Amendment Report

Application for Licence Amendment

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

Licence Number	L9240/2020/1
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 2 of the Revised Licence As defined by the Premises maps attached to the Revised Licence
Date of Report	01 December 2020
Proposed Decision	Revised licence granted

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MANAGER WASTE INDUSTRIES
REGULATORY SERVICES
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 https://dwer.wa.gov.au/regulatory-documents.

2.2 Application summary

On 27 August 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 Licence Holder is seeking to increase the allowable above-ground storage of waste from 10,000 tonnes to 15,000 tonnes in the following infrastructure that was approved for construction under W6308/2019/1:

- Mixed store; and
- Low Level Radiation Waste, Liquid Waste and Sludge Storage Yard.

The Licence Holder is also seeking to authorise the storage of bulky contaminated wastes that are unable to be contained within enclosed shipping containers (as per the requirements of the existing licence), and rather, be on flat rack containers and packaged in a manner that prevents the discharge of contaminants.

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 are consistent with those approved under the current Licence. The applicant has requested that this amendment consider the acceptance of large bulky waste types that meet the description of those already included on the Existing Licence, but that otherwise cannot be contained within secondary packaging. 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	10,000 tonnes (combined) per annual period of which no more than 2,000 tonnes to be Category 61 Liquid Waste	15,000 tones (combined) per annual period	*Combined total* 15,000 tonnes per annual period
61A: Solid waste facility			

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
Category 61 and 61A – Waste inspection and temporary above-ground waste storage		
1	Mixed Store	ID 15 in Figure 1
2	Low Level Radiation Waste, Liquid Waste and Sludge Storage Yard[1]	ID 24 in Figure 1

Note 1: 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 Report:

- Waste Storage – Mixed Yard, the Low Level Radiation Waste, Liquid Waste & Sludge Storage Yard and the 4 x Stormwater Tanks – W6308/2019/1, received 27 August 2020.
- The Brine Pond, the Workshop & Laydown Area and the Waste Immobilisation Plant – W6308/2019/1, received 21 September 2020.

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

- Waste Storage – Mixed Store;
- Low Level Radiation Waste, Liquid Waste and Sludge Storage Yard;
- Yard Containment Pond (Works Approval W6243/2019/1);
- 4 x Stormwater Storage Tanks;
- Brine Pond;
- Workshop & Laydown Area; and
- Waste Immobilisation Plant.

The Workshop & Laydown Area and Waste Immobilisation Plant are outside the scope of this amendment and have not been considered in this assessment.

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 the previous amendment application to increase the temporary onsite storage to 10,000 tonnes, 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.

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 during the previous amendment for 10,000 tonnes of temporary waste storage that the Dangerous Goods 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.

Key Finding: The Delegated Officer notes that 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 radioactive wastes.

Key Finding: The Delegated Officer notes that this amendment does not seeking to change the low-level radioactive waste acceptance conditions granted under the Existing Licence.

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 2.0 (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.

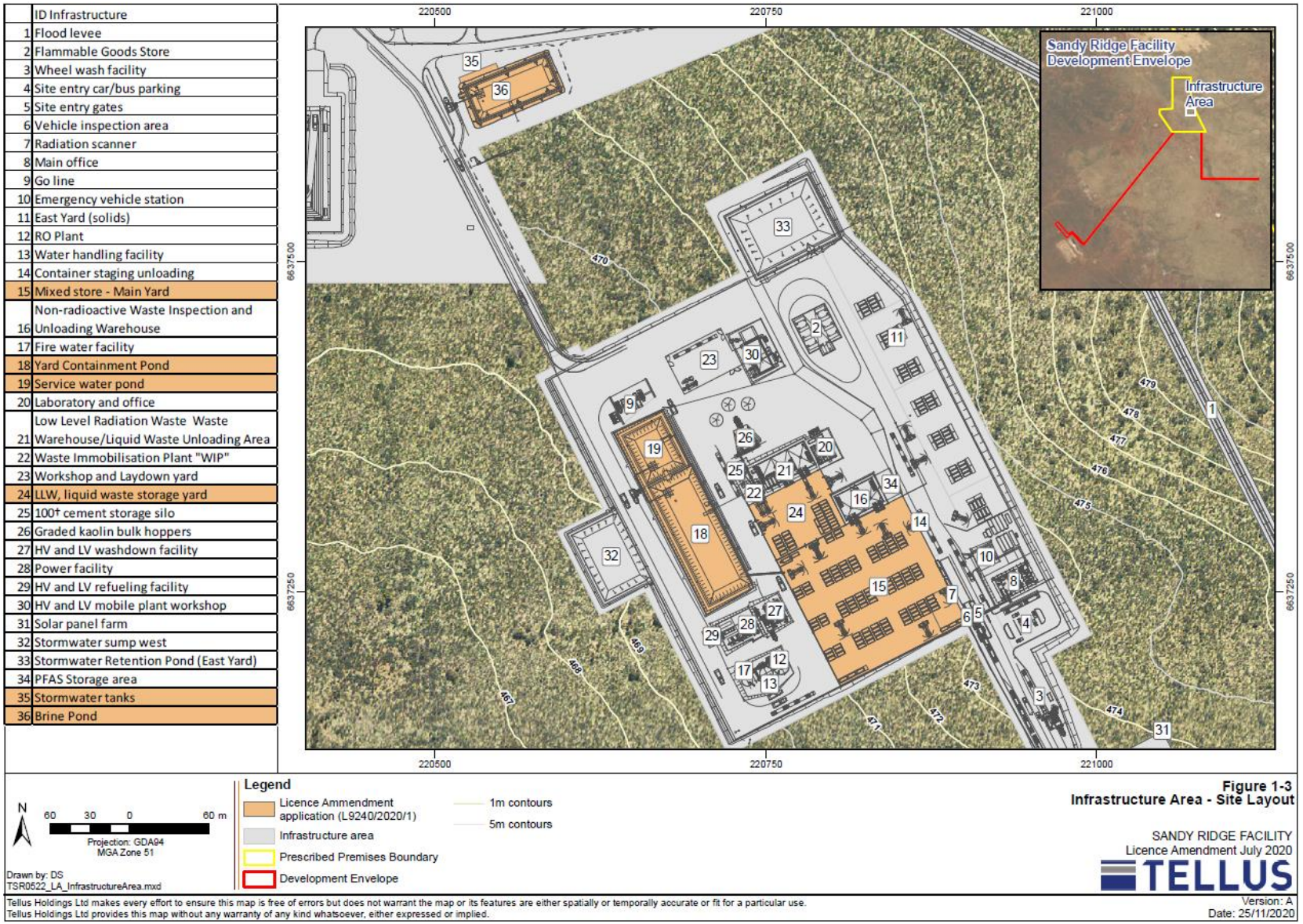

Figure 1: Site Plan

Licence: L9240/2020/1

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 *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 isolation/disposal	Dust	Air/windborne pathway	Location of the premises is a significant distance from receptors. Vehicle speed limits are in place. Sealed surfaces in high traffic areas. Use of water carts for dust suppression.
	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. Waste will be stored in closed containers.
	Waste and leachate	Direct discharge to land	Implement Leachate Monitoring and Management Plan approved under MS 1078 Storage not exceeding 12 months. Waste storage areas constructed with civil earthworks pavement and drainage design (in accordance with Works Approvals W6308/2019/1 and W6305/2019/1). Self-bunded containers, stormwater sump to contain spills and operational procedures. Bulky wastes – a section of the Mixed Store storage area may be set aside on a campaign basis for consignments of bulky waste items (e.g. contaminated sleepers or pipes) that do not require transport or storage in enclosed shipping containers.

Sources	Emission	Potential pathways	Proposed controls
			These bulky wastes will be packaged so as to prevent discharge of contaminates and stored on flat rack shipping containers.
	Potentially contaminated stormwater	Direct discharge to land / overland runoff	Civil earthworks pavement specification and drainage design, self-bunded containers, stormwater sump to contain spills Operational procedures Stormwater within Mixed Store area to drain to the HDPE lined Yard Containment Pond, capable of capturing a 1:100 year 72-hour storm event. 4x Stormwater tanks capable of capturing stormwater from the Low Level Radiation Waste, Liquid Waste and Sludge Storage Yard and Liquid Waste Unloading Area. Each tank with a capacity of 45,000 litres connected in series with the final tank overflowing into the HDPE lined Brine Pond. HDPE lined brine pond with capacity to contain 2,293m^3 The Liquid waste unloading area sump is also connected to the HDPE lined Yard Containment Pond to provide additional stormwater storage capacity for use in an emergency situation.
	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 the event of fire or explosion	Waste segregation and storage in accordance with Dangerous Goods storage requirements. Waste acceptance procedures (as summarised in the Application and supporting documents). Emergency and spill response equipment. Reticulated fire hydrant system installed throughout the infrastructure area.

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 located 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[1]	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 Review[1]	*Calytrix creswellii* – listed as Priority 3 by the DBCA – recorded within the mine infrastructure area. *Banksia arborea* – listed as Priority 4 by the DBCA – recorded within the groundwater abstraction area.

Threatened/Priority Fauna[1]	*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 ~6,000-6,500 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.

[1]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.

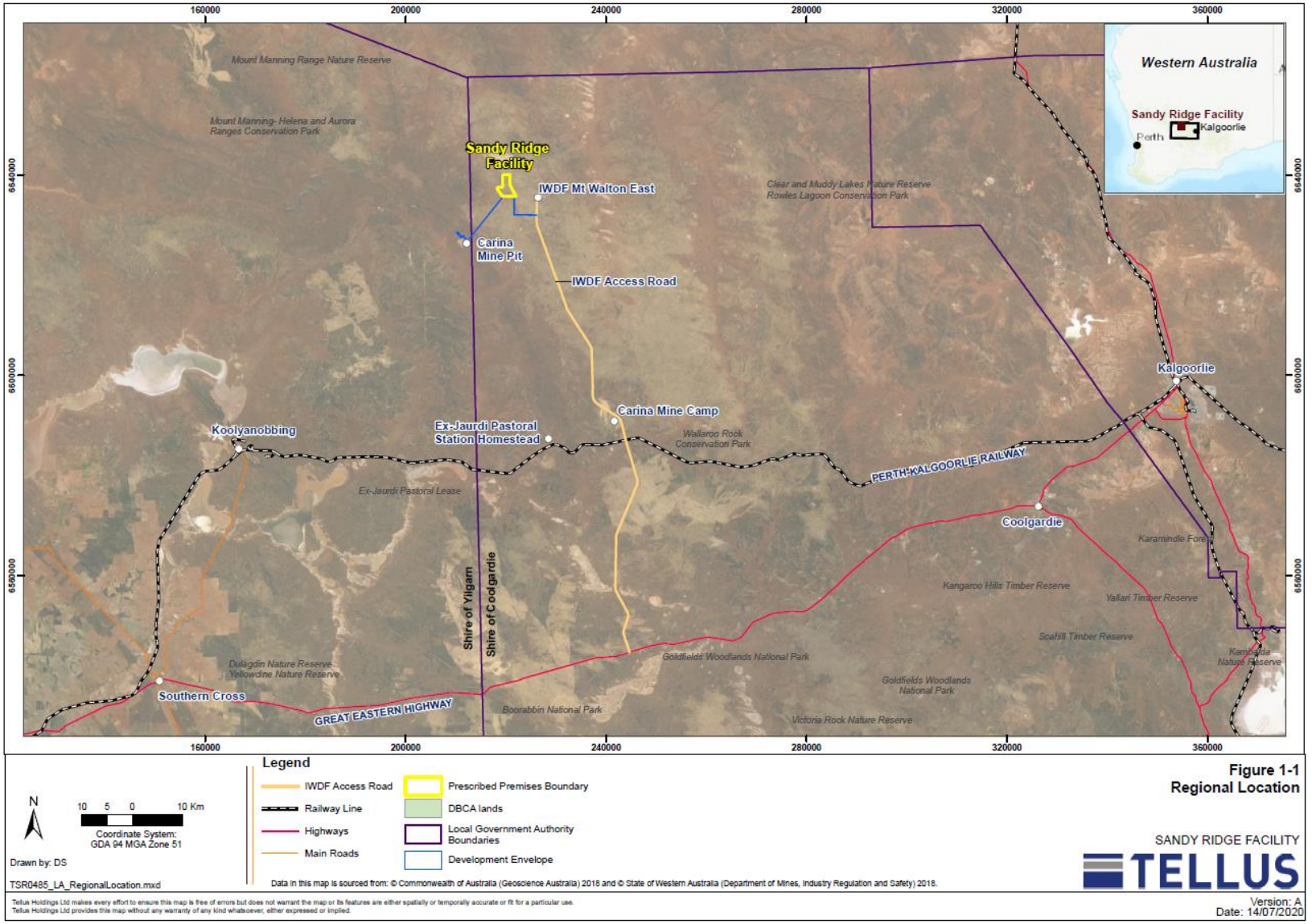

Figure 2: Distance to sensitive receptors

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[1]** **C = consequence** **L = likelihood**	**Licence Holder's controls sufficient?**	**Conditions[2] of licence**	**Justification for additional regulatory controls**
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Acceptance and handling of solid waste onto the premises for temporary storage prior to permanent isolation/disposal	Dust	Air/windborne pathway causing impacts to health and amenity	Temporary workers of Mount Walton IWDF 5km away	Refer to Section 3.1.1	C = Slight L = Rare **Low Risk**	Y	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.
	Noise/ vibration	Air/windborne pathway causing impacts to health and amenity	Temporary workers of Mount Walton IWDF 5km away	Refer to Section 3.1.1	C = Slight L = Rare **Low Risk**	Y	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 rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
	Odour	Air/windborne pathway causing impacts to health and amenity	Temporary workers of Mount Walton IWDF 5km away	Refer to Section 3.1.1	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 causing discharge to land	Direct discharge to land causing soil contamination resulting in impacts to vegetation growth and fauna health	Surrounding ecosystems, native vegetation communities and fauna	Refer to Section 3.1.1	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 cleanup 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 (waste storage – mixed yard, low level	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 3.1.1	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 considered appropriate to minimize the potential

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
radiation waste[3], liquid waste & sludge store, east yard/low level radiation waste warehouse and non-radioactive waste inspection & unloading warehouse) pending processing or disposal		Overland runoff resulting in contamination of waters or deterioration of local/regional surface water ecosystems	Non-perennial surface water bodies within and adjacent to the Premises	Refer to Section 3.1.1	C = Minor L = Unlikely **Medium Risk**	Y	Infrastructure requirements condition 1 Stormwater management conditions 17 – 19	for hazardous wastes and materials to contaminate stormwater. Conditions included in the Licence generally replicate controls proposed by the Licence Holder.
	Odour	Air/windborne pathway causing impacts to health and amenity	Temporary workers of Mount Walton IWDF 5km away	Refer to Section 3.1.1	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.

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
	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 3.1.1	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 provide will provide a sufficient barrier to limit vertical seepage for solid waste until waste clean-up measures are implemented. Conditions included in the Licence generally replicate controls proposed by the Licence Holder. As part of the amendment application, the Licence Holder has requested a change to the existing condition regarding contaminated solid waste storage. The change seeks to vary the definition to include large bulky wastes that otherwise cannot be contained within secondary packaging. Taking into consideration the controls proposed by the Licence Holder and the existing Licence controls, the Delegated Officer does not consider this change to be significant. As such, amendments have been made to the conditions to allow for the storage of 'bulky wastes' outside of sealed containers, but packaged in a manner that prevents discharge of contaminants.

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
	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 3.1.1	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 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. Conditions included in the Licence generally replication controls proposed by the Licence Holder.
	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 3.1.1	C = Slight L = Unlikely **Low Risk**	Y	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. The general provisions of the EP Act are considered sufficient in regulating windblown waste emissions.
	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 3.1.1	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.

Note 3: Additional radioactive waste is not proposed to be accepted as part of this application.

4. Consultation

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

Table 6: Consultation

Consultation method	Comments received	Department response
Shire of Coolgardie advised of proposal (24/09/2020)	The Shire of Coolgardie advised on 5 October 2020 that the Shire has no objection to the proposal.	Noted
Shire of Yilgarn advised of proposal (24/09/2020)	The Shire of Yilgarn advised on 6 October 2020 that the Shire Council oppose the application pending satisfactory public consultation and explanation by Tellus Holdings Ltd of what is being proposed.	This amendment relates only to increasing the throughput of temporary storage from 10,000 tonnes per annum to 15,000 tonnes per annum and is consistent with Ministerial Statement MS1078. The proposal has undergone public consultation as part of both the Part IV and Part V assessment processes. Additional clarification was requested from the Shire of Yilgarn, however no further comments were received within the consultation period.
DMIRS - Dangerous Goods and Critical Risk Directorate advised of proposal (24/09/2020)	No comments received	N/A
Department of Planning, Lands and Heritage (DPLH) advised of proposal (24/09/2020)	DPLH advised on 14 October 2020 that the Ministerial Statement 1078 allows for up to 15,000 tonnes of Class IV and V waste for temporary surface storage per Table 2 in Schedule 1. DPLH advised that they have no objection to the proposed application. The Financial Assurances Deed and associated suite of documents required for the Sandy Ridge Facility have now been fully executed and acceptance of this additional waste can proceed once the necessary approvals are in place.	Noted
Licence Holder was provided with draft amendment on (20/11/2020)	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: • Mixed Store • Low Level Radiation Waste, Liquid Waste and Sludge Storage Yard The following infrastructure has also been included following compliance report submission. This infrastructure is directly related to the stormwater management of the above storage areas. • Yard containment pond • 4x Stormwater Storage Tanks • Brine Pond The Stormwater Retention Pond has been renamed to Stormwater Retention Pond (East Yard) for ease of referencing in the Licence. The East Yard Earth Bund has been removed from Table 1 as this infrastructure is no longer required following completion of construction of the area. Stormwater management infrastructure is now in place and Condition 15 applies.
7, Table 3	Table 3 amended to include additional storage areas for different waste types. Power pole waste type amended to reflect all bulky waste items.
15	Stormwater Retention Pond has been renamed to Stormwater Retention Pond (East Yard) for ease of referencing in the Licence.
16	A new condition has been inserted requiring the Licence Holder to ensure that excess stormwater within the Low-Level Radiation Waste, Liquid Waste and Sludge Storage Yard and Liquid Waste Unloading Area is diverted to the 4x Stormwater Storage Tanks. This is consistent with the Licence Holder's proposed stormwater management controls.
17	A new condition has been inserted requiring the Licence Holder to ensure that stormwater within the Mixed Store is diverted to the Yard Containment Pond This is consistent with the Licence Holder's proposed stormwater management controls.
18 (existing licence condition 16)	Existing licence condition 16 has been amended to also require management of the Yard Containment Pond and Brine Pond.
Schedule 1, Figure 3	Infrastructure area map updated to reflect map provided in the application.

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 A1928026)
5. Turner & Townsend 2020*, Compliance Report 7, Waste Storage – Mixed Yard, the Low-Level Radiation Waste, Liquid Waste & Sludge Storage Yard and the 4 x Stormwater Tanks – W6308/2019/1*, Perth, Western Australia (DWER Records A1928364)

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

Condition	Summary of Licence Holder's comment	Department's response
1, Table 1	In addition to the items listed by DWER, Tellus request that reference to the East Yard Earth Bund (row 3 of Table 1) be removed. The earth bud was installed as a security control to prevent construction crew and construction machinery from entering the Temporary Waste Storage Area during construction. This control is no longer required now that construction of the Facility is complete. Security fencing, security gates and closed circuit tv have been installed. The work force is limited to only Tellus staff who are fully trained in the safe operation for the Facility. The earth bund needs to be removed to allow safe access by operational machines to handle stored wastes.	Noted and amended. It is noted that the earth bund is no longer required and that stormwater management infrastructure is now in place to manage any contaminated/potentially contaminated stormwater in the East Yard.
	Tellus suggest a rewording of the operational requirement for the 4 x Stormwater Storage Tanks. In row 12 of Table 1, in Column 2, item (a) consider replacing "capable of capturing" with "Capable of holding". "Capturing" infers that water passively drains to the tanks, but this is not the case.	Noted and amended.
16 (17)	Tellus has no objections to the proposed amendment and confirm that it reflects information on drainage management of the Low-Level Radiation Waste (LLW) area that was provided by Tellus in the licence application. Tellus also advises that in addition to the stormwater holding capacity provided by the 4 x Stormwater Storage Tanks, the LLW area is constructed with sumps and valved piping that can be used in emergency situations. Tellus noted in a response to a request for further information from DWER concerning W6308/2019/1 on 14 November 2019, *"the liquid waste unloading area sump is connected to the HDPE lined storm water retention pond with a 200 mm diameter steel pipe. An isolation valve will be fitted within the pipe work between the liquid waste unloading area and the HDPE lined pond. This valve will be kept in the locked position and locked out to prevent the valve from being opened. This drain is for use only in emergencies and after consultation with DWER…".*	Noted, as this would only occur in an emergency situation and the discharge would occur to a lined containment pond, no changes are required to the conditions of the Licence.
Schedule 1, Figure 3	Tellus has no objection to the proposed amendment. It was noted that the Brine Pond is not shaded, numbered or listed in the legend of the revised Figure 3. Tellus provided an updated version of Figure 3 to include the Brine Pond.	Noted and amended to include revised Figure 3.

Appendix 2: Application validation summary

<table>
<tr><th colspan="6">SECTION 1: APPLICATION SUMMARY</th></tr>
<tr><td colspan="6">Application type</td></tr>
<tr><td rowspan="2">Amendment to licence</td><td rowspan="2">☒</td><td>Current licence number:</td><td colspan="3">L9240/2020/1</td></tr>
<tr><td>Relevant works approval number:</td><td>W6308/2019/1</td><td>N/A</td><td>☐</td></tr>
<tr><td colspan="2">Date application received</td><td colspan="4">27 August 2020</td></tr>
<tr><td colspan="6">Applicant and Premises details</td></tr>
<tr><td colspan="2">Applicant name/s (full legal name/s)</td><td colspan="4">Tellus Holdings Ltd</td></tr>
<tr><td colspan="2">Premises name</td><td colspan="4">Sandy Ridge Facility</td></tr>
<tr><td colspan="2">Premises location</td><td colspan="4">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 Easter Highway, along Access Reserve 44201, Boorabbin WA 6429</td></tr>
<tr><td colspan="2">Local Government Authority</td><td colspan="4">Shire of Coolgardie</td></tr>
<tr><td colspan="6">Application documents</td></tr>
<tr><td colspan="2">HPCM file reference number:</td><td colspan="4">A1928027</td></tr>
<tr><td colspan="2">Key application documents (additional to application form):</td><td colspan="4">Application supporting document</td></tr>
<tr><td colspan="6">Scope of application/assessment</td></tr>
<tr><td colspan="2">Summary of proposed activities or changes to existing operations.</td><td colspan="4">Amendment to increase the allowable above-ground storage of waste from 10,000 tonnes to 15,000 tonnes in infrastructure that was approved under W6308/2019/1. Specifically, this application seeks approval for the following activities relating to Class IV and Class V wastes (as defined in the Landfill Waste Classification and Waste Definitions):
• Above-ground storage of waste in the Mixed Store and in the Low Level Radiation Waste, Liquid Waste and Sludge Storage Yard in accordance with Dangerous Goods Licence DGS022452, as per Table 2 of W6308/2019/1.</td></tr>
</table>

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	10,000 tonnes (combined) per annual period (assessed under September amendment application)	Combined total 15,000 tonnes to be stored at any one time.
Category 61A: Solid waste facility		

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 ☐	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)
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) Lease agreement has conditions related to waste acceptance.
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