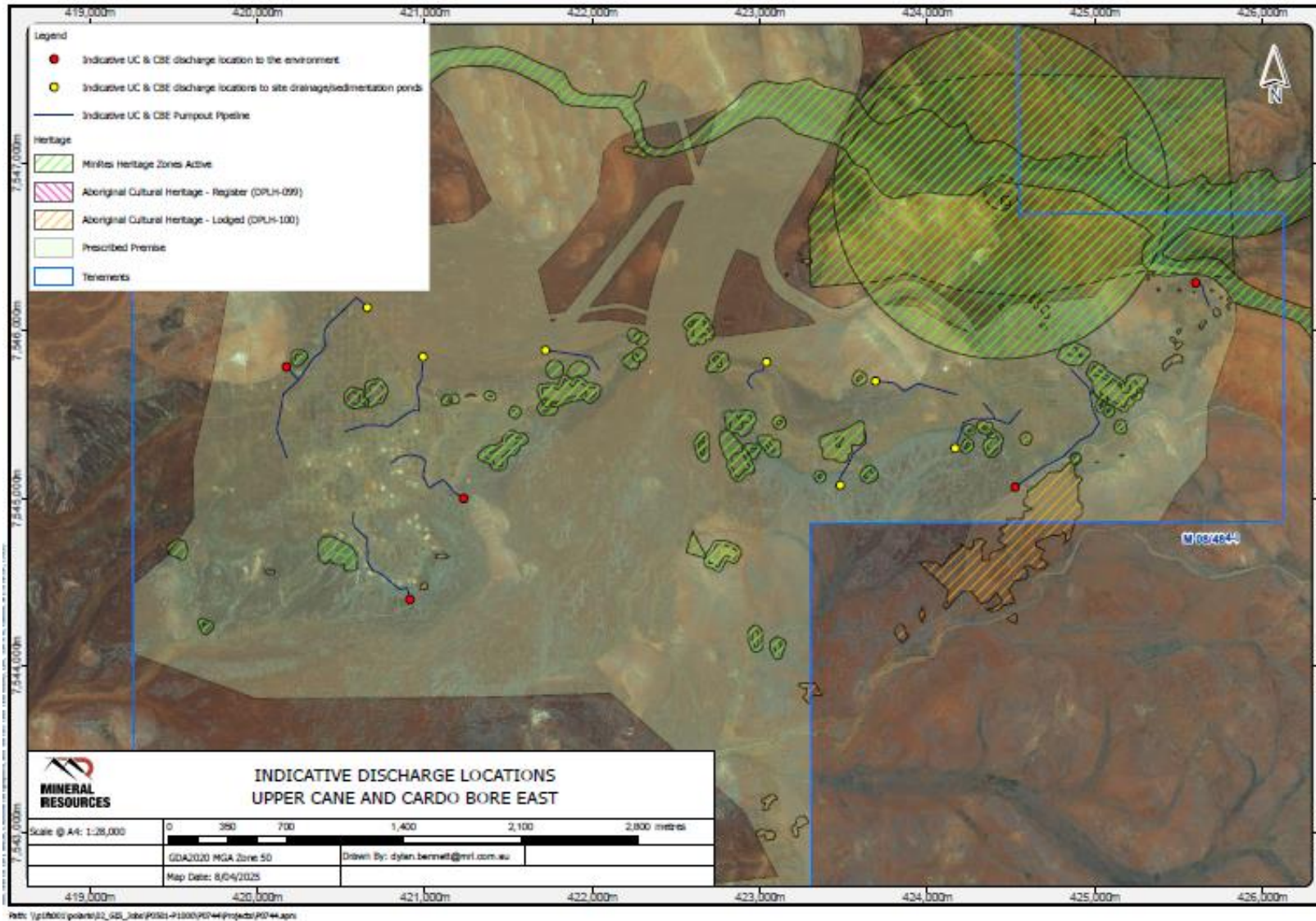


Figure 4: Indicative Discharge Locations of Upper Cane and Cardo Bore East

## 2.7 Other Approvals

### 2.7.1 Environment Protection and Biodiversity Conservation Act 1999

The clearing has been implemented as part of a controlled action approved under Commonwealth Environment Protection and Biodiversity Conservation Act 1999 – Referral No 2009/4706. The condition 4 relating to a Fauna Management Plan and condition 5 relating to a Ground Water Report and Monitoring Program.

#### **Condition 4 relating to a Fauna Management Plan, which must include:**

- a) Measures to minimise mortality of EPBC Act listed threatened fauna species during construction;
- b) Measures to protect EPBC Act listed threatened fauna habitat located adjacent to cleared areas;
- c) Measures to rehabilitate areas disturbed during construction;
- d) Collated baseline data of EPBC Act listed threatened fauna at and adjacent to the project area; and
- e) A fauna monitoring program.

#### **Condition 5 relating to a Ground Water Report and Monitoring Program which must address, but not be limited to:**

- a) Measures to ensure that the water levels in groundwater fed pools within and adjacent to the project area are maintained consistent with pre-mining levels for the life of the mine; and
- b) Details including the timing, methodology, infrastructure design, trigger levels and monitoring strategies of a supplementation program designed to maintain water levels of groundwater fed pools located adjacent to disturbance areas for the life of the mine.

### 2.7.2 Part IV of the EP Act

Clearing of native vegetation has been assessed under Section 40 of the EP Act as part of a proposal referred under Section 38 of Part IV of the EP Act. Clearing has been done in the implementation of the Proposal, in accordance with Ministerial Statement 1027 and MS 1203.

The requirements of MS 1027 include the monitoring of impacts to *Triodia pisoliticola* due to dust deposition, saline water application for dust control, fire and feral species and are not re-assessed in this amendment report and these will not be duplicated as conditions on the licence.

### 2.7.3 Mining Act 1978 and Mining Regulations 1981

Mining Proposal and Mine Closure Plan (Reg ID 113163) was approved (MRL,2024). Mining Proposal and Mining Closure Plan (REG ID 123801) has been approved by Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) on 19 November 2024. It authorises mining and associated activities within the approved disturbance envelope.

### 2.7.4 Aboriginal Heritage Act 1972

Ethnographic and archaeological surveys completed (MRL,2024). As a result of ongoing consultation, several s18 applications received Ministerial Consent, with the endorsement of the Native Title Groups (NTG). This allows for the disturbance of previously identified sites and places within and adjacent to the Project. Several areas within the Premises have been salvaged with s18 endorsement. Consultation with Native Title Groups is ongoing to identify any future requirements.

### 2.7.5 Land Administration Act 1997

The Project occurs on Red Hill Pastoral Lease (MRL,2024) where the land is used for cattle grazing and is administered under the *Land Administration Act 1997*. The Kens Bore Deposit area is not within or adjacent to any conservation reserves. Cane River Conservation Park is the nearest reserve and is 20 km west of the prescribed premises boundary, approximately 70 km from the KB WRL landfill and 73 km the CBE landfills detailed in this licence application.

## 3. 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.

### 3.1 Source-pathways and receptors

#### 3.1.1 Emissions and controls

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

**Table 4: Licence Holder controls**

Emission	Sources	Potential pathways	Proposed controls
<b>Construction - Category 64 - Class II or III putrescible landfill site and bioremediation facility</b>			
Dust	Construction of CBE Landfills <ul style="list-style-type: none"> <li>• Movement of vehicles and earthmoving machineries on unsealed roads</li> <li>• Ground excavation</li> <li>• General earthworks</li> </ul>	Air/windborne pathway	<ul style="list-style-type: none"> <li>• Dust suppression water will be applied as required to reduce dust emissions.</li> </ul> <p><b>Proposed Monitoring:</b></p> <ul style="list-style-type: none"> <li>• Visual monitoring for generation of dust.</li> <li>• If visible dust emissions are noted outside of the area where the prescribed activity is located then an assessment of the source will be made and additional water will be applied to key source areas, or alternative treatments applied.</li> </ul>
Noise			<ul style="list-style-type: none"> <li>• Will be in accordance with the <i>Environmental Protection (Noise) Regulations 1997 (WA)</i>.</li> <li>• Noise attenuation methods will be considered for plant and relevant equipment.</li> <li>• Maximum sound power levels are specified for equipment.</li> </ul> <p><b>Proposed Monitoring:</b></p>

Emission	Sources	Potential pathways	Proposed controls	
			<ul style="list-style-type: none"> <li>An incident reporting system will be maintained to assist in managing environmental incidents such as noise complaints.</li> </ul>	
Stormwater	Excavation, run-off from stockpiles and general earthworks	Overland run-off	<ul style="list-style-type: none"> <li>Stormwater will be redirected away from the treatment facility.</li> <li>Leachate and contaminated stormwater runoff will be directed to an impermeable leachate collection system with adequate capacity.</li> </ul>	
<b>Operation - Category 64 - Class II or III putrescible landfill site (Operation of CBE landfills and KB WRL landfill)</b>				
Dust	<p>Delivery of waste to the landfill from the movement of vehicles on unsealed roads.</p> <p>Dust when capping and covering landfill material with waste material and</p> <p>Maintenance of the landfill.</p>	Air/windborne pathway	<ul style="list-style-type: none"> <li>Dust suppression water will be applied as required to reduce dust emissions.</li> </ul> <p><b>Proposed Monitoring:</b></p> <ul style="list-style-type: none"> <li>Visual monitoring for generation of dust.                             <ul style="list-style-type: none"> <li>If visible dust emissions are noted outside of the area where the prescribed activity is located then an assessment of the source will be made and additional water will be applied to key source areas, or alternative treatments applied.</li> </ul> </li> <li>Monitor impacts due to dust deposition, on the <i>Triodia pisolitica</i> assemblages of the mesas of the West Pilbara PEC in proximity to mining operations in accordance with Condition 7-7 of MS 1203.</li> </ul>	
Noise	Vehicles and earthmoving machinery for landfill processing and maintenance			<ul style="list-style-type: none"> <li>Noise attenuation methods will be considered for plant and relevant equipment.</li> </ul> <p><b>Proposed Monitoring:</b></p> <ul style="list-style-type: none"> <li>An incident reporting system will be maintained to assist in managing environmental incidents such as noise complaints.</li> <li>Monitoring in accordance with State and Federal legislated Management Plans.</li> </ul>
<p>Emissions to Air – Smoke (gaseous, dust (PM2.5, PM10)).</p> <p>Carbon oxides, nitrogen oxides, VOCs.</p>	Landfill fires causing smoke			<p>Tyres will be disposed in the landfill facility in dedicated trenches as follows:</p> <ul style="list-style-type: none"> <li>In batches separated from each other by at least 100 mm of soil and each consisting of not more than 1,000 used car tyre equivalent.</li> <li>Tyres to be covered at regular intervals</li> <li>Once final waste levels in the tyre disposal area are achieved 500 mm of cover will be applied.</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> <li>• Putrescible trenches covered regularly with sufficient quantities of Inert waste Type 1 clean fill or other appropriate cover material.</li> <li>• Training to staff and contractors for permitted waste disposal and recycling.</li> <li>• Mineral Resources Landfill Management Procedure.</li> </ul> <p><b>Proposed Monitoring:</b></p> <ul style="list-style-type: none"> <li>• Regular inspection of landfill cells, recording landfill volumes and tyre disposal.</li> </ul>
General waste	Windblown wastes may affect the local amenity		<ul style="list-style-type: none"> <li>• Putrescible landfill facility will have appropriate barrier to prevent windblow waste.</li> <li>• The tipping area will be no longer than 30 m.</li> <li>• Waste will be disposed within defined trench/cell or within an area enclosed by earthen bund.</li> <li>• Have appropriate signage for the landfill, including signage within the facility, to designate specific areas (i.e. tipping area).</li> </ul> <p>In circumstances where putrescible waste is disposed at the Kens Bore WRL Landfill, in addition to the above controls, the following measures will be in place.</p> <ul style="list-style-type: none"> <li>• Permanent / semi-permanent fencing or suitable barrier with signage will be installed around putrescible trenches where possible or practical and as required for fauna management.</li> <li>• Trenches will be constructed at or near to the base of each lift and at least 20 m from the side of the planned rehabilitation edge but open on the tipping face.</li> <li>• Trenches will be covered at least fortnightly with sufficient quantities of clean fill or other dense, inert and incombustible material.</li> </ul> <p><b>Proposed Monitoring:</b></p> <ul style="list-style-type: none"> <li>• Regular inspection of landfill cells, recording landfill volumes and tyre disposal.</li> <li>• Regular inspections to include windblown waste</li> <li>• Report on feral animal captures and eradication programmes associated with landfill facilities as per State and Federal legislated Fauna Management Plans.</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> <li>Any wind-blown waste will be collected and returned to the tipping area at least monthly.</li> </ul>
Emissions to groundwater - Leachate	Contaminated leachate from waste		<ul style="list-style-type: none"> <li>Disposal within the WRLs - the separation distance between the base of the landfill and the highest groundwater level will be more than 6 m.</li> <li>Waste will be disposed within defined trench/cells.</li> <li>The tipping area will be no longer than 30 m.</li> </ul> <p><b>Proposed Monitoring:</b></p> <ul style="list-style-type: none"> <li>Regular inspection of landfill cells, recording landfill volumes and tyre disposal.</li> </ul>
Emissions to Air – Light	Lighting to ensure safe operation of machinery and safe access to the premises.	Air	<ul style="list-style-type: none"> <li>Night lighting will be limited to the minimum required for site safety and security.</li> <li>If required, the lights will face inwards towards the Project activities to reduce impact to fauna.</li> <li>In accordance with relevant management plans, including Northern Quoll Management Plan, Ghost Bat management Plan and Pilbara Olive Python Management Plan.</li> </ul>
<b>Operation – Bioremediation facility</b>			
Dust	Ripping and tilling activities for treatment of soils	Air/windborne pathway	<ul style="list-style-type: none"> <li>Dust suppression water will be applied as required to reduce dust emissions.</li> </ul> <p><b>Proposed Monitoring:</b></p> <ul style="list-style-type: none"> <li>Visual monitoring for generation of dust.</li> <li>If visible dust emissions are noted outside of the area where the prescribed activity is located then an assessment of the source will be made and additional water will be applied to key source areas, or alternative treatments applied.</li> </ul>
Odour and Volatile Organic Compounds (VOC's)	Aerobic/anaerobic treatment, ripping and tilling of soils for treatment		<ul style="list-style-type: none"> <li>Periodic mixing/turning of material to promote bioremediation.</li> <li>Adequate moisture content to promote bioremediation.</li> <li>Regular ripping/tilling and applying water in accordance with internal procedures to support micro-organisms required for the bioremediation process.</li> <li>Facility located &gt;100m from occupied buildings.</li> </ul>



Emission	Sources	Potential pathways	Proposed controls
Leachate or Unauthorised Discharge	Insufficient storage / overtopping or escape of stormwater from facility	Infiltration	<ul style="list-style-type: none"> <li>• Bioremediation activities to occur on pad with appropriate pad liner.</li> <li>• Sampling in accordance with internal sampling guidance.</li> <li>• Stormwater will be redirected away from the treatment facility.</li> <li>• Leachate and contaminated stormwater runoff will be directed to an impermeable leachate collection system with adequate capacity.</li> </ul> <p><b>Proposed Monitoring:</b></p> <ul style="list-style-type: none"> <li>• Sample and analysis to confirm contamination status in accordance with internal sampling guidance.</li> </ul>

### 3.1.2 Receptors

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

Red Hill station homestead and Mt. Stuart station homestead are not considered due to the distance.

Table 4 below provides a summary of potential human and 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 human and environmental receptors and distance from prescribed activity**

Environmental receptors	Distance from prescribed activity
Underlying groundwater	<p>Proclaimed Pilbara Groundwater Area</p> <p>Depth to groundwater at the closest bore to KBE WRL is approximately 35 mbgl.</p> <p>Depth to groundwater at the closest bore to CBE WRL’s is approximately 32 mbgl.</p> <p><b>Screened out from risk assessment due to depth below ground making a pathway for contaminants unlikely.</b></p>
Public drinking water source areas (PDWSA)	<p>P1 Protection Area Bungaroo Creek Water Reserve located approximately 20 km to the east northeast of the Project.</p> <p><b>Screened out from risk assessment due to the distance from discharge/emission points.</b></p>
Surface Water	Proclaimed Pilbara Surface Water Area within project area.
Major watercourses / water bodies	Within project area

<ul style="list-style-type: none"> <li>• Cane River</li> <li>• Red Hill Creek</li> </ul>	<p>DWER 2023 states the following:</p> <p><i>The project is intersected by the ephemeral Red Hill Creek and Cane River, tributaries to the Red Hill Sub-Catchment (of the larger Robe River Catchment) and Cane River Catchments respectively that flow from the Hamersley Ranges.</i></p>
<p>Groundwater Dependent Ecosystems (GDEs)</p>	<p>DWER 2023 states the following:</p> <p><i>Vegetation in these areas have a moderate to high dependence on groundwater, comprising of mainly Melaleuca and Eucalyptus species.</i></p>
<p>Threatened / Priority Ecological Communities (TEC) / (PEC)</p>	<p>No threatened flora within the proposed prescribed premises boundary.</p> <p>One PEC, <i>Triodia pisolitica</i> assemblages of mesas of the West Pilbara (P3) (<i>Triodia</i> PEC) has been identified within the proposed prescribed premises boundary and the surrounds.</p> <p>PEC is very adjacent to Kens Bore WRL.</p>
<p>Threatened / Priority Fauna</p>	<p>The following fauna are recorded within the project area.</p> <ul style="list-style-type: none"> <li>• Northern Quoll (<i>Dasyurus hallucatus</i>) (EN)</li> <li>• Pilbara Olive Python (<i>Liasis olivaceus barroni</i>) (VU)</li> <li>• Pilbara Leaf-nosed Bat (<i>Rhinonictis aurantia</i>) (VU)</li> <li>• Ghost Bat (<i>Macroderma gigas</i>) (VU)</li> <li>• Western Pebble-mound Mouse (<i>Pseudomys chapmani</i>) (P4)</li> </ul>
<p><b>Cultural receptors</b></p>	<p><b>Distance from activity / prescribed premises</b></p>
<p>Aboriginal heritage site</p>	<p>Native Title group with interests over the Premises area is the Robe River Kuruma (RRK) [WCD2016/006].</p> <p>Registered heritage sites are within the Project area.</p> <p>DWER 2023 states the following:  <i>Numerous heritage sites and places have been identified within and in close proximity to the Kens Bore Deposit and supporting infrastructure areas.</i></p>

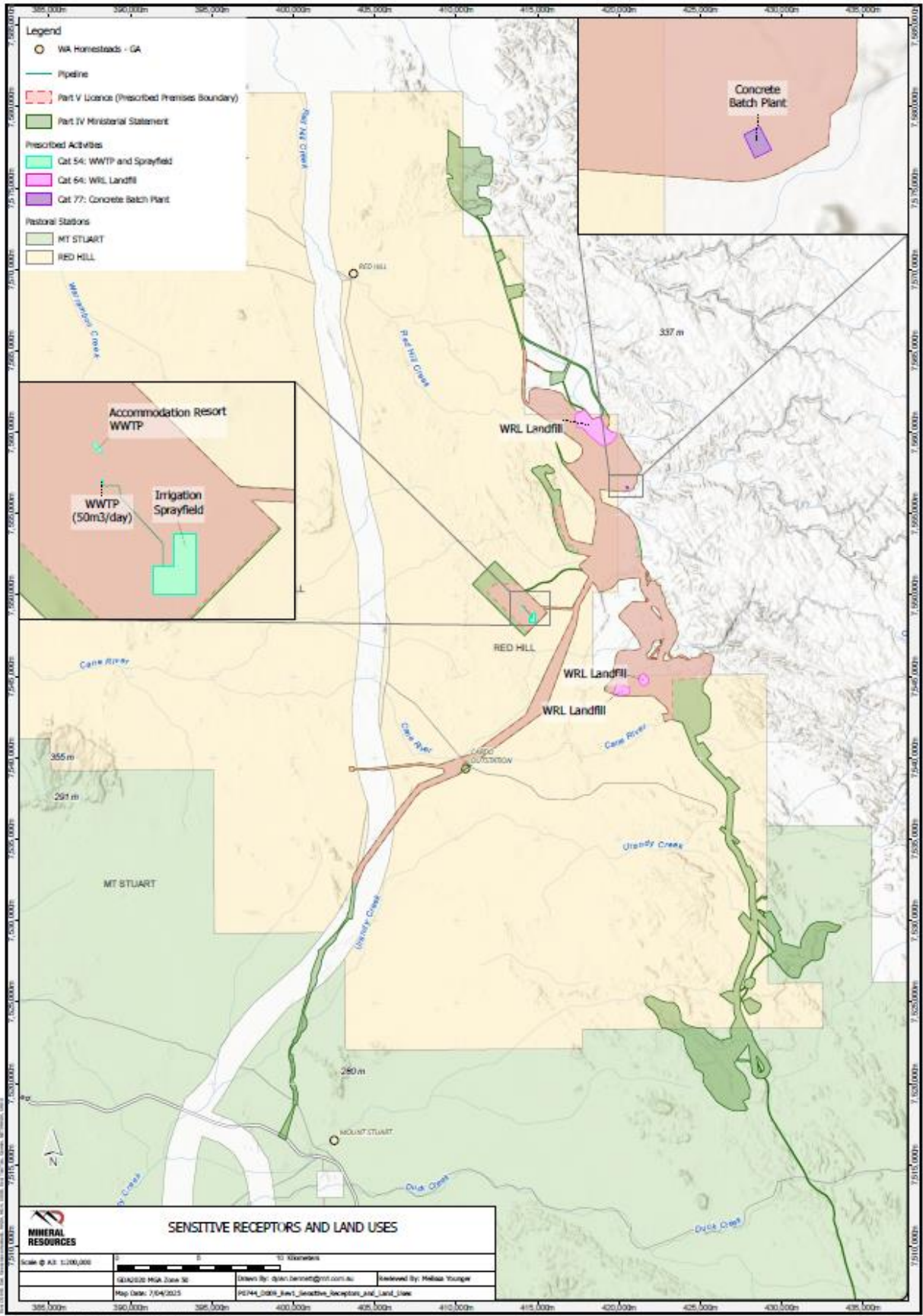


Figure 5: Distance to sensitive receptors

## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

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

The Revised Licence L9430/2024/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. categories 5, 64 and bioremediation facility activities.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

**Table 6. Risk assessment of potential emissions and discharges from the Premises during construction, commissioning and operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
<b>Construction of CBE landfills - Category 64 - Class II or III putrescible landfill site and bioremediation facility</b>								
Construction of CBE Landfills <ul style="list-style-type: none"> <li>• Movement of vehicles and earthmoving machineries on unsealed roads.</li> <li>• Ground excavation</li> <li>• General earthworks</li> </ul>	Dust	<b>Pathway:</b> Air/windborne pathway  <b>Impact:</b> Environmental Health	Surface water – Within the project area <ul style="list-style-type: none"> <li>• Cane River</li> <li>• Red Hill Creek</li> </ul> PEC - Premises boundary and the surrounds.	Refer to Section 3.1	C = Slight L = Possible  <b>Low Risk</b>	Y	The general provisions of the EP Act with respect to the causing of pollution and environmental harm applies.  The applicant also has obligations under Part IV of the EP Act - MS 1027 (refer to sections 2.7.1 and 2.7.2).	N/A
	Noise	<b>Pathway:</b> Air/windborne pathway  <b>Impact:</b> Noise and vibration impact on fauna habitats	Threatened / Priority Fauna	Refer to Section 3.1	C = Slight L = Unlikely  <b>Low Risk</b>	Y	<i>Environmental Protection (Noise) Regulations 1997</i> applies.  The applicant also has obligations under EPBC Act - Decision Notice 2009/4706 and associated Fauna Management Plan (refer to section 2.7.1).	N/A
Excavation, run-off from stockpiles and general earthworks	Contaminated stormwater (hydrocarbon and sediment)	<b>Pathway:</b> Overland run-off  <b>Impact:</b> Decreasing the environmental health	Surface water – Within the project area <ul style="list-style-type: none"> <li>• Cane River</li> <li>• Red Hill Creek</li> </ul> Aboriginal Heritage sites - Within the project area  PEC - Premises boundary and the surrounds.  GDE's	Refer to Section 3.1	C = Minor L = Possible  <b>Medium Risk</b>	Y	The general provisions of the EP Act with respect to the causing of pollution and environmental harm applies.  <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> also apply.	N/A
<b>Operation - Category 64 - Class II or III putrescible landfill site (Operation of CBE landfills and KB WRL landfills)</b>								

Risk Event					Risk rating <sup>1</sup>	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood			
<p>Delivery of waste to the landfill from the movement of vehicles on unsealed roads.</p> <p>Dust when capping and covering landfill material with waste material and</p> <p>Maintenance of the landfill.</p>	Dust	<p><b>Pathway:</b> Air/windborne pathway</p> <p><b>Impact:</b> Environmental Health and Smothering vegetation impacting photosynthesis</p>	<p>Surface water – Within the project area</p> <ul style="list-style-type: none"> <li>• Cane River</li> <li>• Red Hill Creek</li> </ul> <p>PEC - Premises boundary and the surrounds</p> <p>Threatened / Priority Fauna</p>	Refer to Section 3.1	<p>C = Slight</p> <p>L = Unlikely</p> <p><b>Low Risk</b></p>	Y	<p>Condition 6: Infrastructure and equipment – Operational requirements</p> <p>The applicant also has obligations under EPBC Act - Decision Notice 2009/4706 and associated Fauna Management Plan (refer to section 2.7.1), and- Part IV of the EP Act - MS 1027 (refer to sections 2.7.1 and 2.7.2)</p>	N/A
Vehicles and earthmoving machinery for landfill processing and maintenance.	Noise	<p><b>Pathway:</b> Air/windborne pathway</p> <p><b>Impact:</b> Noise and vibration impact on fauna habitats</p>	Threatened / Priority Fauna	Refer to Section 3.1	<p>C = Slight</p> <p>L = Unlikely</p> <p><b>Low Risk</b></p>	Y	<p><i>Environmental Protection (Noise) Regulations 1997</i> applies.</p> <p>The applicant also has obligations under EPBC Act - Decision Notice 2009/4706 and associated Fauna Management Plan (refer to section 2.7.1).</p>	N/A
Landfill fires causing smoke	<p>Emissions to Air – Smoke (gaseous, dust (PM2.5, PM10)).</p> <p>Air emissions associated with potential combustion of tyres may include VOCs, PAHs, dioxins, ash, NO<sub>x</sub> and CO<sub>2</sub></p>	<p><b>Pathway:</b> Air/windborne pathway</p> <p><b>Impact:</b> Health and amenity</p> <p>No residential areas nearby</p>	<p>No residential areas nearby</p> <p>Threatened / Priority Fauna</p> <p>PEC - Premises boundary and the surrounds.</p>	Refer to Section 3.1	<p>C = Major</p> <p>L = Unlikely</p> <p><b>Medium Risk</b></p>	Y	Condition 6: Operational requirements	N/A
Windblown waste may affect the local amenity	General waste	<p><b>Pathway:</b> Air/windborne</p>	Threatened / Priority	Refer to	C = Slight	Y	Condition 6: Operational	N/A

Risk Event					Risk rating <sup>1</sup>	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood			
		pathway <b>Impact:</b> Health and amenity - Attract feral animals impacting native fauna population and behaviour - No residential areas nearby	Fauna  PEC - Premises boundary and the surrounds.	Section 3.1	L = Possible  <b>Low Risk</b>		requirements	
Contaminated leachate from waste	Emissions to groundwater - Leachate	<b>Pathway:</b> Air/windborne pathway  <b>Impact:</b> Environmental health	GDE's	Refer to Section 3.1	C = Minor L = Possible  <b>Medium Risk</b>	Y	Condition 6: Operational requirements	N/A
Lighting to ensure safe operation of machinery and safe access to the premises	Emissions to Air – Light	<b>Pathway:</b> Air  <b>Impact:</b> Changes to native fauna behavior	Threatened / Priority Fauna	Refer to Section 3.1	C = Slight L = Possible  <b>Low Risk</b>	Y	Condition 6: Operational requirements	N/A
<b>Operation – Bioremediation facility</b>								
Ripping and tilling activities for treatment of soils	Dust	<b>Pathway:</b> Air/windborne pathway  <b>Impact:</b>	Surface water – Within the project area • Cane River • Red Hill Creek	Refer to Section 3.1	C = Slight L = Possible  <b>Low Risk</b>	Y	Condition 6: Operational requirements – Bioremediation facility	N/A

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
		Environmental health	PEC - Premises boundary and the surrounds.					
Aerobic/anaerobic treatment, ripping and tilling of soils for treatment	Odour and Volatile Organic Compounds (VOC's)	<b>Pathway:</b> Air/windborne pathway  <b>Impact:</b> Environmental health	PEC - Premises boundary and the surrounds.  Threatened / Priority Fauna	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 6: Operational requirements – Bioremediation facility	N/A
Insufficient storage / overtopping or escape of stormwater from facility	Leachate or Unauthorised Discharge	<b>Pathway:</b> Infiltration  <b>Impact:</b> Environmental health	Soil and surface water  PEC's  GDE's	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	N	<b><u>Condition 6: Operational requirements – Bioremediation facility</u></b>  <ul style="list-style-type: none"> <li>• <b><u>Impermeable base layer</u></b></li> <li>• <b><u>Spill kit and hydrocarbon waste bin</u></b></li> </ul>	The Delegated officer has reviewed the proposed applicant's controls related to construction and operation of the bioremediation facility and added additional 3 conditions as Impermeable base layer; Signage; and Spill kit and hydrocarbon waste bin.

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

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



## 4. 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 21 January 2025.	None received	N/A
Local Government Authority (Shire of Ashburton) advised of proposal 20 January 2025.	None received	N/A
Robe River Kuruma advised of proposal 20 January 2025.	None received	N/A
Licence Holder was provided with draft amendment on 28 March 2025.	Refer to Appendix 1	Refer to Appendix 1

## 5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

### 5.1 Summary of amendments

Table 8 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

**Table 8: Summary of licence amendments**

Condition no.	Proposed amendments
Cover page	Added the new category 64.
Licence History	Updated to include this amendment.
1, Table 1	Reworded the condition to include the waste acceptance criteria for Category 64 waste types.
2, Table 2	Amended the limit for RO brine process limit from 4,000 mg/L to 3,500 mg/L. This is not requested through the originally submitted amendment application.
3, Table 3	Included the new condition for the construction phase for CBE WRL landfill and Bioremediation facility.
4 and 5	Included the new conditions for compliance reporting for construction phase items.

6, Table 4	Included new conditions for operational phase for KB WRL landfill, CBE WRL landfill and Bioremediation facility.
Definitions	Added new definitions according to the new conditions.
Table numbers, Figure numbers and condition numbers	Adjusted accordingly.
Schedule 1, Figure 2	Deleted as per licence holder's request as it was used for the Works Approval Application and not relevant to the Licence.
Schedule 1, Figure 7, 8 and 9	Added three new figures according to the amendments requested

## 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. DWER 2019, *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)*, Joondalup, Western Australia.
5. DWER 2023, *Works Approval (W6769/2023/1) Decision Report*, Perth, Western Australia
6. Mineral Resources Limited (MRL) (2024a), *compiled attachments*, Perth, Western Australia.
7. Mineral Resources Limited (MRL) (2024b), *Licence Amendment Application Supporting Document Part V Licence Amendment Application – WPIOP Categories 5, 54, 64 And 77 West Pilbara Iron Ore Project*, Perth, Western Australia.

## Appendix 1: Summary of Licence Holder's comments on risk assessment and draft conditions

Condition	Summary of Licence Holder's comment	Department's response
1	Reworded the condition to include the waste acceptance criteria for Category 64 waste types.	The delegated officer considered the comments and updated the condition as required.
2	Amended the limit for RO brine process TDS limit from 4,000 mg/L to 3,500 mg/L. This was not requested through the originally submitted amendment application.	The delegated officer notes that this is an improvement in water quality that may be used for dust suppression and has updated the condition accordingly.
3, Table 3, Item 1	Deleted 1st and 7th bullet points in the draft licence as they are both repetitive of the 4th bullet point regarding putrescible waste and may be integrated into it.  The landfill cells will only be constructed when areas of the WRL become available as campaign waste dumping.	The delegated officer considered the comments and updated the condition as required.
3, Table 3, Item 2	Deleted the drafted bullet point 2 in the draft licence as it is not a construction requirement.  Reworded the drafted bullet point 4 to include the construction of impermeable leachate collection system or design of bioremediation facility to contain the leachate within the facility.  Reworded the drafted bullet point 5 to include the stormwater ingress controls to divert stormwater away from the bioremediation facility.	The delegated officer considered the comments and updated the condition as required.
6, Table 4	Updated the infrastructure locations (Figure references) accordingly.	Updated.
6, Table 4, category 64	Replaced the words "less than" by "at least" in the bullet points 6 and 7 under <i>all waste types</i> in the drafted licence conditions.  Amended the word "trenches" by "trenches/cells" in the bullet points 2 under <i>putrescible waste</i> in the drafted licence conditions.	The delegated officer has accepted and made the requested change.
6, Table 4, Bioremediation facility	Amended the word "Bioremediation plant" with "Bioremediation facility".  Deleted the drafted bullet point 6 in the drafted licence conditions due to the design consideration, as it was considered in the table 3.  Deleted the drafted bullet point 8 "Spill kit and hydrocarbon waste bin." No reason provided.  The applicant has commented the condition with the suggested changes are sufficient to manage landfill waste within a waste rock landform	The delegated officer has accepted and made the requested change.
7, Table 5	Updated the discharge point locations/figure references accordingly.	Updated.

Condition	Summary of Licence Holder's comment	Department's response
Figure 1, 8 and 9	The licence holder requested that the maps be updated with revised maps provided through the 21-day package. Maps are updated.	Updated.
Throughout the document	Corrected typographical or numerical errors.	Corrected
6 to Definitions table	Corrected the table numbers throughout the licence from condition 6.	Corrected.