Application for Licence Amendment

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

Licence Number	L6759/1996/12
Licence Holder	Pilbara Iron Company (Services) Pty Ltd
ACN	107 210 248
File Number	DER2014/000866
Premises	Paraburdoo Wastewater Treatment Plant and Liquid Waste Facility Legal description – Lot 34 on Plan 24150 General Lease N104471 As defined by the coordinates and Premises maps in Schedule 1 of the Revised Licence)
Date of Report	20 May 2021
Proposed Decision	Revised licence granted

Tracey Hassell

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Tracey Hassell
MANAGER WASTE INDUSTRIES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

Licence L6759/1996/12 is held by Pilbara Iron Company (Services) Pty Ltd (Licence Holder) for the Paraburdoo Wastewater Treatment Plant and Liquid Waste Facility (the Premises), located at Lot 34 on Plan 24150 General Lease N104471.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the construction of the proposed amendment and operation of the Premises. As a result of this assessment, Revised Licence L6759/1996/12 has been granted.

The Revised Licence issued as a result of this amendment consolidates and supersedes the existing Licence previously granted in relation to the Premises. The Revised Licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

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 7 October 2020, the Licence Holder submitted an application to the department to amend Licence L6759/1996/12 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- The establishment of two vegetation sprayfields;
- A change of the treated wastewater disposal mechanism from discharge to an ephemeral creek, to discharge to land as irrigation to the sprayfields;
- Installation of a 40 kL irrigation holding tank;
- Installation of two aeration units within existing Pond 1;
- Re-establishment of an existing chlorine dosing system;
- Installation of a tilling yard comprised of four tillings beds for the bioremediation of oil and grease waste;
- Upgrades to existing K110 waste drying pits to improve evaporation efficiency;
- Upgrades to existing K210 waste drying pits to improve operator access to the pits; and
- The installation of signage and 1.8 m high fencing associated with the works.

The amendments are being sought to improve the efficiency of the Premises and as part of mosquito larvae control in the West Pilbara. The change to treated wastewater disposal via irrigation will reduce the presence of surface water bodies in the area and decrease the available habitat for mosquito larvae. The premises location and a site plan of the proposed amendment are shown in Figure 1 and Figure 2 respectively.

This amendment is limited only to changes to Category 54 and 61 activities from the Existing Licence. No changes to the capacity and throughput of the existing Licence have been requested by the Licence Holder.

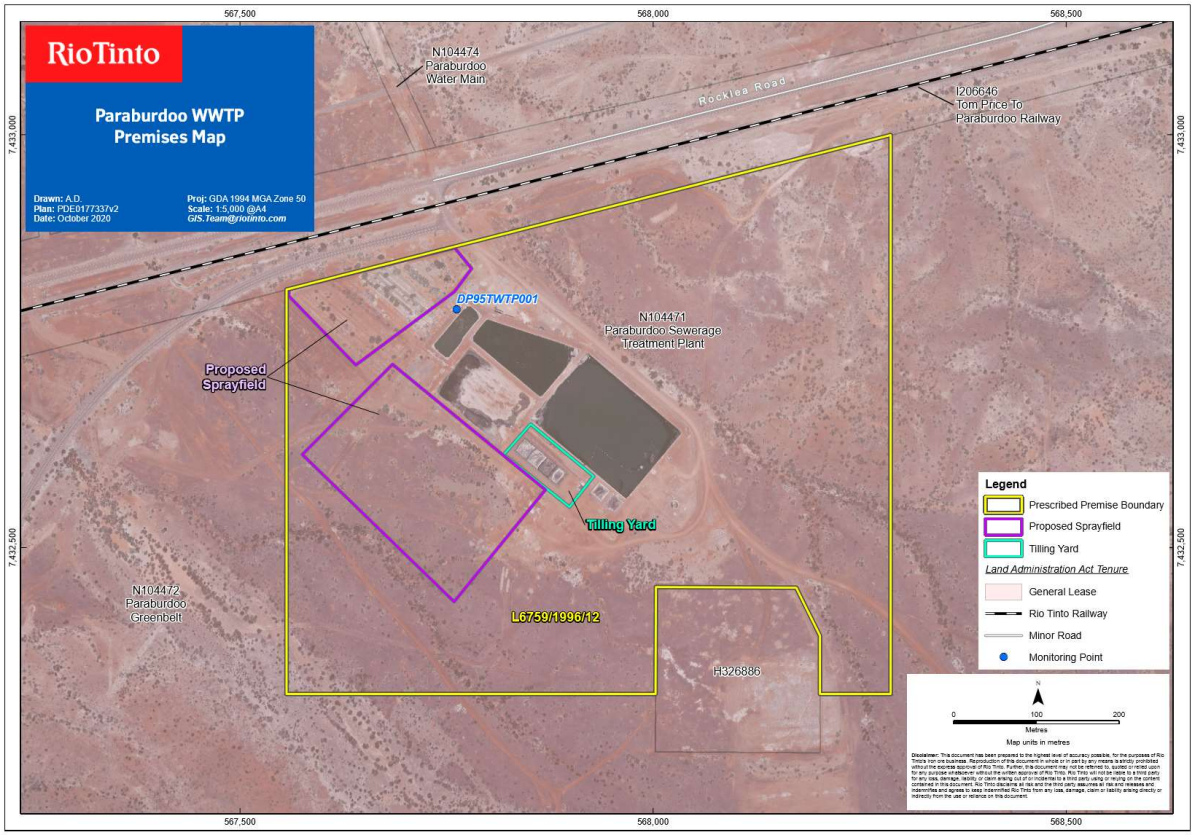

Figure 1: Premises location

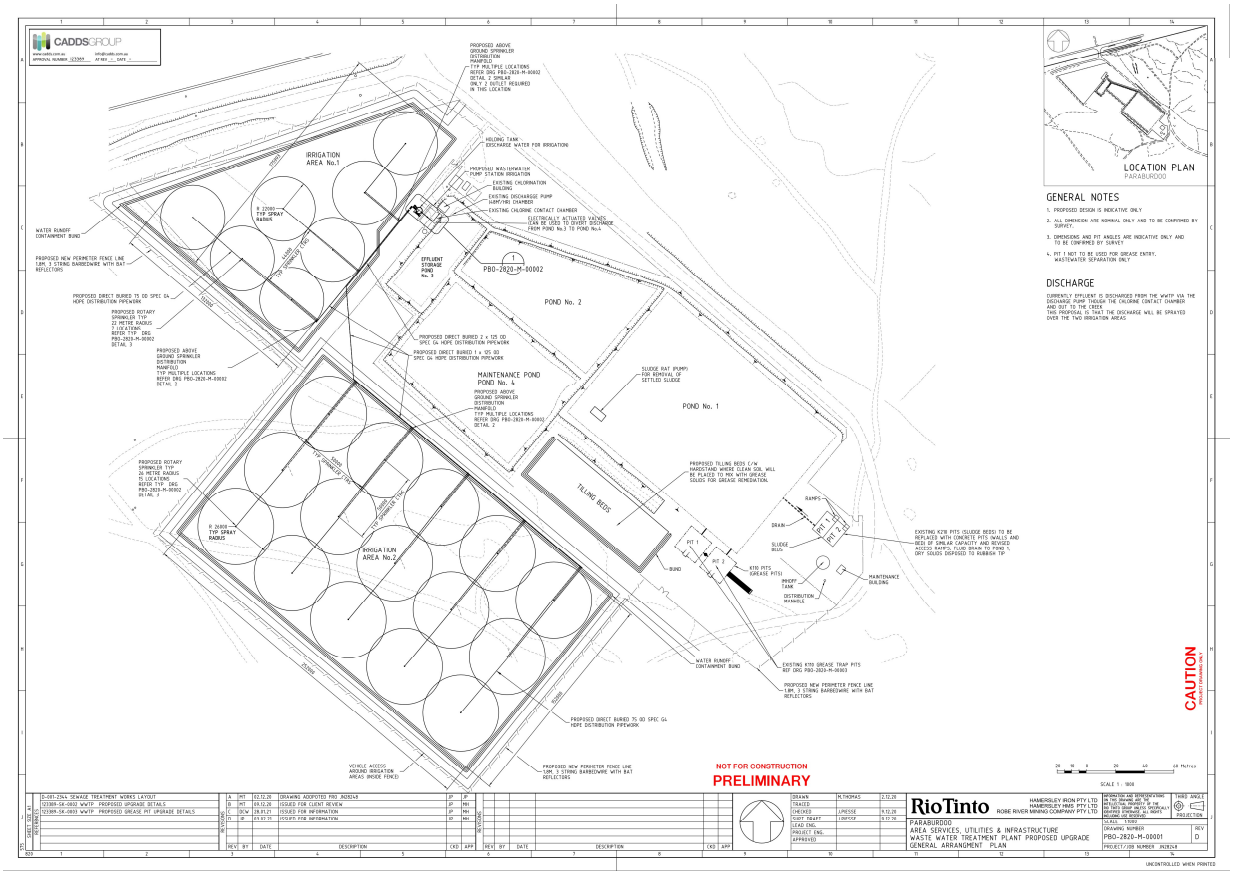

Figure 2: Site plan of the proposed amendment

Licence: L6759/1996/12

2.3 EP Act Part V Division 2 (Clearing of Native Vegetation)

The Licence Holder has indicated that approximately 2 ha of native vegetation will require clearing at the Premises to facilitate the proposed amendment. The clearing will be blade down clearing for ground preparation of the fencing and sprinkler systems, installation of firebreaks and construction of the tilling yards. The clearing will be undertaken through the Licence Holder's existing Native Vegetation Clearing Permit CPS 6110/5.

The Department has reviewed the conditions of CPS 6110/5 and considers that the permit is appropriate for the clearing proposed at the premises. However, it was noted that conditions 7 and 8 of CPS 6110/5 require the Licence Holder to conduct a flora and fauna survey of the proposed areas prior to the beginning of clearing. Secondary CEO approval may be required under CPS 6110/5 depending on the result of the flora and fauna survey.

Key findings:

1. The Licence Holder is required to conduct a pre-clearing flora and fauna survey under conditions 7 and 8 of CPS 6110/5.
2. The Department's Native Vegetation Regulation Branch requested that the Licence Holder provide an update on the status of compliance with CPS 6110/5 prior to the commencement of clearing for the proposed works. The Licence Holder provided a response on 30 April 2021 stating that the pre-clearing flora and fauna survey was scheduled to occur on 26 May 2021.

2.4 State Agreements

The Premises is subject to the *Iron Ore (Hamersley Range) Agreement Act 1963* and the *Iron Ore (Hamersley Range) Agreement Act Amendment Act 1968.*

The Department of Jobs, Tourism, Science and Innovation has advised that the proposed amendment can implemented under the relevant agreements.

2.5 Consolidation and update of Licence format

As part of this amendment package the department has consolidated the licence by incorporating changes made under the Amendment Notices as summarised in Table 1.

Table 1: Licences consolidated in this amendment

Instrument	Issued	Summary of approval
L6759/1996/12	08/06/2015	Licence commencement
L6759/1996/12	29/04/2016	Notice of Amendment of Licence Expiry Dates

The department has not undertaken any additional risk assessment of the Premises related to previous Amendment Notices, nor for existing licence conditions and authorised activities. The department has however, updated the layout and wording of existing conditions to reflect current regulatory condition sets. As part of the consolidation, the CEO has also:

- updated the format and appearance of the licence;
- deleted the redundant AACR form set out in Schedule 1 of the previous licence and advised the Licence Holder to obtain the form from the department's website;
- revised licence condition's numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and

- corrected clerical mistakes and unintentional errors.

The full consolidation of licence conditions as they relate to this Revised Licence are detailed in Section 5.1. Previously issued Amendment Notices will remain on the department's website for future reference and will act as a record of the department's decision making.

The Delegated Officer has also considered comments previously provided by the Licence Holder during the formerly incomplete draft REFIRE conversion of licence L6759/1996/12.

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 construction of the proposed amendment and premises operation which have been considered in this Amendment Report are detailed in Table 2 below.

Table 2 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Earthworks Vehicle movements	Air/windborne pathway	Clearing restricted to minimum area required for construction related activities. Application of dust suppression water where necessary.
Noise	Machinery operation and construction noise Vehicle movements	Air/windborne pathway	Construction hours of 7 am to 5 pm.

Emission	Sources	Potential pathways	Proposed controls
Treated wastewater containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Containment loss during upgrade works to discharge infrastructure	Overland flow	Treated wastewater from the treatment process will be temporarily diverted to Pond 4 when connecting pipelines located after the Pond 3 discharge chamber.
Leachate containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Containment loss during upgrade works in the grease pits and sludge beds	Overland flow Subsurface seepage	K110 and K210 waste will not be accepted at the premises prior to and during the upgrade works. Waste drying pits will be emptied and cleaned before works commence.
Commissioning			
Treated wastewater containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Testing of irrigation infrastructure	Overland flow Subsurface seepage	Leak testing of the irrigation holding tank will be undertaken using potable water prior to use. Testing of installed pipelines, pumps, valves and sprinkler system will be undertaken using potable water. Pressure testing of irrigation pipelines and manifolds will be undertaken at 1.5 times the max operating pressure.
Leachate containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Testing of upgraded grease pits and sludge beds	Overland flow Subsurface seepage	New infrastructure testing in the K110 and K210 waste drying pits will be undertaken using potable water. Leak testing water from the waste drying pits will be returned to Pond 1.
Operation			
Noise	Aerator operation	Air/windborne pathway	None specified.
Odour	Treatment of sewage within Pond 1	Air/windborne pathway	Installation of two aerators.

Emission	Sources	Potential pathways	Proposed controls
	Drying of waste within upgraded grease pits and sludge beds		Drying efficiency within waste grease pits increased by; • only receiving waste directly into grease pit 2; and • separating liquid by draining from pit 2 to pit 1 via the balance pipe installed below the grease level.
	Bioremediation of oil and grease sludge within the tilling yard		Regular tilling and addition of moisture to promote soil aeration and mixing.
Leachate containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Containment loss from upgraded grease pits and sludge beds	Overland flow Subsurface seepage	Concrete construction to provide a permeability < 1 x 10^{-9} m/s. Increased drying efficiency via balance pipe for separation of liquid between grease pits. Overflow pipework directing flow back to the main treatment pond.
	Bioremediation of oil and grease sludge within the tilling yard	Overland flow Subsurface seepage	3-sided perimeter bunding around tilling yard. Grading of tilling beds to direct run-off back to the WWTP. Application rate to reduce excess run-off generation.
Treated wastewater containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Containment loss and discharge of treated wastewater to the irrigation sprayfield	Overland flow	Standby irrigation pump for operation during high peak flows or failure of duty pump. Level sensor in the irrigation tank triggers pump start and shutoff. High level alarm within irrigation holding tank triggers automatic flow diversion to Pond 4. SCADA system monitors irrigation pumps for decreased flow and higher pressure, indicating blockage at the sprayfield. Feedback triggers the system to open additional spray zones. Fittings on irrigation spray head nozzles expand to allow blockages to pass through. Sprayfield sized at 4.8 ha with a maximum 300 m^3/day discharge rate resulting in the following nutrient

<table>
<tr><th>Emission</th><th>Sources</th><th>Potential pathways</th><th>Proposed controls</th></tr>
<tr><td></td><td></td><td>Subsurface seepage</td><td>loadings:
<table>
<tr><th>Parameter</th><th>Loading (kg/ha/yr)</th><th>WQPN Category D Limit (kg/ha/yr)</th></tr>
<tr><td>Total nitrogen</td><td>307.9</td><td>480</td></tr>
<tr><td>Total phosphorus</td><td>75.6</td><td>120</td></tr>
</table>
Disinfection of wastewater via chlorination in retention tank to allow appropriate contact time.

Disinfection to achieve a thermotolerant coliform concentration <1,000 cfu/100ml.

Zoning and sequential operation of sprayfield to allow drying of soil.

Layout of low drift fan-spray nozzles to provide a coarse droplet with an even spray radius and distribution.

Weekly visual monitoring of the sprayfield and maintenance were required.

1.8 m high 3-string barbed wire fencing and signage.

Boundary windrow to prevent run-off.</td></tr>
<tr><td>Chlorine gas</td><td>Containment loss from chlorine dosing system</td><td>Air/windborne pathway</td><td>Not assessed to prevent duplication of the Dangerous Goods Safety Act 2004 and Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007</td></tr>
</table>

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 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guidance Statement: Environmental Siting* (DER 2016)).

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

Receptors	Distance from premises and prescribed activity
Human receptors	
Paraburdoo Caravan Park	Approximately 655 m north of the Premises boundary and 1 km northeast of the activity area
Paraburdoo residential area	Approximately 920 m north of the Premises boundary and 1.15 km north of the activity area.
Paraburdoo industrial area	Approximately 840 m northwest of the Premises boundary and 865 m northwest of the activity area.
Environmental receptors	
Groundwater - Unconfined Hamersley Fractured Rock aquifer Groundwater flow direction at the Premises is inferred to be southeast due to the influence of dewatering from the Paraburdoo mine site (ERM 2021). The mine is located approximately 4 km from the Premises.	Approximately 8 - 10 m BGL
Surface watercourses (250k scale)	A minor non-perennial watercourse intersects the south-west premises boundary. A minor non-perennial watercourse is located approximately 600 m northwest of the Premises boundary. Bellary Creek is located approximately 1.4 km west of the premise boundary. The two minor non-perennial watercourses above drain to Bellary Creek at this location.
Surface watercourses (< 250k scale) draining to Bellary Creek	Three minor non-perennial watercourses drain the northeast corner of the Premises. One minor non-perennial watercourse drains the west premises boundary.

Receptors	Distance from premises and prescribed activity
Public Drinking Water Source Area (PDWSA) - Paraburdoo Water Reserve Priority 1 area Advice received from the Department's North West Region indicates that geological faults are present in the area which act to compartmentalise areas of groundwater flow. The townsite and PDWSA are considered to be in a separate geological compartment to the premises and would not be connected hydraulically. The PDWSA has not been considered further as a potential receptor in the risk assessment.	Approximately 1.375 km north of the Premises boundary.

Information relating to pathways and site characteristics at the Premises are provided in Table 4 below.

Table 4: Soil, geology and meteorology at the Premises (ERM 2021)

Aspect	Details
Geology	Intrusive investigations at the Premises describes the underlying geology as a colluvium or alluvium comprised of a dry, red brown, friable gravelly clay; overlying a harder, red brown, clayey, gravel to a depth of 1.3 mBGL overlying bedrock.
Soil properties	Intrusive investigations at the Premises describes the following soil characteristics: • The soil is considered *fine grained soils* as described in WQPN 22 (DoW 2008). • Infiltration rate averaged 63 mm/hr and ranged between 24.6 – 106 mm/hr. • The soil is considered moderately permeable based on observed texture and infiltration rate. • Soil moisture content and plant available water averaged 2.9% and 19.2% respectively when sampled at 0.25 m depth • Soils had a median exchangeable sodium percentage (ESP) of 2.2%. • Median phosphorus buffering index was 65 and 70 for 0.25 m and 1 m depths respectively, indicating a low phosphorus sorption category soil.

Aspect	Details
Meteorology	The Bureau of Meteorology and the SILO database offered by the Queensland Department of Environment and Science provided the following information, based on records for the area from 1889 to 2021: • The majority of rainfall in Paraburdoo occurs in summer between January and March. The average annual rainfall was 253.6 mm. • Annual average evaporation was 2,253.8 mm with a daily average of 5.5 mm. • Annualised evapotranspiration was 3,580 mm.
Topography	Both irrigation areas have an approximate slope of 1% falling to the north-west.

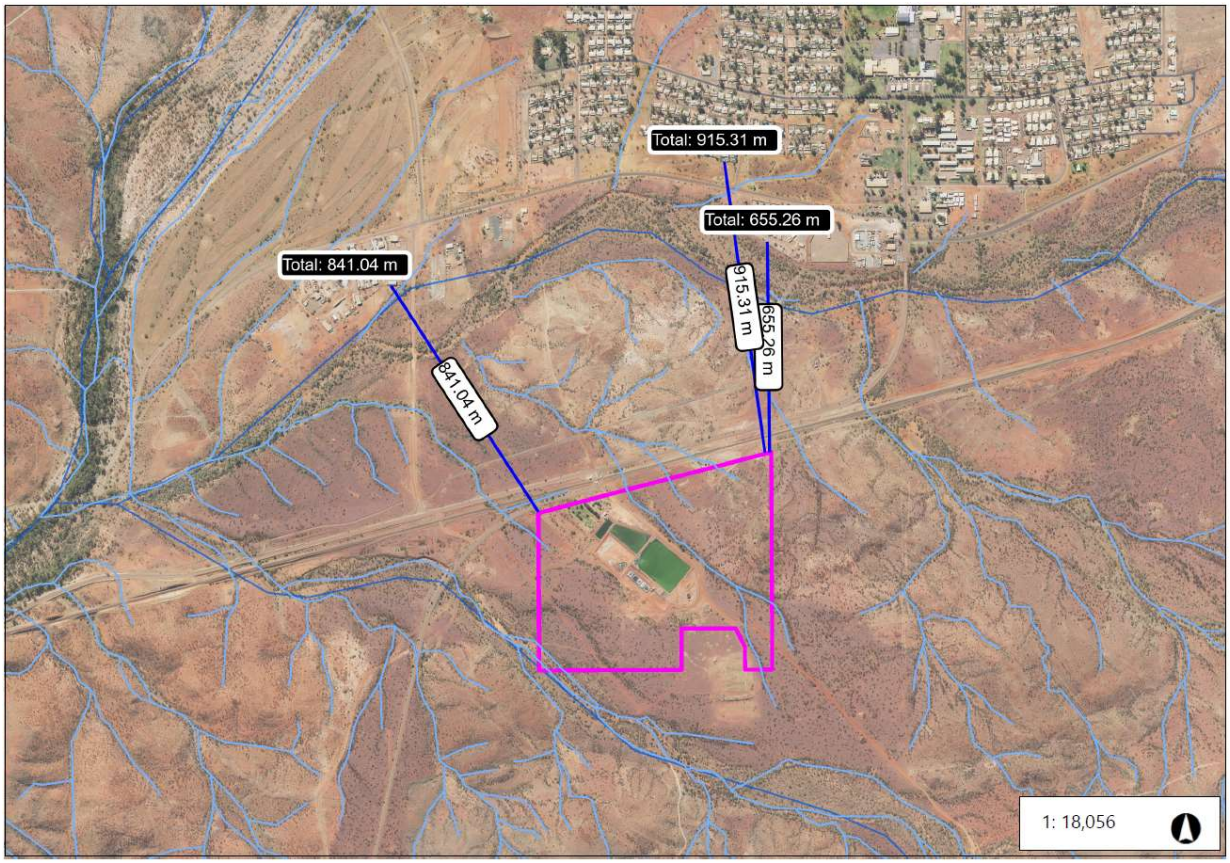

Figure 3: Distance to sensitive receptors. The Premises boundary is shown in pink and surface watercourses are shown by blue lines.

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 and Table 6.

The Revised Licence L6759/1996/12 that accompanies this Amendment Report authorises emissions associated with the construction and commissioning of the proposed amendment and operation of the Premises i.e., Category 54 and 61 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 construction and commissioning of the proposed amendment

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**				
Construction								
Construction and installation of new equipment and infrastructure Vehicle and machinery movements	Dust	Air/windborne pathway causing impacts to health and amenity	Nearest sensitive receptor (1 km northeast)	Refer to Section 3.1.1	C = Slight L = Rare **Low Risk**	Y	N/A	N/A
	Noise			Refer to Section 3.1.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	N/A
Containment loss during upgrade works to discharge infrastructure	Treated wastewater containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Overland flow causing impacts to terrestrial and aquatic ecosystems	On and offsite minor non-perennial watercourses	Refer to Section 3.1.1	Risk event not probable due to Licence Holder's proposed controls: • Discharge diverted to Pond 4 when connecting downgradient infrastructure.		18 - Table 9: Row 5(a)	The Delegated Officer considers that the controls proposed by the applicant will be sufficient to manage the risk associated with treated wastewater during construction and has included this control within the licence as a regulatory control.
Containment loss during upgrade works in the waste pits	Leachate containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Overland flow causing impacts to terrestrial and aquatic ecosystems	On and offsite minor non-perennial watercourses	Refer to Section 3.1.1	Risk event not probable due to Licence Holder's proposed controls: • Waste acceptance ceased and waste removed prior to works.		17 18 - Table 9: Row 2(a) and Row 3(a)	The Delegated Officer considers that the controls proposed by the applicant will be sufficient to manage the risk associated with leachate during construction and has included these controls within the licence as a regulatory control.
		Subsurface seepage causing contamination of soil and groundwater	Underlying soils Groundwater (8 - 10 mBGL)					
Commissioning								
Testing of irrigation infrastructure	Treated wastewater containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Overland flow causing impacts to terrestrial and aquatic ecosystems	On and offsite minor non-perennial watercourses	Refer to Section 3.1.1	Risk event not probable due to Licence Holder's proposed controls: • Commissioning undertaken using potable water.		18 - Table 9: Row 5(f) and Row 6(f)	The Delegated Officer considers that the controls proposed by the applicant will be sufficient to manage the risk associated with treated wastewater during commissioning activities and has included this control within the licence as a regulatory control.
		Subsurface seepage causing contamination of soil and groundwater	Underlying soils Groundwater (8 - 10 mBGL)					
Testing of waste pits	Leachate containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Overland flow causing impacts to terrestrial and aquatic ecosystems	On and offsite minor non-perennial watercourses	Refer to Section 3.1.1	Risk event not probable due to Licence Holder's proposed controls: • Commissioning undertaken using potable water.		18 - Table 9: Row 2(d) and Row 3(e)	The Delegated Officer considers that the controls proposed by the applicant will be sufficient to manage the risk associated with leachate during commissioning activities and has included this control within the licence as a regulatory control.
		Subsurface seepage causing contamination of soil and groundwater	Underlying soils Groundwater (8 - 10 mBGL)					

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. Standard reporting requirements have not been included above.

Table 6: Risk assessment of potential emissions and discharges from the Premises during operation of the proposed amendment

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**				
Operation								
Operation of the aerators in Pond 1	Noise	Air/windborne pathway causing impacts to amenity	Nearest sensitive receptor (1 km northeast)	None specified	C = Slight L = Rare **Low Risk**	Y	N/A	N/A
Treatment of sewage within Pond 1	Odour			Refer to Section 3.1.1	C = Minor L = Unlikely **Medium Risk**	Y	1, 2, 3, 18	The Delegated Officer considers that the controls proposed by the applicant will be sufficient to manage the risk associated with odour during operational activities and has included these controls within the licence as a regulatory control.
Drying of waste within upgraded grease pits and sludge beds								
Bioremediation of oil and grease sludge within the tilling yard								
Containment loss from upgraded grease pits and sludge beds	Leachate containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Overland flow causing impacts to terrestrial and aquatic ecosystems	On and offsite minor non-perennial watercourses	Refer to Section 3.1.1	C = Moderate L = Rare **Medium Risk**	Y	1, 2, 3, 18	The Delegated Officer considers that the controls proposed by the applicant will be sufficient to manage the risk associated with containment loss from the grease pits and sludge beds during operational activities and has included these controls within the licence as a regulatory control.
		Subsurface seepage causing contamination of soil and groundwater	Underlying soils Groundwater (8 - 10 mBGL)		C = Moderate L = Rare **Medium Risk**	Y	1, 2, 3, 18	
Bioremediation of oil and grease sludge within the tilling yard		Overland flow causing impacts to terrestrial and aquatic ecosystems	On and offsite minor non-perennial watercourses		C = Minor L = Rare **Low Risk**	Y	2, 3, 18	The Delegated Officer considers that the controls proposed by the applicant will be sufficient to manage the risk associated with bioremediation activities during operation and has included these controls within the licence as a regulatory control.
		Subsurface seepage causing contamination of soil and groundwater	Underlying soils Groundwater (8 - 10 mBGL)		C = Minor L = Unlikely **Medium Risk**	Y	2, 3, 18	
Containment loss and discharge of treated wastewater to the irrigation sprayfield	Treated wastewater containing contaminants (e.g. nutrients, pathogens, metals, oil and grease)	Overland flow causing impacts to terrestrial and aquatic ecosystems	On and offsite minor non-perennial watercourses	Refer to Section 3.1.1	**Refer to Section 3.3 below**			
		Subsurface seepage causing contamination of soil and groundwater	Underlying soils Groundwater (8 - 10 mBGL)					

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. Standard reporting requirements have not been included above.

3.3 Detailed risk assessment for discharge of treated wastewater via irrigation

3.3.1 Description of risk event

Irrigation using treated wastewater has the potential to cause soil and groundwater contamination where contaminant and hydraulic loading rates exceed the capability for soil buffering and uptake by vegetation within the receiving environment. Contaminants accumulate within soil and may then infiltrate beyond the root-zone of vegetation and enter groundwater. This depends on the extent to which soil microbial processes, sorption and volatilisation are able to remove chemical constituents from soil pore-water. During rainfall events or when soil moisture conditions are high there is an increased potential for this to occur.

3.3.2 Identification and general characterisation of emission

The Applicant proposes to discharge up to 300 m^3/day (109.5 ML/yr) of treated wastewater to two irrigation sprayfields totaling 4.8 ha. This results in a hydraulic loading rate of 62.5 kL/ha/day or 22.8 ML/ha/yr. The expected nutrient concentration and loading rate for the discharge are contained in Table 7 below.

Table 7: Nutrient concentrations and loading rate within treated wastewater discharge to irrigation

Parameter	Typical discharge concentration (mg/L)	Total annual load (kg)	Annual loading (kg/ha/yr)	WQPN 22 Category D Limit (kg/ha/yr)
Total nitrogen	17.76	1944.7	405.2	480
Total phosphorus	4.36	477.4	99.5	120
Total dissolved solids	1,400	153,300	31,938	-
BOD_5	23.75	2601	542	10,950 (30 kg/ha/day)

The irrigation area is comprised of 22 sprinkler points, with 7 located at irrigation area 1 and 15 located at irrigation area 2. Discharge to irrigation will generally occur every day, with two or three spray jets operating at one time for approximately 10 minutes. Following this, the next set of spray jets will operate and the system will sequentially pass through each set of two or three, repeating the sequence where required.

3.3.3 Impact of risk event

Treated wastewater may contain elevated concentrations of nutrients as well as metals, pathogens and oil and grease. During discharges of treated wastewater to land (source) the release of contaminants (emission) by overland flow and subsurface seepage (pathway) may cause adverse impact to aquatic and riparian ecosystem health, surface water quality, contamination of soil and degradation of groundwater quality (adverse impact). Pathogens may also cause impact to human health.

High solids loading and saline treated wastewater may also decrease the permeability and cation exchange capacity of receiving soils. This increases the erodibility of soil and may cause a reduction in water quality at surrounding watercourses due to increased nutrient and sediment transported through surface runoff.

Treated wastewater, if irrigated correctly, should occur at a hydraulic and contaminant loading adequate for the receiving environment to appropriately buffer and uptake, thereby preventing or minimising adverse impacts to the environment.

3.3.4 Criteria for assessment

The following criteria have been used to evaluate the risk associated with the discharge of treated wastewater via irrigation at the Premises:

- Environment – Risk Criteria Table 1 (DER 2017);
- *Guidance Statement: Environmental Siting* (DER 2016);
- *Guidelines for the non-potable uses of recycled water in Western Australia* (DoH 2011)
- *Water Quality Protection Note WQPN 22: Irrigation with nutrient-rich wastewater* (DoW 2008); and
- Minimum land area requirements for irrigation based on hydraulic load, soil conditions and meteorology - Equations 5-1, 8-1 and 10-3 (US EPA 2006).

Nutrient loadings to the irrigation area are calculated using the following equation:

$$N_L = \frac{N \times Q \times 365}{1000 \times A}$$

Where:
- N_L = nutrient loading (kg/ha/yr)
- N = discharge nutrient concentration (mg/L)
- Q = discharge rate of treated wastewater (m^3/day)
- A = land area (hectares)

3.3.5 Key findings

The Delegated Officer has reviewed the information regarding discharge of treated wastewater via irrigation and has found:

1. Based on hydraulic loading, the proposed 4.8 ha irrigation area is large enough to receive the discharge rate of 300 m^3/day proposed by the Licence Holder. A minimum land area requirement of approximately 0.5 ha was determined through equations 5-1, 8-1 and 10-3 of US EPA 2006. The calculations used the soil and meteorology information summarised in Table 4.
2. The irrigation area is sufficiently sized to receive the expected nitrogen, phosphorus and BOD total annual loads shown in Table 7. The total annual loads are below the limits for Category D soil listed in WQPN 22 (DoW 2008) when considering the 4.8 ha total size of the sprayfields.
3. The Licence Holder has proposed to install earthen bunding around the boundary of the two irrigation sprayfields. This will reduce the likelihood for runoff from the irrigation area to occur during rainfall events.
4. The proposed use of sequentially zoned discharge points for the irrigation system will allow for uptake and evaporation to occur within soil and limit the potential for waterlogging of soil to occur.

5. High level alarms, telemetry triggers and automatically activated equipment will reduce the potential for containment loss to occur within discharge infrastructure. Potential overflow events can be detected through the telemetry system and discharge can be diverted to an existing evaporation pond for containment.

3.3.6 Consequence of risk event

The Delegated Officer has determined that based on the siting of the premises, the emissions may cause mid level on-site impacts, low level off-site impacts at a local scale and minimal off site impacts on a wider scale. Therefore, the Delegated Officer considers the consequence of the emissions to be **Moderate**.

3.3.7 Likelihood of risk event

Due to the Applicant's proposed controls, the Delegated Officer considers that the risk event will probably not occur in most circumstances. Therefore, the Delegated Officer considers the likelihood to be **Unlikely**.

3.3.8 Overall rating of risk event

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix contained in the *Guidance Statement: Risk Assessment* (DER 2017) and has determined the overall rating for the risk event to be **Medium**.

Medium risk events are acceptable provided they are subject to some regulatory controls. This generally means the inclusion of outcome-based conditions on the relevant licence. These conditions will be comprised of the Applicant's proposed controls and additional controls imposed by the department.

3.3.9 Regulatory controls

Condition no.	Condition type	Reason
2 - Table 2 (Sewage)	Process specifications for sewage treated at the premises have been included as regulatory controls.	A 30 minute chlorine contact time and an outcome for thermotolerant coliform concentration was specified. The specifications are derived from Licence Holder controls and comments received from the Department of Health.
3 - Table 3 (Irrigation holding tank, chlorinator, pump station and discharge chamber)	Operational requirements for the infrastructure have been included as regulatory controls. The requirements relate to alarm and automatic control systems.	The Delegated Officer considers the alarm, telemetry and automatic activation of equipment to be key infrastructure controls relating to potential containment loss from the discharge infrastructure. The specifications are derived from Licence Holder controls proposed in the Application. A requirement to regularly test the systems has been specified by the department.

Condition no.	Condition type	Reason
3 - Table 3 (Irrigation Area 1 and 2)	Operational requirements for the infrastructure have been included as regulatory controls. The requirements relate to automatic control systems and physical infrastructure.	The Delegated Officer considers the automatic activation of equipment and perimeter barriers to be key infrastructure controls relating to the irrigation of treated wastewater. The specifications are derived from the intended outcome of Licence Holder controls proposed in the Application.
4	Requirements relating to the management of discharge at the irrigation area have been included as regulatory controls.	The Delegated Officer has considered that the standard suite of conditions for management of a wastewater irrigation area are key regulatory controls for the Application. The Licence Holder's proposed procedure to sequentially operate the sprinkler zones has also been listed as a requirement.
5	Emission and discharge limits for the premises have been included as regulatory controls.	The Application and Risk Assessment were conducted on the basis of meeting the requirements for WQPN 22 Category D soil (DoW 2008) and a pathogen concentration of <1,000 CFU/100mL. The loading limits from WQPN 22 have been specified as discharge limits for TN, TP and BOD. The maximum proposed discharge volume of 300 m^3/day has been specified as a loading limit. A concentration limit for pathogens has been specified as <1,000 *E. coli* CFU or MPN /100mL. *E. coli* was chosen as the limiting parameter rather than thermotolerant coliforms as this analyte is already monitored through existing licence conditions. *E. coli* is considered a surrogate for faecal pathogen concentration.
6 and 7	Recovery and containment requirements for spills occurring outside a containment system have been included as regulatory controls.	The Delegated Officer considers the immediate recovery and containment of clean-up material to be key controls relating to emissions and discharges at the Premises. These conditions also relate generally to all potential risk events at the Premises.

Condition no.	Condition type	Reason
9 and 11	Monitoring conditions requiring a specific suite of analytes and stipulations for the required timings have been included as regulatory controls.	The requirement to determine oil and grease concentrations in the effluent has been added to the suite of quarterly monitoring analytes. Oil and grease are considered a relevant contaminant in the treated wastewater due to the potential for liquid from the grease pits to be directed to Pond 1.
18 - Table 9: Row 5	Key specifications for infrastructure relating to the management of potential emissions and discharges from the Premises have been included as construction and installation requirements. Requirements for commissioning of the infrastructure have also been included as regulatory controls.	The Delegated Officer has considered the key features of the infrastructure and equipment proposed to be installed through the Application. These features have been listed as regulatory controls to ensure that the construction of this infrastructure remains consistent with the risk assessment undertaken. The specifications are derived from infrastructure and equipment features proposed by the Licence Holder in the Application. An additional regulatory control requiring an alarm system for the chlorinator has been specified by the department in relation to comments received from the Department of Health.
18 - Table 9: Row 6	Key infrastructure relating to the management of potential emissions and discharges from the Premises have been included as construction and installation requirements. Requirements for commissioning of the infrastructure have also been included as regulatory controls.	The Delegated Officer has considered the key features of the infrastructure and equipment proposed to be installed through the Application. These features have been listed as regulatory controls to ensure that the construction of this infrastructure remains consistent with the risk assessment undertaken. The specifications are derived from infrastructure and equipment features proposed by the Licence Holder in the Application.

4. Consultation

Table 8 provides a summary of the consultation undertaken by the department.

Table 8: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website (18/02/2021)	No comments received.	N/A

Consultation method	Comments received	Department response
Local Government Authority advised of proposal (18/02/2021)	The Shire of Ashburton replied on 20/02/2021 stating that they support the spray field proposal, primarily as it provides a safer environment and precludes the open channel discharge of a partially treated non chlorinated discharge into unprotected public areas. It is identified that the proposed amendment and the additions of the two spray fields, provide an adequate buffer of approximately 1 km from the nearest sensitive land use within the townsite of Paraburdoo.	Noted.
Department of Health (DoH) advised of proposal (18/02/2021)	DoH replied on 24 March 2021 stating that they have no objections to the disposal of treated effluent to land on the prescribed premises subject to: • Sprayfield land application area calculated in accordance with AS 1574. • 40kL holding tank being fitted with a high level audio-visual alarm system. • Holding tank to be bunded to a dedicated sump that can be pumped or diverted to the finishing pond in case of any tank failure. • Holding tank design to ensure a minimum of 30 minutes chlorine contact time. • The chlorination system shall be fail safe (i.e. no chlorine no pumping) and upon failure, it activates the alarm system.	The size of the irrigation area has been considered in the risk assessment contained in Section 3.3. The Delegated Officer considers the irrigation area to be sufficiently sized based on the environmental siting of the premises and the hydraulic and nutrient loading rate proposed by the Licence Holder. The requirement for the holding tank to be fitted with a high level audio-visual alarm has been specified as a construction requirement (condition 18) and as an ongoing operational requirement (condition 3) in the amended licence. The Application does not specify if the holding tank will be provided with a sump and bunding for potential failures. The Delegated Officer considers that the relevant risk event is controlled via other proposed controls and conditions within the amended licence. Conditions 6 and 7 require the immediate clean-up and appropriate disposal of spills outside an engineered containment system. In the event of a failure, flow can also be diverted prior to entering the holding tank. A 30 minute chlorine contact time has been listed as a process

Consultation method	Comments received	Department response
		specification (condition 2) within the amended licence. The Application does not specify if the chlorinator will have a fail-safe activation. The Delegated Officer has specified this as a construction and installation requirement (condition 18 - Table 9: Row 5(b)) within the amended licence.
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal (18/02/2021)	DMIRS replied on 29 March 2021 stating that no material comments on the application are required. Should any changes to Dangerous Goods storage be required this would require an amendment through DMIRS.	Noted.
Department of Jobs, Tourism, Science and Innovation (DJTSI) advised of proposal (18/02/2021)	DJTSI replied on 29 March 2021 stating that they have reviewed the documentation in relation to the relevant State Agreements and advise that they have no objection to the proposed amendment.	Noted.
Licence Holder was provided with draft amendment on (07/04/2021)	Refer to Appendix 1.	Refer to Appendix 1.

5. Conclusion

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

5.1 Summary of amendments

5.1.1 Application

Table 9 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 9: Summary of licence amendments

Condition no.	Proposed amendments
1 (Kitchen grease trap waste)	The proposed method of accepting kitchen grease trap waste into Grease Pit 2 only has been specified as a waste acceptance specification.

Condition no.	Proposed amendments
2 (Sewage)	Disinfection has been included in the process description for sewage. Chlorine contact time and concentrations for faecal pathogens have been included as process specifications.
2 (Kitchen grease trap waste)	Bioremediation has been included in the process description for kitchen grease trap waste. Licence Holder proposed controls have been included as process specifications.
3 - Table 3: Row 4 (Sludge Pits 1 and 2)	The key controls relating to operation of the sludge pit infrastructure have been specified as operational requirements in the infrastructure and equipment table.
3 - Table 3: Row 5 (Grease Pits 1 and 2)	The key controls relating to operation of the grease pit infrastructure have been specified as operational requirements in the infrastructure and equipment table.
3 - Table 3: Row 6 (Tilling Yard)	The key controls relating to operation of the tilling yard infrastructure have been specified as operational requirements in the infrastructure and equipment table.
3 - Table 3: Row 7 (Irrigation holding tank, chlorinator, pump station and discharge chamber)	The key controls relating to operation of the infrastructure have been specified as operational requirements in the infrastructure and equipment table.
3 - Table 3: Row 8 (Irrigation Areas 1 and 2)	The key controls relating to operation of the irrigation infrastructure have been specified as operational requirements in the infrastructure and equipment table.
4	The discharge point for treated wastewater has been changed to the irrigation areas. The key controls relating to management of the discharge to irrigation have been specified.
5	A condition specifying the concentration and loading limits for relevant parameters in the discharge to irrigation has been included.
6	A condition has been added requiring the immediate recovery and disposal of spills outside an engineered containment system.
7	A condition requiring appropriate storage of material used during spill clean-ups under condition 6 has been included.
8	A condition requiring the monitoring of relevant waste inputs and outputs at the premises has been include in accordance with current licensing requirements and format.
9	Oil and grease have been listed in the suite of analytes to be monitored in treated wastewater. The monitoring location has been changed to the irrigation holding tank outlet.

Condition no.	Proposed amendments
11	A condition specifying the number of days that must elapse between the collection of quarterly and 6-monthly samples has been included.
14	Additional reporting requirements for the Annual Environmental Report have been listed in relation to the Application.
17	A condition requiring the cessation of septage and kitchen grease trap waste acceptance at the premises prior to the commencement of works has been added. The Licence Holder can resume the waste acceptance after submission of a compliance report relating to the works.
18	A condition allowing for the construction of the proposed amendment has been included. The condition contains the infrastructure construction and installation requirements considered to be key controls in the risk assessment.
19	A condition requiring the submission of an Environmental Compliance Report for the works conducted under condition 18 has been included.
20	A condition listing the specific requirements of the Environmental Compliance Report required by condition 19 has been included.
Definitions	Applicable definitions relating to the proposed amendment have been included.
Schedule 1: Maps	Figure 1 has been updated to a new figure provided by the Licence Holder. Figure 2 has been included which relates to the proposed works and new site layout.

5.1.2 Consolidation and conversion

Table 10 provides a summary of the licence conditions consolidated and converted in this amendment 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 10: Consolidation of licence conditions and conversion to new format

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Expiry Date: 05 October 2019	Expiry Date: 07 June 2036	In accordance with the Notice of Amendment of Licence Expiry Dates (29/04/2016)
N/A	Prescribed Premises Category table	N/A	Revised to current licensing format with inclusion of assessed design capacity.
N/A	Interpretation	Interpretation section	Revised to current licensing format.
N/A	Definitions	Definitions section - Table 10	Revised to current licensing format and wording.

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Waste acceptance implied through preamble and categories	1	Inclusion of a waste acceptance condition and table in line with current licensing format.
N/A	Waste processing implied through preamble	2	Inclusion of a waste processing condition and table in line with current licensing format.
N/A	Infrastructure and equipment implied through preamble	3	Inclusion of an infrastructure and equipment condition and table in line with current licensing format.
1	Submission of an Annual Environmental Report (AER)	14	Revised to current licensing format and reporting expectations.
2	Submission of an Annual Audit Compliance Report	13	Revised to current licensing format.
3 (i – iv)	Operational requirements for the WWTP	3 - Table 3: Row 2 and 3	Revised to current licensing format and included in the infrastructure and equipment table.
3(v)	Sludge removal in accordance with the biosolids guideline	2 - Table 2 (Septage)	The requirement was revised to the current format and included as a process specification.
4	Discharge point	4	Revised to current licensing format including requirements relating to the Application.
5	Requirement for a flow monitoring device to measure discharge and reporting through the AER	3 – Table 3: Row 7(c)	Requirement to have a discharge flowmeter revised to current licensing format and included in the infrastructure and equipment table.
		9 – Table 7	Requirement to monitor discharge flow volume revised to current licensing format and included in the monitoring table.
		14 – Table 8	Requirement to report flow revised to current licensing format and included in AER reporting requirements table.

Existing condition	Condition summary	Revised licence condition	Conversion notes
6	Monitoring of treated wastewater	9	Revised to current licensing format.
7	Required sampling method	9 – Table 7	Revised to current licensing format where the required method is included in the monitoring table.
8	Requirements for laboratory NATA accreditation	10	Revised to current licensing format.
10	Requirements for sludge removed from the Imhoff tank.	2 – Table 2 (WWTP Sludge)	Removed reference to the Imhoff tank as the infrastructure is redundant and not used. Revised to current licensing format and included in the infrastructure and equipment table.
N/A	Complaints	12	Inclusion of the current licence format standard condition specifying the required actions for complaints received.
N/A	Records	15	Inclusion of the current licence format standard condition specifying the requirements for record keeping.
N/A	Books	16	Inclusion of the current licence format standard condition specifying the requirements for accurate and auditable books.
Attachment 1	Premises map	Schedule 1: Maps	Revised to current licensing format and update of the map.
Attachment 2 Annual Audit Compliance Report	Annual Audit Compliance Report	N/A	Redundant attachment. Deleted from Licence. Current form accessed at www.dwer.wa.gov.au

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. Department of Health (DoH) 2011, *Guidelines for the non-potable uses of recycled water in Western Australia*, Perth, Western Australia.
5. Department of Water (DoW) 2008, *Water Quality Protection Note WQPN 22: Irrigation with nutrient-rich wastewater*, Perth, Western Australia.
6. ERM 2021, *Paraburdoo WWTP – Proposed Irrigation Sprayfield: Soil properties investigation and nutrient modelling*, Unpublished report.
7. US Environmental Protection Agency (US EPA) 2006, *Process design manual, land treatment of municipal wastewater effluents.* Report EPA/625/R-06/016. Accessed at: https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NRMRL&dirEntryId=159124

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

Condition	Summary of Licence Holder's comment	Department's response
Licence		
Condition 1: Table 1	The following waste volumes are estimated to make up the total 1,825 tonnes per annum under Category 61: Septage - estimate 1400 tonnes per annum Kitchen grease trap waste - estimate 425 tonnes per annum	Column 2 of Table 1 has been updated with the information provided by the Licence Holder.
Condition 9: Table 7	Monitoring Location Lat: 23º 12' 45.51000" S Long" 117º 39' 43.96100" E	Noted.
Amendment Report		
Section 2.3: Key Finding 2	A pre-clearance flora and flora survey to satisfy Conditions 7 and 8 of CPS 6110/5 has been scheduled for 26 May 2021.	The Delegated Officer has forwarded the information regarding compliance with CPS 6110/5 to the department's Native Vegetation Regulation Branch. The Key Findings table has been updated with the information provided by the Licence Holder.
Section 3.1: Table 2	Construction hours - 7am to 5pm	Table 2 has been updated with the information provided by the Licence Holder.

Appendix 2: Application validation summary

<table>
<tr><th colspan="6">SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)</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">L6759/1996/12</td></tr>
<tr><td>Relevant works approval number:</td><td></td><td>N/A</td><td>☐</td></tr>
<tr><td colspan="2">Date application received</td><td colspan="4">7 October 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">Pilbara Iron Company (Services) Pty Ltd</td></tr>
<tr><td colspan="2">Premises name</td><td colspan="4">Paraburdoo Wastewater Treatment Plant and Liquid Waste Facility</td></tr>
<tr><td colspan="2">Premises location</td><td colspan="4">Special Lease N104471</td></tr>
<tr><td colspan="2">Local Government Authority</td><td colspan="4">Shire of Ashburton</td></tr>
<tr><td colspan="6">Application documents</td></tr>
<tr><td colspan="2">HPCM file reference number:</td><td colspan="4">DER2014/000866-1~1</td></tr>
<tr><td colspan="2">Key application documents (additional to application form):</td><td colspan="4">Cover letter
Soil samples and loading calculator
RFI response (A1979006)</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">Licence amendment

Operation of a treated wastewater irrigation scheme located within the current premises boundary. The amendment is being sought in order to cease discharge to a creekline where ponding of wastewater provides a potential breeding ground for mosquitos. This has been requested by the Shire of Ashburton. Treated wastewater at the premises is disposed through an evaporation pond and when this is full un-chlorinated treated wastewater is discharged to an ephemeral creekline. The amendment will require:
• Construction of;
○ 2 sprayfields totalling 4.8 ha, containing buried HDPE pipelines, low drift sprinkler nozzles and electrical works.
○ Holding tank (size not specified)
○ Perimeter fencing and signage
○ Tilling yard for bioremediation of oil and grease (commercial kitchen) sludge (nothing is stated about presence of hardstand/containment infrastructure).
• Upgrade to;
○ Pond 1 by installing 2 aerators;
○ Reinstatement of a previous chlorine dosing system;
○ Chlorine retention tank (unsure if existing or need to be installed);
○ K110 waste pits by installing a balancing pipe,</td></tr>
</table>

	manual isolation valve and other upgrades (not specified); ○ K210 waste pits by constructing access ramps, concrete floors, raised rear wall, unloading area and relay overflow pipeline. • Commissioning of; ○ Pumps, pipelines and sprinklers; and ○ Alarms / overflow systems • Operation of; ○ 2 sprayfields totalling 4.8 ha receiving treated wastewater discharges of 300 m^3/day. ○ A tilling yard/bioremediation 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 (amendments only)
Category 54: sewage facility	900 m^3/day	No change proposed
Category 61: liquid waste facility	1,825 tonnes per annual period	No change proposed

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: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ☐ No ☒	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ☒ No ☐	Certificate of title ☐ General lease ☐ Expiry: Mining lease / tenement ☒ Expiry: 31/03/2033 Other evidence ☐ Expiry:
Has the applicant obtained all relevant planning approvals?	Yes ☐ No ☒ N/A ☐	Approval: States that it is awaiting DoH approval. The area is covered by a State Agreement Act, Expiry date: If N/A explain why?

Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes ☒ No ☐	CPS No: 6110
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 Not a controlled catchment.
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: GWL 109318
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ☒ No ☐	Name: Pilbara Surface and Groundwater Areas Type: Proclaimed Groundwater Area and Surface Water Area Has Regulatory Services (Water) been consulted? Yes ☒ No ☐ N/A ☐ Regional office: North West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes ☐ No ☒	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 ☐	*Dangerous Goods Safety Act 2004* – Placard load of chlorine gas (>50L - <500L)
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ☐ No ☒	
Is the Premises subject to any EPP requirements?	Yes ☐ No ☒	
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