Amendment Report

Application for Works Approval Amendment

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

Works Approval Number	W6088/2017/1
Works Approval Holder	Thunderbird Operations Pty Ltd
ACN	611 351 743
File Number	DER2017/001386-1
Premises	Thunderbird Mineral Sands Project Great Northern Hwy WATERBANK WA 6725 Legal description – Part of mining tenements M04/459, L04/84; L04/85 and L04/86 As defined by the premises maps attached to the revised works approval
Date of Report	18/08/2022
Decision	Revised works approval granted

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

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1. Decision summary

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 construction and time limited operations of the premises. As a result of this assessment, revised works approval W6088/2017/1 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 Application summary and overview of premises

Thunderbird Operations Pty Ltd (applicant, works approval holder) currently holds works approval W6088/2017/1 for categories 8, 54 and 89 under Part V of the *Environmental Protection Act 1986* (EP Act). The premises is approximately 66 km west-south-west of Derby and 91 km south-west of the town of Broome.

On 27 April 2022, the works approval holder submitted an application to the department to amend works approval W6088/2017/1 under section 59 and 59B of the EP Act.

This amendment is limited only to the following:

- adding mining tenements L04/84 and L04/86 to the prescribed premises boundary to incorporate all prescribed activity infrastructure within a single (continuous) prescribed premises boundary; and
- incorporating changes to category 8 (mineral sands mining or processing) and category 54 (sewage facility) activities within the existing works approval W6088/2017/1.

Table 1 provides further detail on the proposed changes to the activities being undertaken at the premises.

No changes to the requirements of the existing works approval relating to category 89 (putrescible landfill site) activities have been requested by the works approval holder.

The CEO has also determined to include minor administrative changes as part of the works approval amendment, these are limited only to:

- updating the format and appearance of the works approval;
- updating outdated figures; and
- correcting clerical mistakes and unintentional errors.

Table 1: Proposed changes

Prescribed premises category and description	Current assessed production or design capacity	Proposed changes to the production or design capacity	Description of proposed amendment
Category 8: Mineral sands mining or processing	12,500,000 tonnes per annual period (Stage 1) 25,000,000 tonnes per annual period (Stage 2)	No proposed changes to authorised production or design capacity. Processing Rates as below are added to the 'assessed capacity' table based on information submitted by the Applicant. • 9,000,000 tonnes per annual period (Stage 1) • 18,000,000 tonnes per annual period (Stage 2)	• Modifications to secondary process plant design (refer to Figure 1): ○ concentrate upgrade plant (CUP) consisting of a two-stage wet high intensity magnetic separator (WHIMS) circuit to perform the preliminary magnetic separation. ○ removal of the hot acid leach (HAL) circuit and wet and dry zircon processing plants – this infrastructure will not be constructed. ○ removal of the wet and dry zircon processing plants – this infrastructure will not be constructed. ○ three new products now generated at the premises: – magnetic concentrate (MC), a low-grade ilmenite product; – non-magnetic concentrate (NMC) product containing zircon and rutile; and – paramagnetic concentrate (PMC) co-product containing titanium units in combination with iron oxides and monazite. • Stockpile areas for each of the three new products with stormwater management in place (consisting of purpose-built drain and pond systems). • Reagent storage infrastructure no longer required – this infrastructure will not be constructed. As the HAL circuit has been removed from the process, use and storage of reagents (sulphuric acid, caustic soda and hydrated lime powder) will no longer be required. • Modifications to waste types and volumes: ○ Mineral Separation Plant (MSP) tailings and rejects (zircon plant rejects and ilmenite processing rejects) not produced and therefore disposal of these waste streams is not required; ○ HAL process removed and gypsum not produced and therefore

Prescribed premises category and description	Current assessed production or design capacity	Proposed changes to the production or design capacity	Description of proposed amendment
			disposal of this waste stream is not required; and ○ Storage of untreated magnetic material not required and therefore no stockpiling area required for this material. The works approval holder has advised that changes in product will not result in any new process waste streams. Therefore, the tailings geochemical characterisation assessment conducted by MBS Environmental in 2016 are still considered valid for the tailings proposed to be disposed of for the amended secondary process plant design. • Modifications to the design and function of the tailings storage facility (TSF): ○ The design of the current approved TSF water recovery system is a decant system. This comprised of a drainage well transferring supernatant water to the Stormwater Storage Pond (SSP). ○ The proposed new design will consist of a sump constructed inside the TSF at the lowest point, together with a channel cut into the TSF base to guide runoff into the sump. The sump will be high-density polyethylene (HDPE) lined. ○ A floating pump intake with skid mounted pump system will extract water from the sump and transfer this to the plant for re-use in ore processing. The works approval holder has advised that this proposed new design will improve water recovery during the early stages of operations and help to further reduce water losses to seepage and evaporation. • Modifications to the design and function of the SSP: ○ New single pond design with two cells (northern cell and southern cell): – northern cell:

Prescribed premises category and description	Current assessed production or design capacity	Proposed changes to the production or design capacity	Description of proposed amendment
			▪ unlined; ▪ compacted base graded down to report to the southern cell; ▪ sized to allow storage of TSF overflow from a 1:100 year average recurrence interval (ARI) event; ▪ no embankment between the northern and southern cells; and ▪ designed so stormwater and any overflow water from the TSF (from an overflow event) will report to the northern cell and flow to the lowest point of the SSP inside the southern cell, where it will be pumped back to the process plant for reuse. – southern cell: ▪ HDPE lined; ▪ topographically lower than northern cell; and ▪ base excavated to a depth of up to 3 m (depending on topography) to provide additional storage capacity to store approximately 0.6 GL of raw water from the borefield for supply to the process plant. *For noting:* *The works approval holder has advised that the SSP has been designed to accommodate the 0.6 GL raw water supply in the southern cell, together with the design storm (1: 100 AEP, 72-hour event) from the combined TSF and SSP system, as well as any lateral seepage from the TSF. Therefore, the size of the SSP has been reduced to match the revised required design capacity.* • Installation of one additional groundwater monitoring bore to accompany the five groundwater monitoring bores that will monitor the quality of groundwater surrounding the TSF and SPP facilities.

Prescribed premises category and description	Current assessed production or design capacity	Proposed changes to the production or design capacity	Description of proposed amendment
Category 54: Sewage facility	Wastewater treatment plant (WWTP) 1 – 100 m^3/day	No proposed changes	N/A
	Nil	WWTP 2 – 17.5 m^3/day	Construction and time limited operations of a new WWTP located adjacent to the ore processing area.
Category 89: Putrescible landfill site	1,100 tonnes per annual period	No proposed changes	N/A

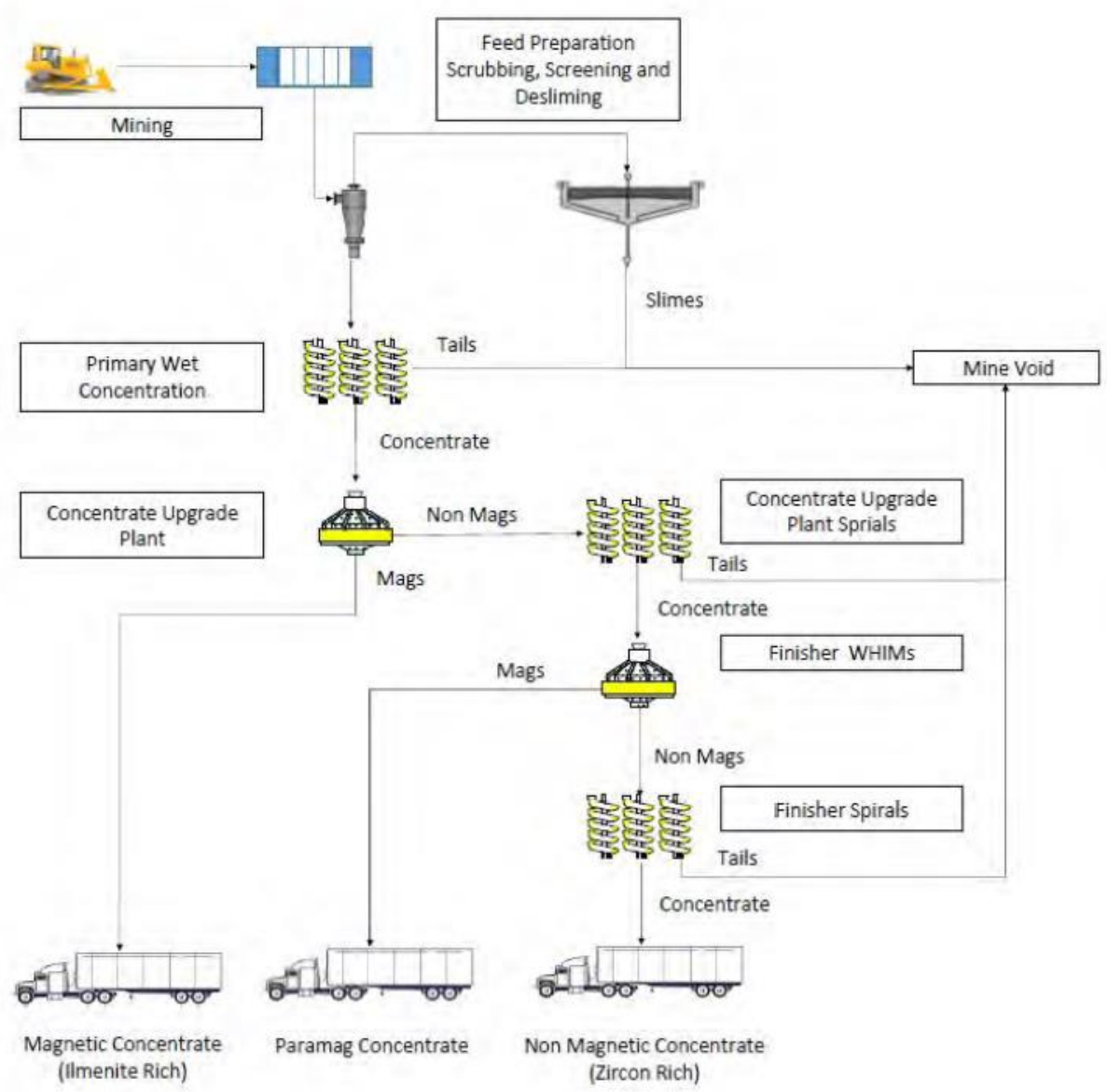

Figure 1: Ore processing process flow

2.3 Mining Proposal

The Mining Proposal (Registration ID: 76994) (MP 76994) seeking approval for the mining of heavy mineral sands, onsite primary and secondary processing of ore, disposal of process wastes into an above ground tailings storage facility (TSF) followed by progressive backfilling of the mine pit, development of infrastructure to support the project (including power generation facilities, accommodation village, administration and maintenance buildings, internal roads, communications infrastructure, borefield and waste storage and disposal facilities), upgrade and extension of the existing pastoral road (Mt Jowlaenga Homestead Road) and transport of mineral sand products was approved by the Department of Mines, Industry Regulation and Safety (DMIRS) on 13 September 2019.

The works approval holder has advised that a revision to MP 76994 is scheduled to be submitted in July 2022, which will address the proposed changes to category 8 and 54 operations. The works approval holder has noted that the proposed changes will not be implemented until approval of the revised Mining Proposal is granted.

Potential impacts from naturally occurring radioactive material (NORM) have not been considered in the Part V assessment given the management of radiological risk (to human health and the environment) from NORM is undertaken jointly by DMIRS and the Radiological Council of WA (RCWA).

2.4 Part IV of the EP Act

The Thunderbird Mineral Sands Project has been assessed under Part IV of the EP Act by the Environmental Protection Authority (EPA). It is subject to the requirements of Ministerial Statement 1080 (MS 1080). The EPA's assessment is provided in EPA Report 1606.

MS 1080 was published on 10 August 2018. There are no conditions directly related to management or control of emissions and discharges.

Included in the statement are conditions to manage groundwater abstraction and minimise direct and indirect impacts to the following:

- Terrestrial fauna, including:
  - Macrotis Lagotis (Greater Bilby); and
  - Dampier Peninsula goanna.
- Aboriginal Heritage.

Potential impacts to the Macrotis Lagotis (Greater Bilby) and Dampier Peninsula goanna, including any monitoring requirements, have not be considered in the Part V assessment given these have been considered under MS 1080.

MS 1080 provides requirements in relation to clearing of native vegetation within the mine site development envelope. Therefore, clearing activities have not been duplicated within works approval W6088/2017/1.

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 2020b).

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 2 below. Table 2 also details the proposed control measures the works approval holder has proposed to assist in controlling these emissions, where necessary.

Table 2 also details the control measures the works approval holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed applicant controls
Construction			
Dust	Mobile equipment (e.g. light vehicles and heavy equipment)	Air/Wind dispersion	No applicant controls proposed.
Stormwater (sediment laden)	Loose material (sediment) during construction/installation works	Overland runoff	No applicant controls proposed.
Time limited operations and operations			
Category 8: Mineral sands mining or processing			

Tailings decant (seepage) geochemically enriched in thorium, uranium, lead and selenium.
For noting:
The works approval holder has advised that these elements were not found to be mobile, even under artificially applied acidic conditions.
	Tailings disposal into TSF	Seepage via:
		• a channel cut into the TSF base;
		• base and walls of decant collection sump (HDPE lined); and/or
		• base and walls of unlined northern cell of SPP,
		resulting in potential impacts to groundwater and surface water quality (ephemeral creek lines) and potential for groundwater mounding with saline water entering root zone of native vegetation.
			• The decant collection sump will be HDPE lined with a hydraulic conductivity of 1 x 10^{-13} m/s to minimise seepage.
			• Monitoring:
			  ○ Six groundwater monitoring bores will be installed around the TSF and SPP perimeters.
			  ○ Quarterly monitoring to be undertaken as per requirements within work approval W6088/2017/1.
			For noting:
			• *The water balance model for the TSF and SPP was reviewed and updated by ATCW in February 2022, the works approval holder supplied a copy of this report with their amendment application.*

Category 85: sewage facility			

Emission	Sources	Potential pathways	Proposed applicant controls

Contaminated influent	WWTP 2	Overtopping of infrastructure to soil/sediment and/or infiltration to groundwater	• WWTP 2 infrastructure laid on compacted soil foundation.
			• WWTP 2 has contingency storage capacity for up to two days of normal flow if discharge is suspended while any problems are fixed.
			• Fitted with alarms to warn of an emergency. The unit can be isolated and shut down if required.
			• Monitoring:
			  ○ daily visual inspections of tanks and bunds (during commissioning); and
			  ○ continuous monitoring of effluent tank volume.
			• Incident management:
			  ○ spill or leaks will be recovered and WWTP 2 shut down for fault identification and repair (as required).
			For noting:
			• *The applicant provided the following information in relation to the WWTP 2 location:*
			  ○ *Then sites for the WWTP 2 and respective irrigation spray field were selected in accordance with the Department of Water (DoW) Water Quality Protection Note Irrigation with Nutrient Rich Wastewater (WQPN 22) (DoW 2008).*
			  ○ *The location is not permanently or seasonally inundated or waterlogged, it does not require artificial drainage or diversion of any natural watercourses and is not located within a Public Drinking Water Source Area or within 500 m of a defined wetland (including Ramsar, ANCA and Conservation Category wetlands) or any other sensitive water resource.*

Emission	Sources	Potential pathways	Proposed applicant controls

		Storage infrastructure leak/rupture and discharge to soil/sediment and/or infiltration to groundwater	• Commissioning activities will be undertaken to ensure sequences, controls and functionality are correct:
			  ○ Pre-shipping – engineering design and manufacturing checks in the factory before being sent to site;
			  ○ Pre-commissioning – static checks on unpowered equipment to confirm that the package plant has been installed according to specification. This phase is to be conducted without the addition of chemicals, water or wastewater;
			  ○ Wet commissioning – test operation of the package plant and all associated tanks and pipework with water. This phase will not begin until pre-commissioning tests have been passed; and
			  ○ Commissioning – test operation of equipment and facilities with chemicals and wastewater. This phase will not begin until wet commissioning tests have been passed.
			• A commissioning report for WWTP 2 will be submitted within three months of the completion of commissioning to provide a summary of the environmental performance of WWTP 2 against the design specifications.
			• Operators of WWTP 2 will be trained in testing and maintenance procedures to ensure the plant is operated in accordance with the manufacturer's specifications.
			• WWTP 2 contingency storage capacity for up to two days of normal flow if discharge is suspended while any problems are fixed.
			• Monitoring:
			  ○ daily visual inspections of tanks and bunds (during commissioning).

Emission	Sources	Potential pathways	Proposed applicant controls
			○ continuous monitoring of effluent tank volume. • Incident management: ○ spill or leaks will be recovered and WWTP 2 shut down for fault identification and repair (as required).
		Pipeline leak/rupture and discharge to soil/sediment and/or infiltration to groundwater	• Pipeline specifications: ○ HDPE piping and joiners. • Commissioning activities will be undertaken to ensure sequences, controls and functionality are correct: ○ pre-shipping – engineering design and manufacturing checks in the factory before being sent to site; ○ pre-commissioning – static checks on unpowered equipment to confirm that the package plant has been installed according to specification. This phase is to be conducted without the addition of chemicals, water or wastewater; ○ wet commissioning – test operation of the package plant and all associated tanks and pipework with water. This phase will not begin until pre-commissioning tests have been passed; and ○ commissioning – test operation of equipment and facilities with chemicals and wastewater. This phase will not begin until wet commissioning tests have been passed. • Operators WWTP 2 will be trained in testing and maintenance procedures to ensure the plant is operated in accordance with the manufacturer's specifications. • A commissioning report for WWTP 2 will be submitted within three months of the completion of commissioning to provide a summary of the environmental performance of WWTP 2 against the design specifications.

Emission	Sources	Potential pathways	Proposed applicant controls

			• Monitoring:
			  ○ daily visual inspections of wastewater and effluent lines (during commissioning)
			• Incident management:
			  ○ spill or leaks will be recovered and WWTP 2 shut down for fault identification and repair (as required).

Treated effluent (wastewater from WWTP 2)		Direct discharge to land, with infiltration to groundwater	• WWTP 2 specifications:
			  ○ return activated sludge process and flocculant dosing for the removal of phosphorus.
			• Effluent discharge from the WWTP 2 is via sprinklers to maximise evaporation.
			• Discharge will be managed to allow irrigated treated water to infiltrate or evaporate and prevent surface ponding or runoff from the irrigation spray field area.
			• Wastewater output limits:
			  ○ biochemical oxygen demand (BOD) – <20 mg/L
			  ○ total suspended solids (TSS) – <30 mg/L
			  ○ total nitrogen (TN) – <20 mg/L
			  ○ total phosphorous (TP) – <2 mg/L
			  ○ pH – 6.5 to 8.5
			  ○ *Escherichia coli bacterial* (E.coli) – <10 coliform forming units per 100 mL (cfu/100mL)
			  ○ free chlorine – 0.5-2 mg/L
			• Monitoring:
			  ○ regularly inspected and discharge suspended if WWTP 2 operating below the required standard.
			  ○ continuous monitoring of effluent flow rate (when

Emission	Sources	Potential pathways	Proposed applicant controls
			discharge to irrigation spray field commences). ○ weekly monitoring of effluent parameters: – all water quality monitoring will be undertaken in accordance with the AS/NZS 5667 and 4276 series of standards and the Standard Recycled Water Sampling Technique, Department of Health 2016). – water quality samples will be submitted to a National Association of Testing Authorities, Australia (NATA) accredited laboratory for analysis in accordance with the current Standard Method for Examination of Water and Wastewater, American Public Health Association (APHA) 2012. – monitoring data will be reviewed by a competent person as soon as it is available, to identify any trends of concern or exceedances of provisional trigger values. ○ continuous monitoring (chlorine analyser) of residual free chlorine concentration in treated effluent. *For noting:* • *The applicant provided the following information in relation to the WWTP 2 location:* ○ *Then sites for the WWTP 2 and respective irrigation spray field were selected in accordance with the Department of Water (DoW) Water Quality Protection Note Irrigation with Nutrient Rich Wastewater (WQPN 22) (DoW 2008).* ○ *The location is not permanently or seasonally inundated or waterlogged, it does not require artificial drainage or diversion of any natural watercourses and is not located within a Public Drinking Water Source Area or within 500 m of a defined wetland*

Emission	Sources	Potential pathways	Proposed applicant controls
			(including Ramsar, ANCA and Conservation Category wetlands) or any other sensitive water resource.
		Irrigation spray field accessible to threatened/priority fauna, native fauna and/or livestock	The WWTP 2 irrigation spray field area enclosed with a fence around the entire perimeter to restrict access to the area.
Contaminated stormwater – runoff of treated effluent (wastewater from WWTP 2)		Overland flow to soil/sediment and/or infiltration to groundwater	No specific applicant controls provided. *For noting:* • *The applicant provided the following information in relation to the WWTP 2 location:* ○ *Then sites for the WWTP 2 and respective irrigation spray field were selected in accordance with the Department of Water (DoW) Water Quality Protection Note Irrigation with Nutrient Rich Wastewater (WQPN 22) (DoW 2008).* ○ *The location is not permanently or seasonally inundated or waterlogged, it does not require artificial drainage or diversion of any natural watercourses and is not located within a Public Drinking Water Source Area or within 500 m of a defined wetland (including Ramsar, ANCA and Conservation Category wetlands) or any other sensitive water resource.*

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020b), the Delegated Officer has excluded employees, visitors and contractors of the works approval 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.

Table 3 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 2020a)).

Table 3: Sensitive human and environmental receptors and distance from prescribed activities

Sensitive receptors	Distance from prescribed activities	Pathway assessment
Human receptors		
Mt Jowlaenga homestead *For noting:* • *the works approval amendment application states that this homestead is abandoned*	Located approximately 7.5 km south-east of the proposed category 8 (Mineral sands mining or processing) and 54 (sewage facility) operations. Distance of prescribed premises activities to the sensitive land use and homestead considered to be abandoned are sufficient to inform that project activity impacts as not foreseeable. Human receptors are not considered to be impacted during construction or operations and therefore not further considered in the risk assessment.	None.
Environmental receptors		
Surface water bodies	Surface water bodies generally flow in an easterly direction towards Fraser River (MBS 2019). The Fraser River is located approximately 7 km north of the prescribed premises boundary, with tributaries that extend down to the north of the premises: • Three ephemeral creek lines located adjacent to category 8 (Mineral sands mining or processing) along northern boundary of the prescribed premises; • One ephemeral creek line located approximately 2.5 km south of the proposed category 8 (mineral sands mining or processing) operations; and • One ephemeral creek line located approximately 2 km east of the proposed category 8 (mineral sands mining or processing) and 54 (sewage facility) operations. Distance of prescribed premises activities to this single ephemeral creek line are sufficient to inform that project activity	**Time limited operations and operations** Potential impacts to surface water quality (ephemeral creek lines) via: • Seepage through a channel cut into the TSF; • Seepage through base and walls of decant collection sump (HDPE lined); and/or • Seepage through base and walls of unlined northern cell of SPP.

Sensitive receptors	Distance from prescribed activities	Pathway assessment
	impacts as not foreseeable. This receptor is not considered to be impacted during construction or operations and therefore not further considered in the risk assessment. All watercourses within the prescribed premises area remain dry during the dry season (MBS 2022).	
Groundwater	Premises is located within the Canning-Kimberley groundwater area Groundwater Area proclaimed under *Rights in Water and Irrigation Act 1914*. Groundwater is considered brackish to saline at 1,000 to 3,000 mg/L Total Dissolved Solids (TDS) (DWER Geocortex). The depth to groundwater is between 44 metres below ground level (mbgl) on elevated ground and 23 mbgl in local areas adjacent to drainage lines (MBS 2022). Groundwater generally flows in a southerly direction (MBS 2019).	**Time limited operations and operations** Potential impacts to groundwater quality via: • Seepage through a channel cut into the TSF; • Seepage through base and walls of decant collection sump (HDPE lined); • Seepage through base and walls of unlined northern cell of SPP; • Discharges of untreated/treated effluent from WWTP 2 pipeline ruptures or leaks to soil and groundwater; and/or • Direct discharge, runoff or drift of treated effluent from WWTP 2 to soil and infiltration to groundwater.
Subterranean fauna	A Level 1 subterranean fauna survey of the mine site development envelope was undertaken in March 2014, which concluded the following (MBS 2022): • Results identified a low diversity and abundance of subterranean fauna; • No stygofauna were recorded during the survey; • Only a single specimen (Staphylinidae sp. Indet) was recorded from bore THAC 407. As such, it is likely that habitat occurs within the mine site development envelope but, given the relatively continuous and expansive geology outside of this area and with no obvious dispersal barriers, this species is unlikely to have a restricted distribution and may occur within the	None.

Sensitive receptors	Distance from prescribed activities	Pathway assessment
	extensive sandstone habitats in the ranges to the east and north of the project. Considering the above, subterranean fauna are not considered to be impacted during construction or operations and therefore not further considered in the risk assessment.	
Threatened and priority flora	Two Priority 3 flora species located approximately 1.5 km north of category 8 (Mineral sands mining or processing) operations (DWER Geocortex). Distances of these prescribed activities to the priority flora is sufficient to inform that project activity impacts as not foreseeable. Priority flora are not considered to be impacted during construction or operations and therefore not further considered in the risk assessment. Threatened Ecological Communities or Priority Ecological Communities are located approximately 14 km north-east from the proposed prescribed activities. Distance of prescribed premises activities to the Lowangan Land System is sufficient to inform that project activity impacts as not foreseeable. The Lowangan Land System is not considered to be impacted during construction or operations and therefore not further considered in the risk assessment.	None.

Native vegetation	Native vegetation located adjacent to the proposed category 8 (Mineral sands mining or processing) and 54 (sewage facility) operations.
	
	Five flora and native vegetation survey areas have been conducted over the project area and surrounds, which conclude the following (MBS 2022):
	• 15 vegetation communities were defined and mapped;
	• Two of the pindan vegetation communities (low sparse eucalypt woodlands over *Acacia tumida* shrubland over *Triodia/Chrysopogon* grasslands), accounted for approximately 86% of the surveyed area and were considered the most representative of the mine site development envelope;
	• The other main communities mapped were associated with the drainage channels (*Melaleuca viridiflora/Melaleuca alsophila* woodland) and rocky hills; and
	• Vegetation associated with the hills and drainage channels within the mine site
		Construction
		
		Potential impacts to native vegetation health via:
		• Air/wind dispersion of dust; and/or
		• Overland runoff of sediment laden stormwater.
		
		Time limited operations and operations
		
		Potential impacts to native vegetation health via:
		• Seepage via:
		  ○ a channel cut into the TSF base;
		  ○ base and walls of decant collection sump (HDPE lined); and/or
		  ○ base and walls of unlined northern cell of SPP,

Sensitive receptors	Distance from prescribed activities	Pathway assessment
	development envelope were statistically different from the vegetation communities defined on the flats.	resulting in groundwater mounding and saline water entering root zone of native vegetation. • Discharges of untreated/treated effluent from WWTP 2 pipeline ruptures or leaks; and/or • Direct discharge, runoff or drift of treated effluent from WWTP 2.
Threatened and priority fauna	Four Level 1 and 2 fauna assessments were undertaken for the mine site development envelope and surrounding areas between 2012 and 2016, these conclude the following (MBS 2022): • Nine conservation significant fauna species recorded within the wider survey area; however, only three were recorded within the prescribed premise boundary (Greater Bilby, Short-tailed Mouse and Rainbow Bee-eater). *For noting:* • *Potential impacts to the Macrotis Lagotis (Greater Bilby), including any monitoring requirements, have not be considered in the Part V assessment given these have been considered under MS 1080.*	**Time limited operations and operations** Potential impacts to threatened/priority fauna, native fauna and livestock via gaining access to WWTP 2 irrigation spray field.
Native fauna	Four Level 1 and 2 fauna assessments were undertaken for the mine site development envelope and surrounding areas between 2012 and 2016, these conclude the following (MBS 2022): • A total of 20 mammals, 118 birds, 44 reptiles and 8 amphibians occurring within the mine site development envelope or surrounding areas.	
Livestock (cattle) located within Mt Jowlaenga Pastoral Station Pastoral station is owned by Yeeda Pastoral Company Pty Ltd and produces beef products	The prescribed premises is located within the Mt Jowlaenga Pastoral Station.	

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020b) for those emission sources which are proposed to change and considers 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 works approval 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 works approval holder'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 works approval holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The revised works approval W6088/2017/1 that accompanies this amendment report authorises construction and time limited operations. The conditions in the revised works approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises i.e. category 8, 54 and 89 activities. A risk assessment for the construction, time limited operations and operations phase have been included in this amendment report, however licence conditions will not be finalised until the department assesses the licence application.

Table 4. Risk assessment of potential emissions and discharges from the premises during construction, time limited operations and operations

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	**Potential emission**	**Potential pathways**	**Potential adverse impacts**	**Receptors**	**Applicant controls**				
Construction									
Source: • Movement of mobile equipment (e.g. light vehicles and heavy equipment) Activities: • Modifications to the secondary process plant, TSF and SPP; and • Construction and installation of WWTP 2	Dust	Air/Wind dispersion	Impacts to native vegetation health	Native vegetation	Refer to section 3.1.1	C = Slight L = Possible **Low Risk**	No	N/A	The department notes that the general provisions of the EP Act, *Environmental Protection (Unauthorised Discharges) Regulations 2004* (UDRs) and associated regulations are available to regulate dust and sediment emissions during construction activities.
Source: • Loose material (sediment) during construction/installation works Activities: • Stormwater migrating through construction areas	Stormwater (sediment laden)	Overland runoff	Impacts to native vegetation health	Native vegetation	Refer to section 3.1.1	C = Minor L = Possible **Medium Risk**	No	N/A	
Time limited operations and operations									
Category 8: Mineral sands mining or processing									
Tailings disposal into TSF	Tailings decant	Seepage via:	Reduced quality or	Land/Soil	Refer to section	C = Moderate	Yes	Condition 11 (item 1,	N/A

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	**Potential emission**	**Potential pathways**	**Potential adverse impacts**	**Receptors**	**Applicant controls**				
	(seepage) geochemically enriched in thorium, uranium, lead and selenium. *For noting:* *The works approval holder has advised that these elements were not found to be mobile, even under artificially applied acidic conditions.*	• a channel cut into the TSF base; • base and walls of decant collection sump (HDPE lined); and/or • base and walls of unlined northern cell of SPP, resulting in potential impacts to groundwater and surface water quality (ephemeral creek lines) and potential for groundwater mounding with saline water entering root zone of native vegetation.	contamination of soil/sediment, surface waters (ephemeral creek lines) and/or groundwater Impacts to native vegetation health	Groundwater (approximately 23 mbgl) Surface waters (ephemeral creek lines) Native vegetation	3.1.1	L = Possible **Medium Risk**		Schedule 3)	
Category 54: sewage facility									
Source: • WWTP 2 Activities: • Operation of the	Contaminated influent	Overtopping of infrastructure to soil/sediment and/or infiltration to groundwater Storage	Reduced quality or contamination of soil/sediment and/or	Land/Soil Groundwater (approximately 23 mbgl) Native vegetation	Refer to section 3.1.1	C = Moderate L = Possible **Medium Risk**	No	Condition 1 (WWTP 2, items f, g, l and n) **Condition 1 (WWTP 2,**	Additional regulatory requirements applied to: • provide clearer storage/pipeline infrastructure

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	**Potential emission**	**Potential pathways**	**Potential adverse impacts**	**Receptors**	**Applicant controls**				
WWTP 2		infrastructure leak/rupture and discharge to soil/sediment and/or infiltration to groundwater	groundwater Impacts to native vegetation health					**items a, b, c, d, e, j, k, l and m)** Condition 11 (item 2, Schedule 3) **Condition 11 (item 2, Schedule 3)**	construction and stormwater management requirements; • include daily visual inspections to check the integrity of infrastructure; • ensure infrastructure is maintained; and • ensure appropriate management of sludge prior to removal from site.
		Pipeline leak/rupture and discharge to soil/sediment and/or infiltration to groundwater							
Source: • WWTP 2 Activities: • Discharge of treated effluent to WWTP 2 irrigation spray field	Treated effluent (wastewater from WWTP 2)	Direct discharge to land, with infiltration to groundwater			Refer to section 3.1.1	C = Slight L = Possible **Low Risk**	No	Condition 1 (WWTP 2, item h) Condition 11 (item 3, Schedule 3) **Condition 11 (item 3, Schedule 3)** Condition 19 **Conditions 20 and 21**	Additional regulatory requirements applied to: • include daily visual inspections to check the integrity of infrastructure; • ensure treated effluent application is not undertaken during significant rainfall events; • prevent ponding

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	**Potential emission**	**Potential pathways**	**Potential adverse impacts**	**Receptors**	**Applicant controls**				
									and pooling of effluent on the ground surface of the irrigation discharge area; • ensure infrastructure is maintained; and • investigate and report any exceedances against wastewater output limits for the WWTP.
		Irrigation spray field accessible to threatened/priority fauna, native fauna and/or livestock	Ingestion affecting health of fauna	Threatened/priority fauna, native fauna and/or livestock	Refer to section 3.1.1	C = Slight L = Possible **Low Risk**	No	Condition 1 (Irrigation spray field (WWTP 2), items a, b and c) **Condition 1 (Irrigation spray field (WWTP 2), item d)**	Additional regulatory requirement applied to include a minimum 5 metre spray drift buffer between the edge of the sprinkler radius and the perimeter fence.

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	**Potential emission**	**Potential pathways**	**Potential adverse impacts**	**Receptors**	**Applicant controls**				
	Contaminated stormwater – runoff of treated effluent (wastewater from WWTP 2)	Overland flow to soil/sediment and/or infiltration to groundwater	Reduced quality or contamination of soil/sediment and/or groundwater Impacts to native vegetation health	Land/Soil Groundwater (approximately 23 mbgl) Native vegetation	Refer to section 3.1.1	C = Slight L = Possible **Low Risk**	No	**Condition 11 (Schedule 3)**	Additional regulatory requirements applied to ensure treated effluent application is not undertaken during significant rainfall events.

Note [1]: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020b).
Note [2]: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Local Government Authority advised of proposal on 24 June 2022	The Shire of Broome (Shire) responded on 5 July 2022 and advised that the proposed WWTP 2 requires Department of Health and Shire approval.	On 14 July 2022, the department issued an under-assessment request for information (RFI) to the works approval holder requesting confirmation that the WWTP 2 had been approved by the Shire and Department of Health (DoH). On 20 July 2022, the works approval holder responded to the RFI request advising that WWTP 2 approvals are being sought through the Shire and DoH.
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal on 24 June 2022	DMIRS responded on 20 July 2022 advising that: • *Mining Act 1978* (Mining Act) approval had not been sought for modifications to the previously approved (via Reg ID 76994) design of the TSF and associated SSP and that approvals will be required (prior to modification works commencing) in order for the project to remain compliant with tenement conditions; and • Mining Act approval has not been sought for an additional WWTP to be constructed on M04/459 and that approval will be required (prior to construction of WWTP 2) in order for the project to remain compliant with tenement conditions.	The works approval holder has advised that a revision to MP 76994 is scheduled to be submitted in July 2022, which will address the proposed changes to category 8 and 54 operations. The works approval holder has noted that the proposed changes will not be implemented until approval of the revised Mining Proposal is granted.
Applicant was provided with draft documents on 3 August 2022	10 August 2022 Applicant provided comments as detailed in Appendix 1: Summary of works approval holder's comments on risk assessment and draft conditions Appendix 1: Summary of works approval holder's comments on risk assessment and draft conditions	The Delegated Office has provided a response in Appendix 1: Summary of works approval holder's comments on risk assessment and draft conditions.

5. Conclusion

Based on the assessment in this amendment report, the Delegated Officer has determined that a revised works approval will be granted, subject to conditions commensurate with the

determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the revised works approval as part of the amendment process.

Table 6: Summary of licence amendments

Relevant section or condition No.	Proposed amendments

Cover page	• Date of amendment updated to reflect granting date of the latest works approval amendment.
	• Under 'Premises details' the following text has been updated:
	  ○ 'Part of mining tenements:' included; and
	  ○ The following mining tenements have been added to the prescribed premises boundary to incorporate all prescribed activity infrastructure within a single (continuous) prescribed premises boundary:
	  – L04/84; and
	  – L04/86
	• The following update has been made to the 'Prescribed premises category description' table:
	  ○ Category 8: processing rates for Stage 1 and 2 added based on applicant submission
	  ○ WWTP 2 incorporated under Category 54: Sewage facility.

Works approval history	Updated to include works approval amendment details.
Interpretation	Updated text to reflect wording from new works approval template (v5.0, dated February 2020).
Throughout works approval	The following items have been updated throughout the works approval: • Premises and Department are now demonstrated in lower case; • Spacing between figures and their respective units; • Values updated to superscript or subscript text as required; • Updates to cross referencing of conditions, tables and figures for accuracy purposes; • Acronyms expanded for clarity purposes; • Inclusion of the text 'calendar' prior to reference to days to provide clarity that the timeframes provided are consecutive days; • Heading updates for clarity purposes and to align with the department's revised works approval template: ○ Inclusion of a new heading 'Sewage facility monitoring'.

Relevant section or condition No.	Proposed amendments
	○ Rewording of existing heading ‘Time limited operational phase’ to ‘Time limited operations phase’; and ○ Rewording of existing heading ‘Emissions’ to ‘Emissions and discharges.
Condition 1 (Table 1)	• WWTP 1: ○ Updating existing sewage treatment plant design and construction requirements to specify that these were for WWTP 1. • WWTP 2: ○ Inclusion of design and construction requirements for WWTP 2 and the respective irrigation spray field. ○ Inclusion of Schedule 3, which contains revised drawings provided with the works approval amendment application. • TSF and SPP: ○ Updating text for the TSF and SPP design and construction requirements to reference the revised drawings (Schedule 3) ○ Inclusion of the design and construction requirements for the additional groundwater monitoring bore proposed by the works approval holder. ○ Updating text for the groundwater monitoring bore design and construction requirements to reference the monitoring bore location map (Figure 19, Schedule 3). ○ Inclusion of permeability requirements for the TSF and SPP base and liners. • Secondary process plant design: ○ Removal of design and construction requirements for the following infrastructure as they will no longer be constructed: – HAL circuit and wet and dry zircon processing plants; – Reagent storage infrastructure. As the HAL circuit has been removed from the process, use and storage of reagents (sulphuric acid, caustic soda and hydrated lime powder) will no longer be required; and – MSP primary dry mill.
Condition 2	Inclusion of condition (d) requiring photographs of ‘as constructed’ infrastructure to be provided with the Environmental Compliance Report (ECR).
Condition 10	Updated the time limited operational phase from 90 to 180 calendar days to allow the works approval holder additional time to undertake the process for transitioning from a works approval to a licence.
Condition 11 (Schedule 3)	Inclusion of operational requirements during time limited operations.

Relevant section or condition No.	Proposed amendments
Condition 13 (Table 3)	Condition text updated to better reflect the authorised discharges undertaken at the premises for the sewage facility.
Condition 15 (b)	Removal of reference to AS 2531 as this is obsolete and inclusion of reference to AS/NZS 5667.10.
Conditions 19, 20 and 21	• Inclusion of sewage facility monitoring requirements for WWTP 1 and WWTP 2. • Inclusion of requirements to investigate and report any exceedances against wastewater output limits for WWTP 1 and WWTP 2.
Condition 22 (Table 7)	• Updating labelling for groundwater monitoring bore reference points. • Inclusion of monitoring requirements for the additional groundwater monitoring bore proposed by the works approval holder.
Definitions (Table 8)	• Definitions for the following terms have been included: o AS/NZS 5667.10; o BCM; o Category / categories; o CEO (minor modification of text to reflect current department definition); o cfu/100 mL; o department (minor modification of text to reflect current department definition); o E.coli; o Freeboard; o m; o mbgl; o mg/L; o m^3/day; o mm; o m/s; o Significant rainfall event; o SWL; and o WWTP.
Schedule 1: Maps (Premises map) – Figure 1	The prescribed premises map has been replaced with a newer version, dated 21/07/2022.
Schedule 1: Maps (Map of prescribed premises infrastructure) – Figure 2	A prescribed premises infrastructure map has been included.

Relevant section or condition No.	Proposed amendments
Schedule 2: Emissions and discharge monitoring during time limited operations	Inclusion of emission and discharge monitoring requirements for the two sewage facilities (WWTP 1 and WWTP 2).
Schedule 3: Infrastructure and equipment requirements during time limited operations	Inclusion of time limited operational requirements for: • TSF and SPP; and • Two sewage facilities (WWTP 1 and WWTP 2).
Schedule 4: PFD Drawings	The PFD drawings table has been updated to remove reference to drawings for infrastructure that is no longer being constructed.
Schedule 5: TSF and SPP Drawings	Inclusion of updated TSF and SPP drawings that were provided with the works approval amendment application.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water (DoW) 2008, *Water Quality Protection Note (WQPN) 22: Irrigation with nutrient-rich wastewater*, Perth, Western Australia. Accessed via DWER's website: https://www.water.wa.gov.au/__data/assets/pdf_file/0013/4045/82324.pdf.
3. Department of Water and Environmental Regulation (DWER) 2020a, *Guideline: Environmental siting*, Perth, Western Australia.
4. DWER 2020b, *Guideline: Risk assessments*, Perth, Western Australia.
5. MBS Environmental (MBS) 2022, *Thunderbird Mineral Sands Project, Works Approval W6088/2017/1, Amendment Application, Attachment 7 – Siting*, West Perth, Western Australia.
6. MBS Environmental (MBS) 2019, *Mining Proposal, Thunderbird Mineral Sands Project, Construction and Mining (Years 1 - 3)*, West Perth, Western Australia.

Appendix 1: Summary of works approval holder's comments on risk assessment and draft conditions

Condition	Summary of works approval holder's comment	Department's response
Cover page	Category 54: Sewage facility As per Table 1 of Attachment 3B: WWTP 1 (100m^3/day) WWTP 2 (17.5m^3/day)	The updates have been made as requested by the applicant.
Page 8 Table 1	Landfill No change to requirements. Please note Landfill as-built design in Construction Compliance Report submitted to DWER on 30 May 2022	Noted.
8 Table 1	Phase 3 – Construction of TSF and SSP The specified permeabilities are correct as per ATCW design. However, upon review ATCW have recommended instead of referring to foundation permeability, the compaction of foundations should be specified as a minimum compaction of 92% SMDD@OMC±4% for both TSF and SSP.	It is a standard requirement for tailings storage facilities and similar waste disposal facilities to condition the specified permeabilities as per the design. Therefore, the condition has not been amended.
9 Table 1	Phase 4 and 5 Construction Process Plant Remove reference to MSP1 &2 Drawings to be replaced as requested with those provided in Appendix 1 of Attachment 3B	References to MSP1 &2 have been removed as requested by the applicant. As detailed in your works approval amendment application Part 5.2, all drawings have been updated as requested.
10 Table 1	Process water supply system Drawings to be replaced as requested - those provided in Appendix 2 of Attachment 3B.	As detailed in your works approval amendment application Part 5.2, all drawings have been updated as requested.
10 Table 1	Non-magnetic stockpiles Non-magnetic stockpiles – Drawing to be replaced as requested – drawing provided in Appendix 2 of Attachment 3B.	As detailed in your works approval amendment application Part 5.2, all drawings have been updated as requested.
13 Table 5	Processing Ore	References to MSP have been removed as requested by the applicant.

Condition	Summary of works approval holder's comment	Department's response
	Remove reference to MSP	
Schedule 1	Maps Remove and replace Figure 1 map – the Prescribed premises map has been replaced with version dated 21/07/2022 (provided via email 21/07/2022/>	Figure 1: Map of the boundary of the prescribed premises has been updated with the map provided on 21/07/2022.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)					
Application type					
~~Works approval~~	☐				
~~Licence~~	☐	~~Relevant works approval number:~~		~~None~~	☐
		~~Has the works approval been complied with?~~		~~Yes ☐ No ☐~~	
		~~Has time limited operations under the works approval demonstrated acceptable operations?~~		~~Yes ☐ No ☐ N/A ☐~~	
		~~Environmental Compliance Report / Critical Containment Infrastructure Report submitted?~~		~~Yes ☐ No ☐~~	
		~~Date Report received:~~			
~~Renewal~~	☐	~~Current licence number:~~			
Amendment to works approval	☒	Current works approval number:	W6088/2017/1		
~~Amendment to licence~~	☐	~~Current licence number:~~			
		~~Relevant works approval number:~~		~~N/A~~	☐
~~Registration~~	☐	~~Current works approval number:~~		~~None~~	☐
Date application received		27 April 2022			
Applicant and Premises details					
Applicant name/s (full legal name/s)		Thunderbird Operations Pty Ltd			
Premises name		Thunderbird Mineral Sands Project			
Premises location		Part of mining tenements M04/459 and L04/85 Great Northern Hwy WATERBANK WA 6725			
Local Government Authority		Shire of Broome			
Application documents					
HPCM file reference number:		DER2017/001386-1			
Key application documents (additional to application form):		Trim documents (DWERDT595377 and DWERDT595374): • Updated prescribed premises maps • Attachment 7 – Siting • Attachment 3 A – Wastewater Treatment Plan 2, Commissioning Plan • Attachment 3B – Project Activities • Attachment 5 – Stakeholder Engagement			
Scope of application/assessment					

Summary of proposed activities or changes to existing operations.	**Works approval amendment**
	• Category 8: Mineral sands mining or processing:
	  ○ Modifications to the secondary process plant design; and
	  ○ Modifications to the design and function of the tailings storage facility (TSF) and Stormwater Storage Pond (SPP).
	• Category 54: Sewage facility:
	  ○ Construction and time limited operations of a new wastewater treatment plant (WWTP 2).

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

Table 1: Prescribed premises categories

Prescribed premises category and description	**Assessed production or design capacity**	**Proposed changes to the production capacity (amendments only)**
Category 8: Mineral sands mining or processing	Processing Rates: 9,000,000 tonnes per annual period (Stage 1) 18,000,000 tonnes per annual period (Stage 2) Mining Rates: 12,500,000 tonnes per annual period (Stage 1) 25,000,000 tonnes per annual period (Stage 2)	No proposed changes.
Category 54: Sewage facility	WWTP 1 – 100 m^3/day	No proposed changes.
	Nil	WWTP 2 – 17.5 m^3/day
Category 89: Putrescible landfill site	1,100 tonnes per annual period	No proposed changes.

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 ☒ No ☐	Assessed under Part IV ☒
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes ☒ No ☐	Ministerial statement No: MS 1080 EPA Report No: 1606
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ☒ No ☐	Reference No: EPBC 2016/7648 issued on 27/9/18
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ☒ No ☐	Mining lease / tenement ☒ Expiry: • M04/459, expiry: 24/09/2039

		• L04/84, expiry: 22/04/2036 • L04/85, expiry: 22/04/2036 • L04/86, expiry: 22/04/2036
Has the applicant obtained all relevant planning approvals?	Yes ☐ No ☐ N/A ☒	Premises is on mining tenure.
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes ☐ No ☒	MS 1080 covers disturbance areas and clearing.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes ☐ No ☒	MS 1080 covers disturbance areas and clearing.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ☒ No ☐	GWL201977
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ☒ No ☐	Name: Canning-Kimberley Groundwater Area Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes ☐ No ☒ N/A ☐ Regional office: North West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes ☐ No ☒	N/A
Is the Premises subject to any other Acts or subsidiary regulations?	Yes ☒ No ☐	• *Environment Protection and Biodiversity Conservation Act 1999* • *Environmental Protection (Controlled Waste) Regulations 2004* • *Environmental Protection (Noise) Regulations 1997* • *Environmental Protection (Unauthorised Discharge) Regulations 2004* • *Health (Miscellaneous Provisions) Act 1911 (Shire approval 02/20)* • *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations* 1974 – (Department of Health approval No: 112.20) • *Mining Act 1978* • *Rights in Water and Irrigation*

		Act 1914 • *The Aboriginal Heritage Act 1972*
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ☐ No ☒	N/A
Is the Premises subject to any EPP requirements?	Yes ☐ No ☒	N/A
Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*?	Yes ☐ No ☒	Classification: N/A Date of classification: N/A