# **Amendment Report**

## **Application for Licence Amendment**

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

Licence Number L9024/2020/1

Licence Holder Tellus Holdings Ltd

**ACN** 138 119 829

File Number DER2020/000039

Premises Sandy Ridge Facility

Crown lease O289974 granted by the State of Western Australia to Tellus Holdings Ltd in respect of Lot 510 on Deposited Plan 413497, Whole Volume 3169 Folio 365.

102.5km north of Great Eastern Highway, via Access

Reserve 44102, BOORABBIN WA 6429.

As defined by the coordinates in Schedule 1 of the Revised

Licence

As defined by the Premises maps attached to the Revised

Licence

**Date of Report** 10 September 2020

Proposed Decision Revised licence granted

Tracey Hassell A/MANAGER WASTE INDUSTRIES

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

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## 1. Decision summary

Licence L9240/2020/1 is held by Tellus Holdings Ltd (Licence Holder) for the Sandy Ridge Facility (the Premises), an open-cut kaolin mine and proposed near surface geological repository, located approximately 75 kilometres (km) north-east of Koolyanobbing in the Shire of Coolgardie, within the Goldfields Region of Western Australia.

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 Licence L9240/2020/1 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 <a href="https://dwer.wa.gov.au/regulatory-documents">https://dwer.wa.gov.au/regulatory-documents</a>.

#### 2.2 Application summary

On 21 July 2020, the Licence Holder submitted an application to the department to amend Licence L9240/2020/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Increasing the above-ground storage of waste from 3,000 tonnes to 10,000 tonnes utilising infrastructure that was approved for construction under W6308/2019/1;
- Conduct non-radioactive waste inspection and verification in the Non-radioactive Waste Inspection and Unloading Warehouse;
- Conduct non-radioactive waste inspection and verification in the Low Level Radiation Waste Warehouse. Use of this facility for radioactive waste is not proposed until approvals are granted under the *Radiation Safety Act 1975*;
- Above-ground storage of waste in the Non-radioactive Waste Inspection and Unloading Warehouse, Low Level Radiation Waste Warehouse, Flammable Goods Store and East Yard Parts 1 and 2 in accordance with Dangerous Goods Licence DGS022452; and
- Above-ground storage of liquid waste, including PFAS contaminated waste in the PFAS contaminated waste storage area.

This amendment is limited only to changes to Category 61 and 61A activities from the Existing Licence.

Wastes proposed to be accepted as part of this amendment have been included in Appendix 3 of this Amendment Report.

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

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment		
61: Liquid waste facility	3,000 tonnes (combined) per annual period	10,000 tones (combined) per annual period	Combined total 10,000 tonnes to be stored at any one time, of which no more than 2,000 tonnes to be		
61A: Solid waste facility	аппиагреной	period	Category 61 Liquid waste.		

#### 2.2.1 Temporary Waste Storage Area Infrastructure

The following infrastructure is proposed to be utilised for the temporary storage of non-radioactive waste.

Table 2: Constructed infrastructure and equipment

Ref	Infrastructure or Equipment	Site Layout Plan reference				
Cate	gory 61 and 61A – Waste inspection and te	mporary above-ground waste storage				
1	Flammable Goods Store	ID 2 in Figure 1				
2	Waste Storage Yard - East yard Part 2 <sup>1</sup>	ID 11 in Figure 1				
3	Non-Radioactive Waste Inspection and Unloading Warehouse	ID 16 in Figure 1				
4	Low Level Radiation Waste Warehouse/ Liquid Waste Unloading Area <sup>2</sup>	ID 21 in Figure 1				
5	PFAS Contaminated Waste Storage Area	ID 34 in Figure 1				

Note 1: Part 1 of the East Yard is already licensed under L9240/2020/1 to store waste. A further approximately 50m length of East Yard is referred to in the Application as East Yard – Part 2.

Note 2: This area is not yet approved under the *Radiation Safety Act 1975* for use with radioactive waste. The Licence Holder is proposing to use this area for non-radioactive waste inspection and storage until the full operational licence and RS Act approvals are in place

#### 2.2.2 W6308/2019/1 – Environmental Compliance Reports

Following completion of aspects of construction works under W6308/2019/1, the Licence Holder submitted to the CEO the following Environmental Compliance Reports:

- PFAS contaminated waste storage area and non-radioactive waste inspection and unloading warehouse, received 30 June 2020;
- Low level radiation waste warehouse/liquid waste unloading area, received 7 July 2020; and
- The flammable goods store and the waste storage east yard extension, received 21 July 2020.

These reports, submitted in accordance with Condition 3 of the works approval confirmed that the following infrastructure has been constructed in accordance with the requirements of the works approval.

PFAS contaminated waste storage area;

- Non-radioactive waste inspection and unloading warehouse;
- Low level radiation waste warehouse/ liquid waste unloading area;
- Flammable goods store; and
- Waste storage east yard extension.

#### 2.3 Part IV of the EP Act

The Licence Holder has received approval under Part IV of the EP Act in June 2018, through Ministerial Statement 1078 to implement a dual open cut kaolin clay mine and a near-surface geological waste repository accepting Class IV and Class V waste, approximately 75 kilometres north east of Koolyanobbing.

The elements specifically authorised by MS 1078 which relate to this application are:

- Temporary waste storage on surface (up to 15,000 tonnes);
- Maximum temporary storage time (up to 12 months); and
- Access roads, pipeline corridors, stormwater sumps and a flood levee.

The assessment conducted by the Environmental Protection Agency (EPA) (Report 1611) concluded that the relevant EP Act principles and environmental objectives for terrestrial environment quality, flora and vegetation, human health, terrestrial fauna and inland waters environmental quality can be met (subject to conditions) and that the application is environmentally acceptable.

The EPA identified the following key environmental factors during the course of its assessment:

- 1. Terrestrial environment quality direct impacts to the quality of land and soils during the operation of the proposal and from the acceptance and storage of hazardous and intractable waste (including radioactive material).
- 2. Flora and vegetation direct impacts associated with the clearing of native vegetation.
- 3. Human health direct impacts from exposure to chemical/hazardous materials from waste handling, and leaks or spills from waste packages.
- 4. Terrestrial fauna direct impacts on fauna habitat from clearing, and contaminants or radiation exposure to fauna.
- 5. Inland waters environmental quality direct impacts from potential leaks or spills and generation of leachate from waste package storage.

As part of this amendment, DWER referred the application to EPA services seeking advice regarding the proposed amendment and consistency with MS1078. On 5 August 2020, EPA Services advised that the amendment application to increase the storage quantities remains consistent with the allowable limit of 15,000 tonnes for temporary waste storage above ground, as described in Ministerial Statement 1078. Noting that temporary storage of wastes are for up to 12 months, before permanent disposal/isolation within the waste cell is required.

## 2.4 Other relevant approvals

#### 2.4.1 Planning approvals

The Midwest/Wheatbelt Joint Development Assessment Panel accepted and approved DAP/17/01318 for the proposed Facility on 3 April 2019. The assessment panel accepted that the DAP Application reference DAP/17/01318 is appropriate for consideration as a "Waste Disposal Facility" land use and compatible with the objectives of the zoning table in accordance with Local Planning Scheme No 5 of the Shire of Coolgardie.

The assessment panel also approved the DAP Application reference DAP/17/01318 and accompanying plans in accordance with Clause 68 of the *Planning and Development (Local Planning Schemes) Regulations 2015* and the provisions of the Shire of Coolgardie Local Planning Scheme No.5 subject to conditions.

Due to the dual nature of the proposed Facility to undertake mining operations and the acceptance and disposal of waste simultaneously on the same land, tenure granted under both the *Mining Act 1978* (WA) and *Land Administration Act 1997* (WA) (LAA) was required for the construction and operation of the proposal.

The Licence Holder was granted land tenure under the LAA (Crown Lease) on 26 November 2019.

**Key Finding:** The Delegated Officer notes that the Crown Lease contains conditions relating to waste acceptance at the Leased Premises until a Financial Assurance Arrangement has been entered into. The Licence Holder is responsible for ensuring all necessary approvals are in place for the acceptance and storage of more than 3,000 tonnes of waste at the premises.

#### 2.4.2 Department of Mines, Industry Regulation and Safety

The Department of Mines, Industry Regulation and Safety granted approval for a Mining Proposal and Mine Closure Plan associated with the Facility on 04 June 2019 (Mining Proposal Registration ID: 75521). This proposal relates to mining activities associated with the project, outside those specifically related to this application.

Further, the Licence Holder has received a Dangerous Goods Site Licence (DGS022452) for the Facility on 27/09/2018 under the *Dangerous Goods Safety Act 2004*, as regulated by the Department of Mines, Industry Regulation and Safety.

The Department of Mines, Industry Regulation and Safety confirmed that this licence was amended to increase the flammable liquids to 158 kL and that in granting the amendment, specific criteria were required to be met in relation to planning the construction of appropriate storage facilities for dangerous goods.

It is the responsibility of the Licence Holder to ensure that storage, separation distances and packaging criteria for hazardous waste or dangerous goods on the premises meets the requirements of *Dangerous Goods Safety Act 2004*, or other relevant legislation.

#### 2.4.3 Radiation Safety Act 1975

The Licence Holder has been granted a registration under the *Radiation Safety Act 1975* (RS Act) for the temporary surface storage of low level radioactive wastes. This registration limits surface storage in accordance with the Licence Holder's Radiation Management Plan.

The Licence Holder is currently seeking further approval under the RS Act for the long-term disposal of radiation wastes.

**Key Finding:** The Delegated Officer notes that no radioactive wastes are proposed to be accepted as part of this amendment.

#### 2.4.4 Federal Legislation

#### **Environment Protection and Biodiversity Conservation Act 1999 (Cth)**

On 23 September 2015, the Department of Environment determined under section 75 of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) the construction of the Sandy Ridge Facility to be a controlled action to be assessed under the Bilateral Agreement with Western Australia (Agreement between the Commonwealth of Australia and

Western Australia under section 45 of the EPBC Act relating to Environmental Impact). The relevant matters of national environmental significance considered for the Sandy Ridge Facility included s21 and 22A – Nuclear action.

In January 2019, the Department of Environment and Energy granted approval for the Facility (EPBC Reference No.: 2015/7478) under section 133 of the EPBC Act.

Key conditions within EPBC/2015/7478, (not all of which relate to this application) include:

- Submission and implementation of a deep groundwater monitoring and management plan;
- Implementation of the PFAS National Environmental Management Plan (NEMP);
- Surface and floodwater management; and
- Waste placement within cells not to include disposal by the borehole method (also called BOSS method)

In May 2020, the National Chemicals Working Group of the Heads of EPAs Australia and New Zealand released the PFAS NEMP - Version 2.0 (PFAS NEMP 2.0). The PFAS NEMP 2.0 provides new and revised guidance on four of the areas that were identified as urgent priorities in the first version of the NEMP, including environmental guideline values, soil reuse, wastewater management and on-site containment. The PFAS NEMP 2.0 also includes updated guidance for the temporary and longer term onsite storage and containment of PFAS containing materials, including the designation and specification of controls for the temporary and short term storage of PFAS containing wastes.

Temporary storage is considered to include storage from 48 hours to 6 months, short term storage is considered to include storage from 6 months to 2 years, and both are relevant for the proposed surface storage timeframes as proposed by the Licence Holder (of up to 12 months above ground storage). Guidance within the PFAS NEMP 2.0 specifies the storage infrastructure for PFAS containing liquid wastes to be within self-bunded containment vessels covered, with lockable access, on an impervious, bunded hardstand, with effective stormwater controls.

#### **Key Finding:** The Delegated Officer notes that:

- Approvals for the Facility under the Environmental Protection and Biodiversity Conservation Act 1999 require the Licence Holder to implement the PFAS NEMP (and subsequent amendments)
- The PFAS NEMP 2.0 includes additional requirements for the temporary and short term storage of PFAS wastes.
- It is the responsibility of the Licence Holder to ensure the acceptance and storage of PFAS wastes is conducted in accordance with the relevant Commonwealth approval for the Facility.

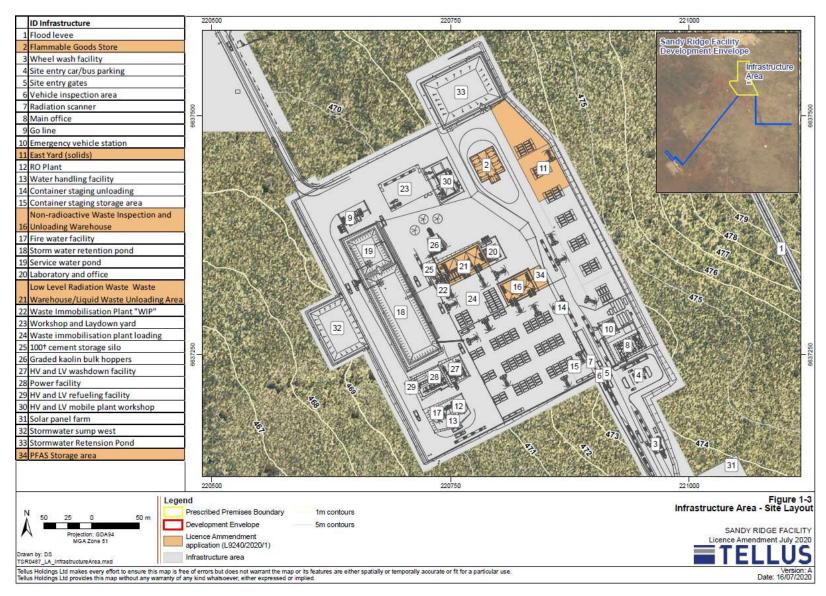


Figure 1: Site Plan

#### 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 *Guidance Statement: Risk Assessments* (DER 2017).

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 operation which have been considered in this Amendment Report are detailed in Table 3 below. Table 3 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

**Table 3: Licence Holder controls** 

Sources	Emission	Potential pathways	Proposed controls
Acceptance and handling of solid and liquid waste onto the premises for temporary storage prior to permanent	Dust	Air/windborne pathway	Location of the premises a significant distance from receptors.  Vehicle speed limits are in place.  Sealed surfaces in high traffic areas.  Use of water carts for dust suppression.
isolation/disposal	Noise	Air/windborne pathway	Location of the premises a significant distance from receptors.  Plant and equipment to meet Australian Standards.
	Odour Air/windborne pathway		Location of the premises a significant distance from receptors.  Solid and liquid wastes stored within sealed containers or drums.

Sources	Emission	Potential pathways	Proposed controls
	Waste and leachate	Direct discharge to	Maximum of 10,000 tonnes of waste on site, inclusive of up to 2,000 tonnes of liquid waste.
		land	Solid and liquid wastes transported to the premises within primary packaging.
			Liquid waste storage container bund capacity 110% of largest IBC/drum.
			Waste inspection and auditing (at receival) to assess for damage/leaks.
			Waste storage areas constructed with engineered paving or concrete hardstands (in accordance with Works Approvals W6308/2019/1 and W6305/2019/1).
			No mixing of incompatible wastes.
			Detailed Waste Acceptance Procedure, Waste Acceptance Criteria and Hazardous Material Response Safe Work Procedure developed.
			Waste separation and segregation as per Dangerous Goods requirements.
			Storage not exceeding 12 months.
			Emergency and spill response equipment present onsite.
			Daily inspections of waste storage areas.

Sources	ces Emission Poter pathy		Proposed controls
	Potentially contaminated	Direct discharge to	Stormwater diversion drain installed up gradient of storage area.
	stormwater	land / overland runoff	The non-radioactive waste inspection and unloading warehouse is roofed and walled to prevent rainfall ingress, constructed with concrete floor and perimeter concrete bunding and includes drainage to traversable blind sumps constructed of concrete.
			The east yard waste storage area drains to the earthen lined stormwater sump on the north east of the infrastructure area, designed to contain a 1:100 year 72 hour rainfall event (from the east yards catchment area).
			The flammable goods store hardstand is constructed of interlocking concrete paving and is contained within a 300mm concrete bund with blind sumps constructed of concrete, designed to contain a 1:100 year 72 hour rainfall event.
			The low-level radiation waste warehouse/liquid waste unloading area warehouse is roofed and walled to prevent rainfall ingress, constructed with concrete floor and perimeter concrete bunding. The concrete slab drains to concrete floor sumps with bunding and drainage sufficient to retain at least 110% of the largest ISO storage container.
	Windblown waste	Air/windborne pathway	Wastes accepted onsite are not anticipated to generate windblown waste.
			The majority of wastes accepted onsite are contained within sealed containers.
	Fire/smoke emissions	Air/windborne pathway in	Waste segregation and storage in accordance with Dangerous Goods storage requirements.
		the event of fire or explosion	Waste acceptance procedures (as summarised in the Application and supporting documents).
		-	Emergency and spill response equipment.

#### 3.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), 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.

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 (*Guidance Statement: Environmental Siting* (DER 2016)).

Table 4: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity		
Mount Walton Intractable Waste Disposal Facility (IWDF)	Approximately 5 km east of the Premises boundary		
Ex-Juardi pastoral station homestead	Approximately 50 km south of the Premises boundary		
Mine village camp (Carina Iron Ore Mine Accommodation Village)	Approximately 52 km south of the Premises boundary		
Environmental receptors	Distance from prescribed activity		
Non-Perennial Surface Water Bodies	DWER GIS data indicate two minor non-perennial waterbodies associated with Lake Raeside, one approximately 50 m south of the premises boundary and one approximately 450 m west of the premises boundary (based on available GIS dataset – Hydrography WA 250K – Surface Waterbodies). These waterbodies are located approximately 2.5 km and 1.4 km respectively from the infrastructure and waste storage areas.		
Parks and Wildlife Managed Lands and Waters	The Mount Manning Range Nature Reserve is locate approximately 9.8 km north-west of the Premises.		
	The Mount Manning-Helena and Aurora Ranges Conservation Park is located approximately 19.8 km west of the Premises.		
	The Boorabbin National Park is located approximately 100 km south of the Premises.		
Threatened Ecological Communities and Priority Ecological Communities	The Finnerty Range/Mt Dimer/Yendilberin Hills Vegetation Complexes (Banded Ironstone Formation) are located approximately 12.5 km to the south west of the Premises.		
Threatened/Priority Flora <sup>1</sup>	6 threatened/priority flora are located within a 10 km radius of the Premises, two priority flora have been recorded within the Premises boundary.		
Threatened/Priority Flora – as identified from Public Environment	Calytrix creswellii – listed as Priority 3 by the DBCA – recorded within the mine infrastructure area.		
Review <sup>1</sup>	Banksia arborea – listed as Priority 4 by the DBCA – recorded within the groundwater abstraction area.		
Threatened/Priority Fauna <sup>1</sup>	Leipoa ocellate is mapped within the premises boundary		
Groundwater	No developed groundwater aquifer was found within the Premises during hydrogeological investigations.		
	Groundwater at the site is saline and has a total dissolved solids content of $\sim\!6,000\text{-}6,500$ mg/L		
	There are no registered groundwater users (or bores) in the local area, with the exception of bores constructed for environmental purposes, at the Intractable Waste Disposal Facility at Mount Walton East 5.5 km east of the development		

envelop. The closest water supply bores are located at the Mount Dimer gold mine, 23 km from the Facility.
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<sup>&</sup>lt;sup>1</sup>Potential impacts to Threatened/Priority fauna and flora were considered and assessed under Ministerial Statement 1078. MS 1078 includes conditions relevant for potential impacts to flora and fauna associated with the Facility.

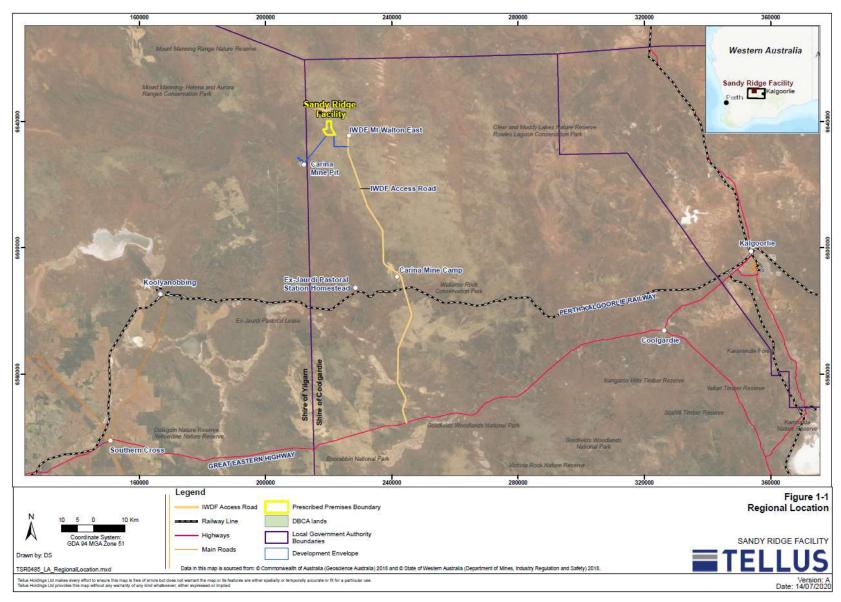


Figure 2: Distance to sensitive receptors

## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) 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 in-complete 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 5.

The Revised Licence L9240/2020/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. temporary waste storage activities. The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 5. Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event			Risk rating <sup>1</sup>	Licence				
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Acceptance and handling of Class IV and V wastes	Dust	Air/windborne pathway causing impacts to health and amenity	Temporary workers of Mount Walton IWDF 5 km away	Refer to Section 5.1	C = Slight L = Rare Low Risk	Υ	N/A	The movement of plant and equipment during operations is not expected to generate significant dust emissions. The nearest sensitive receptor is a significant distance away and the waste unloading areas are paved. The general provisions of the EP Act are considered sufficient in regulating dust emissions.
onto the premises for temporary storage prior to permanent isolation/disposal	Noise/ vibration	Air/windborne pathway causing impacts to health and amenity	Temporary workers of Mount Walton IWDF 5 km away	Refer to Section 5.1	C = Slight L = Rare Low Risk	Υ	N/A	The movement of plant and equipment during operations is not expected to generate significant noise or vibration emissions. The nearest sensitive receptor is a significant distance away. The general provisions of the EP Act and the Environmental Protection (Noise) Regulations 1997 are considered sufficient in regulating noise emissions.

Risk Event	Risk Event							
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
	Odour	Air/windborne pathway causing impacts to health and amenity	Temporary workers of Mount Walton IWDF 5 km away	Refer to Section 5.1	C = Slight L = Rare Low Risk	Y	N/A	Wastes accepted onto the Premises are not expected to generate significant odour emissions. The nearest sensitive receptor is a significant distance away and the majority of wastes accepted onto the premises are contained within sealed containers. The general provisions of the EP Act are considered sufficient in regulating odour emissions.
	Breach of containment of waste containers	Direct discharge to land resulting causing soil contamination resulting in impacts to vegetation growth and fauna health	Surrounding ecosystems, native vegetation communities and fauna	Refer to Section 5.1	C = Minor L = Unlikely Medium Risk	Y	Infrastructure requirements condition 1 Waste acceptance and storage conditions 2 – 7 Waste management conditions 11 - 16	The Licence Holder's controls include the acceptance and storage of hazardous wastes within secondary containment and bunding where necessary will likely reduce the likelihood of breaches of containment and spills of hazardous wastes discharging to the environment. In the event of a breach, the engineered pavement and concrete as well as the underlying soil and geological profile will provide a sufficient barrier to limit vertical seepage for solid wastes until waste clean-up measures are implemented.  Conditions included in the Licence generally replicate controls proposed by the Licence Holder.
Temporary surface storage of wastes within dedicated storage yards (east yard/low level radiation waste warehouse and non-radioactive waste inspection &	Wastewater (contaminated stormwater) discharging from waste storage yards	Direct discharge from waste storage yards to land causing soil contamination resulting in impacts to vegetation growth and fauna health	Surrounding ecosystems, native vegetation communities and fauna	Refer to Section 5.1	C = Minor L = Unlikely Medium Risk	Y	Infrastructure requirements condition 1 Stormwater management conditions 17 - 19	The Licence Holder has proposed infrastructure and management controls that include the diversion of uncontaminated stormwater and the containment of potentially contaminated stormwater.  Proposed waste acceptance, storage and spill response practices are consisted appropriate to minimise the potential for hazardous wastes and materials to contaminate stormwater.
unloading warehouse) pending processing or		Overland runoff resulting in contamination of	Non-perennial surface water bodies within	Refer to Section 5.1	C = Minor L = Unlikely	Y	Infrastructure requirements condition 1	Conditions included in the Licence generally replicate controls proposed by the Licence Holder.

Risk Event					Risk rating <sup>1</sup>	Licence	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	uence controls		
disposal		waters or deterioration of local/regional surface water ecosystems	and adjacent to the Premises		Medium Risk		Stormwater management conditions 17 - 19	
	Odour	Air/windborne pathway causing impacts to health and amenity	Temporary workers of Mount Walton IWDF 5km away	Refer to Section 5.1	C = Slight L = Unlikely Low Risk	Y	N/A	Wastes accepted onto the Premises are not expected to generate significant odour emissions. The nearest sensitive receptor is a significant distance away and the majority of wastes accepted onto the premises are contained within sealed containers. The general provisions of the EP Act are considered sufficient in regulating odour emissions.
	Breach of containment of solid waste containers	Direct discharge to land resulting in soil contamination causing impacts to vegetation growth and fauna health	Surrounding ecosystems, native vegetation communities and fauna	Refer to Section 5.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Infrastructure requirements condition 1 Waste acceptance and storage conditions 2 – 7 Waste management conditions 11 - 16	The Licence Holder's controls include the acceptance and storage of hazardous wastes within secondary containment and bunding where necessary will likely reduce the likelihood of breaches of containment and spills of hazardous wastes discharging to the environment. In the event of a breach, the engineered pavement and concrete as well as the underlying soil and geological profile will provide a sufficient barrier to limit vertical seepage for solid wastes until waste clean-up measures are implemented.  Conditions included in the Licence generally replicate controls proposed by the Licence Holder.
	Breach of containment of liquid waste containers	Direct discharge to land resulting in soil contamination causing impacts to vegetation growth and fauna health	Surrounding ecosystems, native vegetation communities and fauna	Refer to Section 5.1	C = Minor L = Unlikely Medium Risk	Y	Infrastructure requirements condition 1 Waste acceptance and storage conditions 2 – 7 Waste management	The Applicant's proposed waste acceptance and spill response controls are considered sufficient at mitigating the risk of soil and ground contamination associated with the storage of liquid wastes on the Premises.  Condition 8 of the Existing Licence required construction of an impervious bunded storage area with a bund capacity greater

Risk Event					Risk rating <sup>1</sup>	Licence		
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	consequence controls sufficient?		Justification for additional regulatory controls
							conditions 11 - 16	than 110% of the largest package size stored within the storage area. This requirement was considered necessary to ensure PFAS contaminated liquid wastes are stored in a manner that reduces the risk of impacts to receptors and gives regard to the additional storage advice within the PFAS NEMP 2.0. This bunding has now been constructed and the requirements of Conditions 8, 9 and 10 have been met and will be removed from the Licence.
	Windblown waste	Air/windborne pathway causing impacts to wildlife and causing detriment to the conservation values and amenity impacts	Surrounding ecosystems and fauna	Refer to Section 5.1	C = Slight L = Unlikely Low Risk	Y	N/A – The general provisions of the EP Act apply.	N/A – Waste accepted onto the premises are not expected to generate windblown waste emissions. The Licence Holder has advised that the majority of wastes accepted onto the premises are contained within sealed containers.
	Fire/smoke emissions including particulates and air emissions containing toxic elements released in the event of a fire or explosion	Air/windborne pathway causing impacts to health and amenity	Temporary workers of Mount Walton IWDF 5km away	Refer to Section 5.1	C = Minor L = Rare Low Risk	Y	Waste acceptance and storage conditions 2 – 7	Proposed waste acceptance, storage and spill response practices are considered to minimise the potential for hazardous wastes and materials to combust.  The Licence Holder holds Dangerous Goods Licence #DGS022452 for the storage of hazardous corrosive, toxic and flammable materials, as regulated by the Department of Mines, Industry Regulation and Safety.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Guidance Statement: Risk Assessments (DER 2017).

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 6 provides a summary of the consultation undertaken by the department.

**Table 6: Consultation** 

Consultation method	Comments received	Department response
Application advertised on the department's website (31/07/2020)	No comments received	N/A
Application advertised in the West Australian (03/08/2020)	No comments received	N/A
Shire of Coolgardie advised of proposal (31/07/2020)	No comments received	N/A
Shire of Yilgarn advised of the proposal (31/07/2020)	No comments received	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) – Environmental Compliance Branch advised of proposal (31/07/2020)	DMIRS advised on 31 July 2020 that the Environmental Compliance Branch does not regulate the waste aspects of the Sandy Ridge Project that this licence amendment relates to and as such had no comment on the application.	N/A
DMIRS - Dangerous Goods and Critical Risk Directorate (31/07/2020)	DMIRS – Dangerous Goods Directorate advised on 21 August 2020 that:  Tellus Holdings Ltd at Sandy Ridge currently has a valid Dangerous Goods Site Licence (DGS022452). This licence was amended for the increased storage of flammable liquids to 158 kL.  To be granted a licence amendment, specific criteria are required to be met in relation to planning the construction of appropriate storage facilities for dangerous goods.	Noted.

Consultation method	Comments received	Department response
Department of Planning, Lands and Heritage (DPLH) advised of proposal (31/07/2020)	DPLH advised on 25 August 2020 that the DPLH has no objection to the proposed application provided the Financial Assurances Deed and associated suite of documents required for the Sandy Ridge Facility is executed prior to acceptance of this additional waste, such that the risk to the State will be addressed.	Noted. Approval under Part V of the EP Act does not negate the need for the Licence Holder to have all relevant approvals in place prior to accepting additional waste at the Premises.
Environmental Protection Authority (EPA Services) advised of the proposal (30/07/2020)	EPA services advised on 5 August 2020 that the application to increase the storage quantities remains consistent with the allowable limit of 15,000 tonnes for temporary waste storage above ground, as described in Ministerial Statement 1078. Noting that the temporary storage of wastes is for up to 12 months, before permanent storage is required.	Noted. As above, approval under Part V of the EP Act does not negate the need for the Licence Holder to have all relevant approvals in place prior to accepting additional waste at the premises.
	EPA services noted that the storage of waste above 3,000 tonnes may not be in accordance with the Crown Lease and associated Financial Assurance deed and that is would be important to confirm this with DPLH prior to any further Part V approvals.	
Licence Holder was provided with draft amendment on (28/08/2020)	See Appendix 1	See 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 7 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 7: Summary of licence amendments** 

Condition no.	Proposed amendments
1, Table 1	Table 1 amended to include the following infrastructure areas and associated controls as assessed under this Application:
	PFAS Contaminated Waste Storage Area
	Non-Radioactive Waste Inspection and Unloading Warehouse
	Low Level Radiation Warehouse
	Flammable Goods Store
	East Yard Part 1 and 2
	The temporary waste storage area has also been renamed to 'East Yard (solids) Area consistent with the revised infrastructure area map.
3, Table 2	Table 2 amended to include additional waste types as per Appendix 3 of this Decision Report.
7, Table 3	Table 3 amended to include additional storage requirements relevant to different waste types and waste storage areas.
8, 9 and 10 (former licence)	Conditions removed as the requirements of these conditions have been fulfilled.  Operational requirements are captured within other conditions.
8	Amended to allow waste containers to be opened for waste verification inspection or testing purposes within waste inspection warehouses in accordance with waste acceptance procedures.
15	Temporary Waste Storage Area renamed to 'East Yard (solids) Area consistent with revised infrastructure area map.
16	Part (c) added to ensure the design capacity of the pond is maintained.
Schedule 1: Maps	Figure 2 revised with updated map from the Licence Holder.
	Figure 3 revised to reflect revised infrastructure area map provided with the Application.
	Figure 5 removed as the PFAS storage area is now reflected in the revised infrastructure map (Figure 3)

#### References

- 1. Department of Environment Regulation (DER) 2016, *Guidance Statement:* Environmental Siting, Perth, Western Australia.
- 2. DER 2017, Guidance Statement: Risk Assessments, Perth, Western Australia.
- 3. DER 2015, Guidance Statement: Setting Conditions, Perth, Western Australia.
- 4. Tellus Holdings Ltd 2020, Sandy Ridge Facility Licence Amendment Application L9240/2020/1 Attachment 3B Supporting Document, Perth, Western Australia (DWER records A1917382).
- 5. Turner & Townsend 2020, Compliance Report 4, Non-Radioactive Waste Inspection and Unloading Warehouse & PFAS Contaminated Waste Storage Area W6305/2019/1, Perth, Western Australia (DWER records A1915264).
- 6. Turner & Townsend 2020, Compliance Report 5, Low Level Radiation Waste Warehouse/ Liquid Waste Unloading Area W6308/2019/1, Perth, Western Australia (DWER records A1914829).
- 7. Turner & Townsend 2020, Compliance Report 6, The Flammable Goods Store and the Waste Storage East Yard Extension W6308/2019/1, Perth, Western Australia (DWER records A1915552).

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

Condition	Summary of Licence Holder's comment	Department's response
Condition 1, Table 1, row 1, column 2, item (a)	Consistent with Column 1, consider replacing "Temporary Waste Storage Area" with "East Yard". Consider replacing the reference throughout the Licence	Noted and revised.
Condition 1, Table 1, row 1, column 2, item (b)	Tellus advises that the fence around East Yard is retained up to the time construction is complete and the site is handed over to Tellus. At this time, the site security fencing will be complete.	Noted.
Condition 1, Table 1, row 1, column 2, item (c)	As per the previous comment, the earth bund between the East Yard and the rest of the Infrastructure Area will be removed upon completion of construction.	Noted.
Condition 1, Table 1, row 5, column 2, item (a)	Remove reference to self-bunded vessels, as this exceeds the requirement of the now-deleted condition 8 which required only that liquid wastes be stored in the impervious bunded area.  In addition, self-bunded vessels are not appropriate for solid waste. If there is capacity in the PFAS Storage Area, compatible solid waste may be stored in it.	Waste storage requirements have been removed from this table and are provided in Table 3.  A note is added to bring attention to any additional storage infrastructure requirements detailed in the PFAS NEMP.
Condition 1, Table 1, Note 4	Recommend amending "radiative" to radioactive, to be consistent with the use in the rest of instrument.	Noted and revised.
Condition 4	In regard to the term "Container", Tellus notes that the contaminated bulky waste items (see comments on Table 3) that do not fit in a box-type shipping container could instead be stored on stillages. This applies to all bulky waste items, not just those requiring quarantine.	Noted, this condition relates only to waste that does not meet the waste acceptance criteria. The condition does not prevent waste being stored on stillages, so long as it is located in a Quarantined Storage Area.

Condition	Summary of Licence Holder's comment	Department's response
Condition 5	In the interest of continual improvement of Tellus' procedures, consider adding provisions for these procedures to be updated as approved by the CEO but outside of the licence amendment process.	Noted, changes to controls in the procedure may result in changes to the assessed risk of operations, as such changes to this plan that relate to waste acceptance procedures would require separate assessment and an amendment to the Licence.
Condition 7, Table 3, row 1 Contaminated Solid Wastes, column 1	Tellus request that "Power Poles" be amended to "bulky items" and revise Note 1 to Table 3. This will cater to other bulky contaminated waste types (such as pipes, structures, mechanical equipment, large machine parts)	The Delegated Officer notes that Tellus' request regarding the acceptance and definition of bulky items has been proposed as part of another application for a licence amendment current being assessed (submitted to DWER 27/08/2020).
Condition 7, Table 3, row 1 Contaminated Solid Wastes, column 2	An alternative to amending Note 1 (see previous) for addressing the issue of bulky waste that cannot be within primary packaging and/or containerised, is to consider adding after (a) ", to the extent practical and in accordance with DG licence".	This request regarding bulky items will therefore be assessed as part of this future amendment application. No changes to the current condition wording have been made.
Condition 7, Table 3, row 1 Contaminated Solid Wastes, column 3	The PFAS Storage Area is suitable to store contaminated waste, whether solid or liquid. Add PFAS Storage Area to the list of storage locations for contaminated solid waste.	Noted and amended.
Condition 7, Table 3, row 2 Power Poles, column 1	As per comment on Condition 7 Table 3, row 1, column 1	Refer to comment on 'Condition 7, Table 3, row 1 Contaminated Solid Wastes, column 1' above.
Condition 7, Table 3, row 2 Power Poles, column 2, item (b)	Change "sealed storage containers" to "packaging".  Contaminated bulky items that cannot fit inside box-type shipping containers (refer to previous comments) are proposed to be securely wrapped, blinded, or otherwise packaged.	Noted and amended.
	Consider adding at end "and prevent the discharge of contaminants"	Noted and amended.
Condition 7, Table 3, row 2 Power Poles, column 3	Tellus request that bulky items (including power poles) be authorised to be stored in any of the waste storage areas. The pollution controls in the newly added infrastructure considered in this draft licence amendment (Flammable Goods Store, Waste Inspection Warehouses) are equal to or better than the East Yard.	Refer to comment on 'Condition 7, Table 3, row 1 Contaminated Solid Wastes, column 1' above.

Condition	Summary of Licence Holder's comment	Department's response
Condition 7, Table 3, row 3	Non-flammable waste	Noted and amended.
Liquid Waste, column 3	Tellus suggest that the concrete bunded floors of Waste Inspection Warehouses and the Flammable Goods Store also be authorised to store liquid waste (in addition to the PFAS Storage Area). The pollution controls in the newly added infrastructure considered in this draft licence amendment provide equal or better spill/leak containment than the PFAS Storage Area.	Additional rows have been added to Table 3 to differentiate PFAS waste (solid and liquid) from other non-PFAS waste types to ensure that in making changes, that conditions relating to storage of PFAS wastes are consistent with the PFAS NEMP.
	Tellus request removing "within covered and bunded primary packaging" and replace "within primary enclosed packaging in an impervious and bunded storage area"	
Condition 7, Table 3, row 3	Flammable waste	Noted, this is already a requirement of the Dangerous Goods
Liquid Waste, column 3	Tellus suggest that flammable waste store in the Flammable Goods Store be stored in primary packaging within self-bunded container in accordance with the DG licence.	licence and as such does not require duplication in the Part V Licence.
Condition 7, Table 3, Note 1	As per previous comments, Tellus request that "Power Poles" be amended to "bulky items".	Refer to comment on 'Condition 7, Table 3, row 1 Contaminated Solid Wastes, column 1' above.
	Further, Tellus requests the definition be amended to "waste items that are unable to be contained within enclosed shipping containers". See also comment in Table 3, row 2, and condition 4.	
	Tellus raised this issue in the second licence amendment application (submitted 27/8/2020) but would appreciate it being addressed in the current amendment if possible.	
Figure 2: Map of prescribed	Tellus advises that the site layout is out of date.	Noted and revised with updated figure.
premises	A revised Figure 2 has been provided.	
Figure 3: Infrastructure Area	Tellus noticed a spelling error in Item 33 in the legend.	Noted and revised with updated figure.
	A revised Figure 3 has been provided.	

Condition	Summary of Licence Holder's comment	Department's response
Draft Decision Report		
Table 3 Licence Holder controls, row 4 Waste and leachate, Column 4 proposed controls	Secondary shipping containers  Waste transport will be conducted by a third party. Tellus understands that transport will be conducted in accordance with relevant transport regulation, however cannot commit transporters to the requirement of secondary containers. Once accepted onsite, waste will be stored in accordance with licence conditions.  Consider rewording the proposed control.	DWER note that the content of this table was informed by the supporting information provided in the Application. The controls have been revised to align with these comments.  It is recommended that updated supporting information be provided with future amendment applications.  It is noted that Tellus' engineering and administrative controls as detailed in the application include:
	Mixing of waste in secondary storage containers  It is not feasible to limit containers to a single waste type, nor is it warranted. Compatible waste types may be transported and/or stored together.	<ul> <li>Inspection of secondary storage containers (Sea containers) prior to acceptance on site and Inspection of waste packages on arrival at the facility;</li> <li>Storage segregation and separation distances (inferred to be both primary and secondary storage)</li> </ul>
Table 3 Licence Holder controls, last row Fire/smoke emissions, Column 4 proposed controls	Suggest removal of "Flammable, chemically unstable or corrosive (to the storage container) waste not accepted onsite". This is in direct contradiction of the various NEPM waste streams that Table 2 in the amended licence is permitting us to accept. Sandy Ridge propose to accept waste in accordance with our WAC, consistent with condition 5.  However, flammable, chemically unstable or corrosive waste will not be placed in the cell.	in accordance with the Dangerous Goods Licence, and to facilitate no mixing of incompatible chemicals during spills, leaks, or fires; and  • Storage containers and secondary containers will be impermeable to the substance being stored and will not react with the substance being stored.  DWER consider that operations consistent with these proposed controls do not change the assumptions relating to the Applicant's controls included within the risk assessment
Table 4 sensitive receptors, row 7	Tellus advises that two Priority flora have been recorded in the Premises.	Noted and revised.

# **Appendix 2: Application validation summary**

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)					
Application type					
Annual description of		Current licence number:	L9240/2020/1		
Amendment to licence		Relevant works approval number:	W6308/2019/1	N/A	
Date application received		21 July 2020			
Applicant and Premises details					
Applicant name/s (full legal name/s)		Tellus Holdings Ltd			
Premises name		Sandy Ridge Facilit	у		
Premises location		O289974 granted by the State of Western Australia to Tellus Holdings Ltd in respect of Lot 510 on Deposited Plan 413497, Whole Volume 3169 Folio 365.  102.5 km north of Great Eastern Highway, along Access Reserve			
Local Government Authority		44201, Boorabbin V Shire of Coolgardie	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Application documents		<u> </u>			
HPCM file reference number:		DWERDT310219			
Key application documents (additional to application form):		Licence Amendment Application L9240/2020/1 Supporting Document			
Scope of application/assessment					
		waste from 3,000 to approved for const seeks approval for Class V wastes (as  Conduct non-range Non-radioactive as per Table 2 of	rease the allowable annes to 10,000 tonnes ruction under W6308, the following activities defined in the LWCWI adioactive waste inspection and W6308/2019/1.	in infras /2019/1. relating D's): ection ar id Unloa	tructure that was The application to Class IV and nd verification in ding Warehouse
Summary of proposed activities or changes to existing operations.		Conduct non-radioactive waste inspection and verification in the infrastructure referred to in Table 2 of W6308/2019/1 as the Low Level Radiation Waste Warehouse. Use of this facility for radioactive waste is not proposed until approvals are granted under the Radiation Safety Act 1975.			
		Inspection and Waste Wareho Parts 1 and 2 i	storage of waste in the Unloading Warehous use, Flammable Goo n accordance with Da per Table 2 of W6308	se, Low ds Store angerous	Level Radiation and East Yard Goods Licence
		contaminated waste	orage of liquid wa e in the PFAS contamin 40/2020/1, as per Tab	nated wa	iste storage area

## 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 or design capacity
Category 61: Liquid waste facility	3,000 tonnes (combined) per annual period	Combined total 10,000 tonnes to be stored at any one time, of
Category 61A: Solid waste facility	annual periou	which no more than 2,000 tonnes to be Category 61 Liquid waste.

#### Legislative context and other approvals

<u> </u>			-
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 □	Referral decision No:  Managed under Part V □  Assessed under Part IV ⊠
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes ⊠	No □	Ministerial statement No: 1078 EPA Report No: 1611
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ⊠	No □	Reference No: EPBC2015/7478
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ⊠	No □	Certificate of title □  General lease □ Expiry:  Mining lease / tenement □ Expiry:  Other evidence (Crown Lease) □  Expiry: 27/11/2118 (99 years)  Contains conditions relevant to waste acceptance
Has the applicant obtained all relevant planning approvals?	Yes ⊠	No □ N/A □	Approval: DAP/17/01318  Expiry date: Approval requires works to be substantially commenced within 5 years of approval (i.e. 2 April 2024)
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes □	No ⊠	CPS No: N/A Clearing managed under MS 1078
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes □	No ⊠	Application reference No: N/A Licence/permit No: N/A Clearing managed under MS1078
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ⊠	No □	Application reference No: N/A Licence/permit No: GWL202536(1)

Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes □ No ⊠	Name: N/A  Type: Goldfields Groundwater Area  Has Regulatory Services (Water) been consulted?  Yes □ No □ N/A ☒  Regional office: Goldfields
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes □ No ⊠	Name: N/A  Priority: N/A  Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)?  Yes □ No □ N/A ☒
Is the Premises subject to any other Acts or subsidiary regulations (e.g. Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx)	Yes ⊠ No □	Mining Act 1978 – Mining Proposal/ Mine Closure Plan Registration ID 85106  Dangerous Goods Safety Act 2004 - Licence DGS022452.  Radiation Safety Act 1975 – RS 210/2018 30289
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

# **Appendix 3: Proposed waste acceptance**

NEPM Code	Waste Description	Temporary Storage (L9240/2020/1)		Operational (this application)	
		Solid Waste	Liquid Waste	Solid Waste	Liquid Waste
A100	Waste resulting from surface treatment of metals and plastics	1	×	1	1
A110	Waste from heat treatment and tempering operations containing cyanides	Х	X	1	1
A130	Cyanides (inorganic)	×	×	1	1
B100	Acidic solutions or acids in solid form	×	X	1	1
C100	Basic solutions or bases in solid form	×	×	1	1
D100	Metal carbonyls	Х	X	1	1
D110	Inorganic fluorine compounds excluding calcium fluoride (SPL)	X	×	1	1
D120	Mercury; mercury compounds	1	X	V	1
D130	Arsenic; arsenic compounds	1	×	1	1
D140	Chromium compounds (hexavalent and trivalent)	1	×	1	1
D141	Tannery wastes containing chromium	1	×	1	1
D150	Cadmium; cadmium compounds	1	×	1	1
D151	Used nickel cadmium batteries	X	X	1	1
D160	Beryllium; beryllium compounds	1	X	1	1
D170	Antimony; antimony compounds	1	×	1	1
D180	Thallium; thallium compounds	1	×	1	1
D190	Copper compounds	1	×	1	1
D200	Cobalt compounds	1	X	1	1
D210	Nickel compounds	1	X	1	1
D211	Used nickel metal hydride batteries	×	×	1	1
D220	Lead; lead compounds	1	X	1	1
D221	Used lead acid batteries	×	×	1	1
D230	Zinc compounds	1	×	1	1
D240	Selenium; selenium compounds	1	×	1	1
D250	Tellurium; tellurium compounds	1	X	1	1
D270	Vanadium compounds	1	×	1	1
D290	Barium compounds (excluding barium sulphate)	1	×	1	1
D300	Non-toxic salts	4	×	1	1
D310	Boron compounds	1	X	1	1
D330	Inorganic sulphides	1	X	1	1

NEPM Code	Waste Description	Temporary Storage (L9240/2020/1)		Operational (this application)	
		Solid Waste	Liquid Waste	Solid Waste	Liquid Waste
D340	Perchlorates	×	×	1	1
D350	Chlorates	Х	×	1	1
D360	Phosphorus compounds excluding mineral phosphates	×	X	1	1
E100	Waste containing peroxides other than hydrogen peroxide	X	X	1	1
E120	Waste of an explosive nature not subject to other legislation	×	X	×	X
E130	Highly reactive chemicals not otherwise specified	X	×	1	1
F100	Waste from the production, formulation and use of inks, dyes, pigments, paints, lacquers and varnish	1	×	1	1
F110	Waste from the production, formulation and use of resins, latex, plasticisers, glues and adhesives	×	×	1	1
F120	Solvent based-wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers and varnish	×	X	1	1
F130	Solvent based wastes from the production, formulation and use of resins, latex, plasticisers, glues and adhesives	×	×	1	1
G100	Ethers	X	X	1	1
G110	Non-halogenated organic solvents	X	×	1	1
G130	Dry-cleaning wastes containing perchloroethylene	×	×	1	1
G150	Halogenated organic solvents	×	×	1	1
G160	Waste from the production, formulation and use of organic solvents	×	X	1	1
H100	Waste from the production, formulation and use of biocides and phytopharmaceuticals	×	×	1	1
H110	Organic phosphorous compounds	X	X	✓	1
H130	Organochlorine pesticides	X	×	1	1
H170	Waste from manufacture, formulation and use of wood-preserving chemicals	×	×	1	1
J100	Waste mineral oils unfit for their original intended use	1	X	1	1
J120	Waste oil/water, hydrocarbons/water mixtures or emulsions	X	X	1	V
J130	Oil interceptor wastes	1	X	1	1
J160	Waste tarry residues arising from refining, distillation, and any pyrolytic treatment	1	X	1	1
J170	Used oil filters	X	×	1	1
J180	Oil sludge	X	×	1	4
K100	Animal effluent and residues (abattoir effluent, poultry and fish processing wastes)	Х	X	X	X

NEPM Code	Waste Description	Temporary Storage (L9240/2020/1)		Operational (this application)	
		Solid Waste	Liquid Waste	Solid Waste	Liquid Waste
K110	Grease trap waste	X	×	X	X
K130	Sewage sludge and residues including nightsoil and septic tank sludge	X	X	X	X
K140	Tannery wastes (including leather dust, ash, sludges and flours)	<b>V</b>	X	1	1
K190	Wool scouring wastes	X	×	1	1
K200	Food and beverage processing wastes	X	×	X	X
K210	Septage wastes	Х	X	X	Х
L100	Car and truck wash waters	X	×	1	1
L150	Industrial wash waters contaminated with a controlled waste	Х	×	1	1
M100	Waste substances and articles containing or contaminated with polychlorinated biphenyls, polychlorinated naphthalenes, polychlorinated terphenyls and/or polybrominated biphenyls	~	X	~	<b>V</b>
M105	Waste substances and articles containing polybrominated biphenyls (PBB), polychlorinated naphthalenes (PCN), and/or polychlorinated terphenyls (PCT)	1	×	~	1
M130	Non-halogenated organic chemicals	X	×	1	1
M150	Phenols, phenol compounds including chlorophenols	1	×	1	1
M160	Organo halogen compounds—other than substances referred to in this Table (e.g. CFCs)	X	X	1	1
M170	Polychlorinated dibenzo-furan (any congener)	1	×	1	1
M180	Polychlorinated dibenzo-p-dioxin (any congener)	V	×	1	1
M210	Cyanides (organic)	Х	X	1	1
M220	Isocyanate compounds	Х	X	1	1
M230	Triethylamine catalysts for setting foundry sands	Х	×	1	1
M250	Surface active agents (surfactants), containing principally organic constituents and which may contain metals and inorganic materials	<b>V</b>	×	1	1
M260	Highly odorous organic chemicals (including mercaptans and acrylates)	Х	×	1	1
M270	Per- and polyfluoroalkyl substances (PFAS) contaminated materials, including waste PFAS containing products and contaminated containers	1	V	V	1
N100	Containers and drums that are contaminated with residues of substances referred to in this list	1	×	~	1
N120	Soils contaminated with a controlled waste	1	X	1	1
N140	Fire debris and fire wash waters	1	X	1	1
N150	Fly ash, excluding fly ash generated from Australian coal fired power stations	4	X	1	<b>V</b>

NEPM Code	Waste Description	Temporary Storage (L9240/2020/1)		Operational (this application)	
		Solid Waste	Liquid Waste	Solid Waste	Liquid Waste
N160	Encapsulated, chemically-fixed, solidified or polymerised wastes referred to in this list	1	×	4	1
N190	Filter cake contaminated with residues of substances referred to in this list	1	×	1	1
N205	Residues from industrial waste treatment/disposal operations	1	×	1	1
N220	Asbestos	1	X	1	1
N230	Ceramic-based fibres with physico-chemical characteristics similar to those of asbestos	1	X	1	1
R100	Clinical and related wastes	X	×	X	X
R120	Waste pharmaceuticals, drugs and medicines	X	X	1	1
R130	Cytotoxic waste	Х	X	Х	X
R140	Waste from the production and preparation of pharmaceutical products	X	×	1	1
T100	Waste chemical substances arising from research and development or teaching activities, including those which are not identified and/or are new and whose effects on human health and/or the environment are not known	1	×	<b>V</b>	1
T120	Waste from the production, formulation and use of photographic chemicals and processing materials	X	X	1	1
T140	Tyres	Х	X	X	X
LLW	Low level radioactive waste	1	X	1	1