



## Application for Licence Amendment

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

**Licence Number** L7811/2002/4  
**Licence Holder** William Richard Cocking  
**Application number** APP-0033891  
**Premises** Wourie Pool Farm  
Mogumber-Yarawindah Road  
MOGUMBER WA 6506

Legal description

Lot Number	Plan/Diagram Number	Volume	Folio
893	Plan 3194	1731	684
905	Plan 3377		
84	Deposited Plan 228035		
143	Deposited Plan 228037		
364	Deposited Plan 246404		
462	Deposited Plan 246401		
463	Deposited Plan 246402		
479	Deposited Plan 246411		
499	Deposited Plan 246403		
748	Deposited Plan 249565		
794	Deposited Plan 249585		
795	Deposited Plan 249586		
796	Deposited Plan 249587		
797	Deposited Plan 249588		
841	Deposited Plan 249608		
803	Deposited Plan 412147	2975	283
804	Deposited Plan 412147		284
1159	Diagram 5041	1537	826
1248	Diagram 5318		827
52	Plan 22293	2141	425
20	Deposited Plan 424526	4069	660
21	Deposited Plan 424526	4069	661
22	Deposited Plan 424526	4069	662
22	Deposited Plan 402744	2882	713

**Date of Report** 22 June 2026  
**Decision** Revised licence granted

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## 1. Decision summary

This amendment report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the premises.

The delegated officer has granted revised licence L7811/2002/4.

Previous decision or amendment reports relating to the licence will remain on the Department of Water and Environmental Regulation (the department) website for future reference and will act as a record of the delegated officer's decision making.

## 2. Scope of assessment

### 2.1 Regulatory framework

In amending the licence, the delegated officer has considered and given due regard to the regulatory framework of the department and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

### 2.2 Amendment summary

Licence L7811/2002/4 is held by William Richard Cocking (licence holder) for Wourie Pool Farm (the premises), located at Mogumber-Yarawindah Road, Mogumber.

The premises relates to the category and the assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in licence L7811/2002/4.

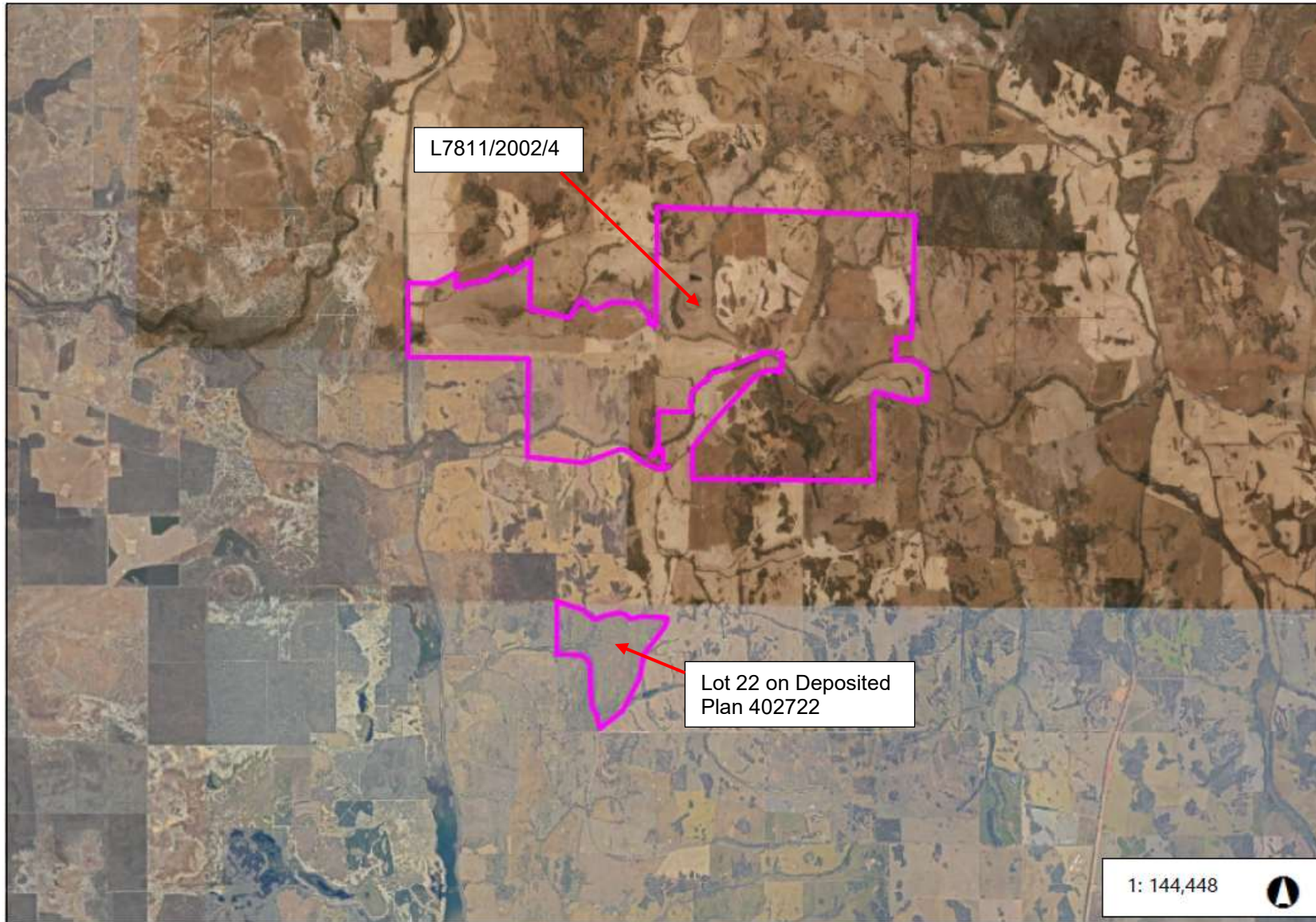
On 9 February 2026 the licence holder applied to amend licence L7811/2002/4 under section 59B of the *Environmental Protection Act 1986* (EP Act). The amendment is in relation to the addition of Lot 22 on Deposited Plan 402744 to the premises (Figure 1).

A second amendment was requested for the application of activated sludge, in emergency situations, direct to land at all lots licensed under L7811/2002/4. The Water Corporation has noted the sludge is classified as P4C2, which does not abide by the requirements of the *Western Australian guidelines for biosolids management* (DEC, 2012) (Biosolids Guidelines). Any emergency use would be subject to strict controls to protect the environment and public health. These controls would include incorporating the sludge into soil within 6–24 hours of application, limiting application to low-risk paddocks that meet the most conservative biosolids acceptance criteria, and implementing stringent stockpile management practices focused on containment, odour minimisation and vector control. The Water Corporation advised on 24 March 2026 that they wish to withdraw this portion of the amendment, therefore the application of activated sludge to land will not be assessed in this amendment report.

This amendment maintains the previously assessed production capacity which continues to apply under the revised licence for category 61A without any changes. Table 1 below outlines the approved production capacity.

**Table 1: Approved premises production capacity**

Prescribed premises category description	Approved production capacity
Category 61A: Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.	50,000 tonnes per annual period



**Figure 1: Premises boundary**

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## 3. Legislative context

### 3.1 Environmental Protection (Clearing of Native Vegetation) Regulations 2004

The applicant intends on applying biosolids over current agricultural lands, which does not include clearing additional native vegetation.

### 3.2 Environmental Protection (Controlled Waste) Regulations 2004

The *Environmental Protection (Controlled Waste) Regulations 2004* identify licensing and transportation requirements for controlled waste substances. Substances which are identified as controlled wastes under the regulations include non-spadeable biosolids. Any required Controlled Waste licenses must be obtained from the department prior to operation of the Premises. The transport of spadeable biosolids does not require a Controlled Waste licence.

### 3.3 Department of Health

Biosolids are included in the Memorandum of Understanding for Wastewater Services and Groundwater Replenishment (MoU) between the Water Corporation and Department of Health (DoH). The MoU is designed to establish and maintain a strong cooperative relationship between the Water Corporation and DoH for protecting public health associated with wastewater services. This ensures services meet health, environmental and social expectations. Under section 10 and Binding Protocol 1 of the MoU, the Water Corporation is obliged to manage biosolids quality as per the Biosolids Guidelines.

Prior to application of biosolids DoH approval is sought, providing specific biosolids application rates for each paddock.

### 3.4 Occupational Safety and Health

Transport and farm operators involved in the land application program are educated about the potential health risks from contact with biosolids. All operators will wear appropriate personal protective equipment and follow proper hygiene procedures. Transport operators will also ensure that trailers are cleaned by high pressure hose after tipping to ensure that no biosolids are transferred onto public roads.

## 4. Review of environmental factors

On behalf of the licence holder, the Water Corporation conducted a Review of Environmental Factors (2026) (REF) in accordance with the Biosolids Guidelines for Lot 22 to determine suitability of the land to receive biosolids. The application of biosolids to land is considered beneficial when the application rate of nutrients in the biosolids is compatible with the nutrient requirements of the vegetation, crop or pasture growing on the land.

### 4.1 Lot 22 soil analysis

The soils of the receiving land are sampled and analysed prior to biosolids application, to determine background nutrient levels and heavy metal concentrations. This data is then added to the nutrient levels and heavy metal concentrations of the biosolids coming from the wastewater treatment plants, to determine if the combined levels meet or exceed the maximum permissible soil contaminant concentration levels.

Soil sampling was conducted within Lot 22 to determine the soil acceptance data of that paddock (Table 2).

**Table 2: Soil sampling chemical analysis**

Parameter	Units	Reporting Limit	Lot 22
% Moisture	%w/w	1	1.8
pH (CaCl <sub>2</sub> )	pH Units	0	5.1
Phosphorus, P	mg/kg	10	300
Arsenic, As	mg/kg	1	2
Cadmium, Cd	mg/kg	0.3	<0.3
Copper, Cu	mg/kg	0.5	6.3
Lead, Pb	mg/kg	1	9
Nickel, Ni	mg/kg	0.5	2.0
Zinc, Zn	mg/kg	2	12
Mercury	mg/kg	0.05	<0.05
Hexavalent Chromium, Cr <sup>6+</sup>	mg/kg	0.5	<0.5
PRI (1:20)	mL/g	1	17.07
Phosphorous (Colwell)	mg/kg	1	30
Cation Exchange Capacity	meq/100g	0.01	5.9
Reactive Iron	mg/kg	1	1100
Clay (0.002mm)	%w/w	1	<1
Bulk Density	kg/L	0.1	1.6
Organic Matter	%w/w	0.1	5.9
PFOA	µg/kg	0.1	<0.1
PFOS +PFH <sub>x</sub> S	µg/kg	0.1	<0.1

The soil analytes at Lot 22 are below the maximum allowable soil contaminant concentrations (MASCC) for arsenic, lead, mercury and nickel as shown in Table 3 and the pH is greater than 4.5, and therefore suitable. PFOA and PFOS + PFH<sub>x</sub>S were below the limits of detection.

**Table 3: Maximum allowable soil contaminant concentrations of Lot 22**

Contaminant	Units	MASCC	Lot 22
Arsenic	mg/kg	20	2
Lead	mg/kg	200	9
Mercury	mg/kg	1	0.025
Nickel	mg/kg	60	2
PFOA	µg/kg	1,840	<0.1
PFOS + PFH <sub>x</sub> S	µg/kg	6.4	<0.1

An important consideration for site selection is the ability of soil to immobilise phosphorus. The Biosolids Guidelines provide a soil ranking system to determine suitable soils for biosolids application. Where the receiving soils are categorised between one and four, biosolids application may be conducted based on the nitrogen requirements of the plants. Soils in category five should not be used for biosolids application unless the application rate is limited to the phosphorus uptake of the plant. Lot 22 is ranked as Category 3; suitable (Table 4).

**Table 4: Soil phosphorus ranking of Lot 22**

Parameter	Lot 22
PRI	17.1
Colwell P (mg/kg)	30
Agronomic demand for P	Moderate
Reactive Fe	1100
Category	3
Risk of P leaching	Low

The contaminant grade of biosolids is found by comparing the biosolid analyses with the contaminant acceptance concentration threshold. Water Corporation biosolids are classed as contaminant grade C2.

Biosolid cake from Woodman Point Water Resource Recovery Facility (WRRF) and Beenyup WRRF undergo a mesophilic anaerobic digestion treatment process to reduce pathogen levels. Biosolids from Subiaco WRRF are treated by the addition of lime to reduce pathogen levels and produce lime-amended biosolids (LAB). Both biosolids types are classified as pathogen grade P3.

## 4.2 Phosphorus, nitrogen or contaminant limited application rate

Biosolids application rates are calculated to meet the nutrient demand for the proposed crop without providing excess nutrients or other contaminants that may otherwise leach into the environment.

The quantity of biosolids per hectare that can be applied directly to land is restricted by either the phosphorus limited biosolids application rate (PLBAR), the nitrogen limited biosolids application rate (NLBAR) or the contaminant limited application rate (CLBAR).

The maximum allowable biosolids application rate is the lower rate of the NLBAR, PLBAR or CLBAR. When the soil type is shown to have a soil category of 1 to 4, the PLBAR may be excluded from the application rate calculations. As noted in Table 4, Lot 22 is ranked category 3, so PLBAR is not applicable to the calculation.

Table 5 outlines the NLBAR application rates and Table 6 outlines the CLBAR application rates calculated for Lot 22 assuming an initial crop of canola.

**Table 5: NLBAR rates for biosolid types**

Biosolid type	NLBAR (dry tonnes/ha) <sup>1</sup>
Cake	10
LAB	28

Note 1: Assuming a target yield of 5 tonnes/ha for wheat and 2 tonnes/ha for canola

**Table 6: CLBAR rates for biosolid types**

Contaminant	Cake (dry tonnes/ha)	LAB (dry tonnes/ha)
Cadmium	542	770
Chromium VI	4200	4200
Copper	316	394
Zinc	58	74
PFOA	4569	5940
PFOS +PFHxS	424	1903

Zinc is the limiting contaminant for biosolids cake and lime-amended biosolids. As nitrogen is the limiting factor for cake and LAB, the contaminant limit is not applicable as it won't be exceeded.

### 4.3 Biosolids application rates

Cake will be applied to Lot 22 at the NLBAR of 10 dry tonnes/ha and LAB will be applied at 28 dry tonnes/ha (Table 7). Biosolid rates may vary slightly throughout the year due to expected changes in treatment plant performance however this is not expected to be significant with historical application rates ranging between 8 – 10 dry tonnes/ha for cake and 19 – 23 dry tonnes/ha for LAB.

**Table 7: Lot 22 application rates**

Lot 22	Cake	LAB
Dry tonnes/ha	10	28
Approx. wet tonnes/ha	54	95
Application area (ha)	187.6	
Approx. wet tonne total	10120	17856

The approximate total treatable area at Lot 22 farm is 187.6 hectares allowing a total application of 10,120 wet tonnes of cake or 17,856 wet tonnes of LAB.

#### Key Findings:

The Delegated Officer will consider impacts of PFAS in biosolids during an upcoming review of the licence, to ensure consistent decision making across the full scope of the premises and in line with other licensed biosolids premises.

## 5. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

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## 5.1 Source-pathways and receptors

### 5.1.1 Emissions and controls

The key emissions and associated actual or likely pathways during premises operation which have been considered in this amendment report are detailed in Table 8 below. The control measures the licence holder has proposed to assist in controlling these emissions, where necessary are also detailed in Table 8 and depicted in Figure 2.

**Table 8: Proposed licence holder controls**

Sources	Emission	Potential pathways	Proposed controls
<b>Operation</b>			
Storage and application of biosolids to Lot 22	Noise	Air/windborne pathway	<ul style="list-style-type: none"> <li>• Buffers of 100 m around residential dwellings located within the prescribed premises for the exclusion of biosolids application.</li> </ul>
	Dust		<ul style="list-style-type: none"> <li>• Buffers of 1000 m around residential dwellings on neighbouring properties, unless written agreement is obtained to implement a smaller buffer, extending into the prescribed premises for the exclusion of biosolids application.</li> </ul>
	Odour		<ul style="list-style-type: none"> <li>• Biosolids are applied in a moist state therefore dust generation is mitigated.</li> <li>• Biosolids are not spread during inclement weather when odour emissions may increase.</li> <li>• If an odour complaint is received an investigation will occur and relevant measures will be implemented.</li> </ul>
	Pathogens including <i>E. coli</i> and helminths	Air/windborne pathway Physical movement of pathogens by vectors	<ul style="list-style-type: none"> <li>• Biosolids will be limited to pathogen grade P3.</li> <li>• Buffer of 50 m around animal enclosures for the exclusion of biosolids application.</li> <li>• The premises is fenced with signage to indicate the storage and application of biosolids.</li> </ul>
	Vectors including flies, mosquitoes and rodents	Air/windborne pathway Physical movement of pathogens by vectors	<ul style="list-style-type: none"> <li>• Biosolids will be spread within 30 days of receipt.</li> <li>• Where the 30-day target is not logistically possible, i.e. due to the paddock being in crop, harvesting or seeding operations, inclement weather or equipment failure, the following stockpile management protocols will be implemented:                             <ul style="list-style-type: none"> <li>○ Flystrike inspections will be undertaken by the farmer or Water Corporation between October to May and monthly during the remainder of the year; and</li> </ul> </li> </ul>

Sources	Emission	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> <li>○ Where fly larvae or fly pupae are found in a stockpile, spreading will be initiated within one day of detection. If flystrike is detected and spreading is not possible, the stockpile will be treated with insecticide.</li> </ul>
	Excess nutrients including nitrogen and phosphorus	Direct discharge to land	<ul style="list-style-type: none"> <li>• Biosolids will be limited to contaminate grade C2.</li> <li>• Soils within Lot 22 had a phosphorus retention index of 17.1, which rates as a low risk of phosphorus leaching in accordance with the Biosolids Guideline.</li> <li>• Application of biosolids relative to the NLBAR calculation rate of 10 dry tonnes/ha of cake and 28 dry tonnes/ha of LAB.</li> <li>• Reapplication checks are conducted prior to the application of biosolids for individual paddocks to ensure soil contamination has not occurred from previous biosolids applications.</li> </ul>
	Contaminated stormwater runoff	Overland runoff, subsurface seepage	<ul style="list-style-type: none"> <li>• Biosolids application will not occur during rainfall events or when heavy rains are forecast.</li> <li>• All dams influenced by surface runoff will have 100m buffers from the high-water mark on the upslope side and intermittent flow creeks will have 50m buffers.</li> <li>• Buffer of 50 m around intermittent water courses.</li> <li>• Slopes &gt;12% will be excluded from biosolids application.</li> <li>• Biosolids will be stored on flat ground with a gradient &lt;3% on areas suitable for biosolids application.</li> <li>• Biosolids will be spread within 30 days of receipt.</li> <li>• Where the 30-day target is not logistically possible, i.e. due to the paddock being in crop, harvesting or seeding operations, inclement weather or equipment failure, the following stockpile management protocols will be enacted: <ul style="list-style-type: none"> <li>○ an earthen bund will be constructed around the storage area, including diversion drains on the upslope side if inclement weather is expected.</li> </ul> </li> </ul>



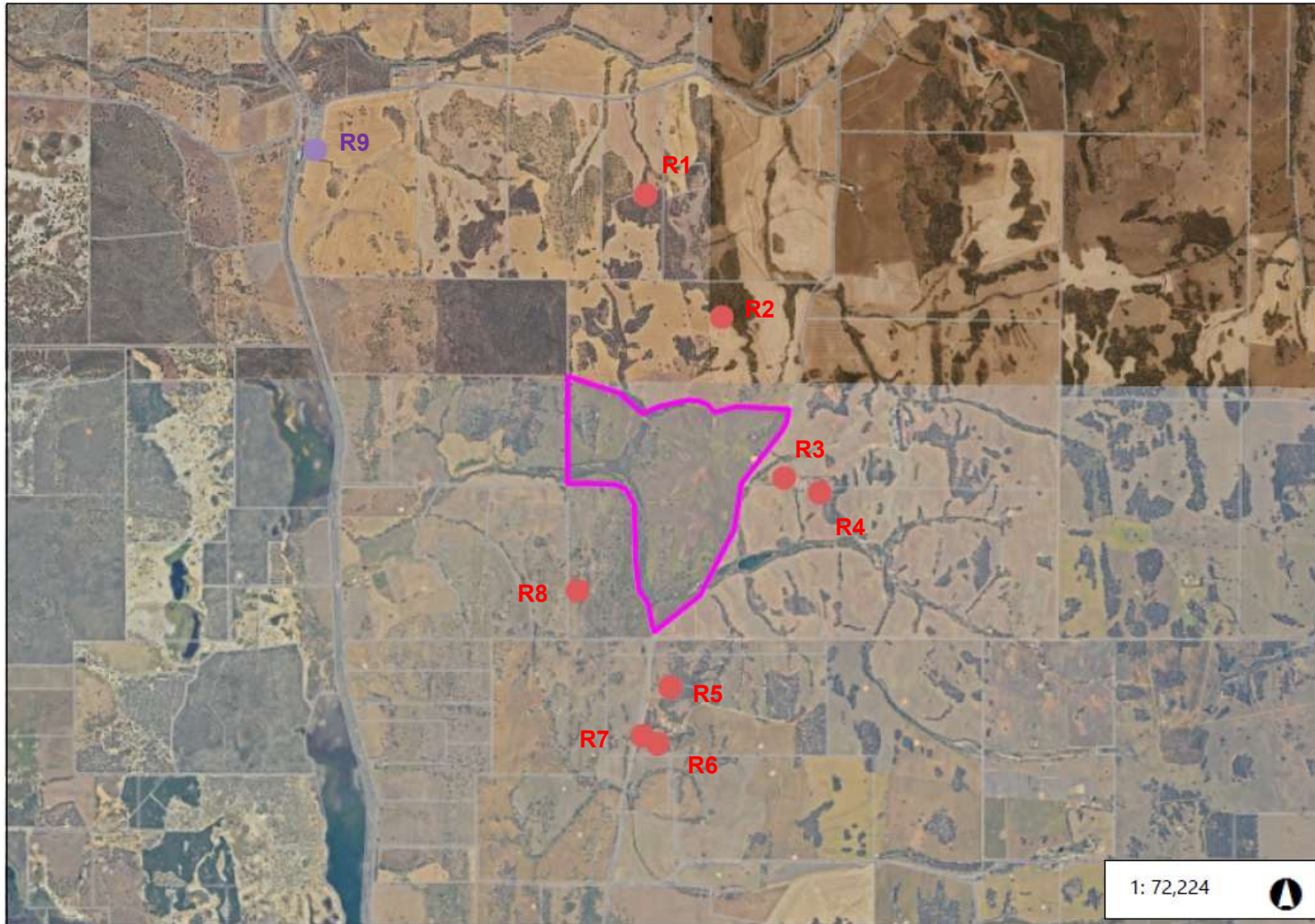
### 5.1.2 Receptors

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

Potential human receptors that may be impacted as a result of activities upon, or emissions and discharges from the prescribed premises are identified in Table 9 and Figure 3, in accordance with the *Guideline: Environmental siting* (DWER 2020).

**Table 9: Sensitive human receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Residential homesteads	Residential homestead located 2145 km north of the premises boundary (R1)
	Residential homestead located 945 m north of the premises boundary (R2)
	Residential homestead located 325 m east of the premises boundary (R3)
	Residential homestead located 725 m east of the premises boundary (R4)
	Residential homestead located 660 m west of the premises boundary (R5)
	Residential homestead located 1125 m south of the premises boundary (R6)
	Residential homestead located 1200 m south of the premises boundary (R7)
	Residential homestead located 620 m west of the premises boundary (R8)
Residential subdivision	Residential subdivision located 3.5 km north west of the premises boundary (R9)



**Figure 3: Distance to sensitive residential receptors**

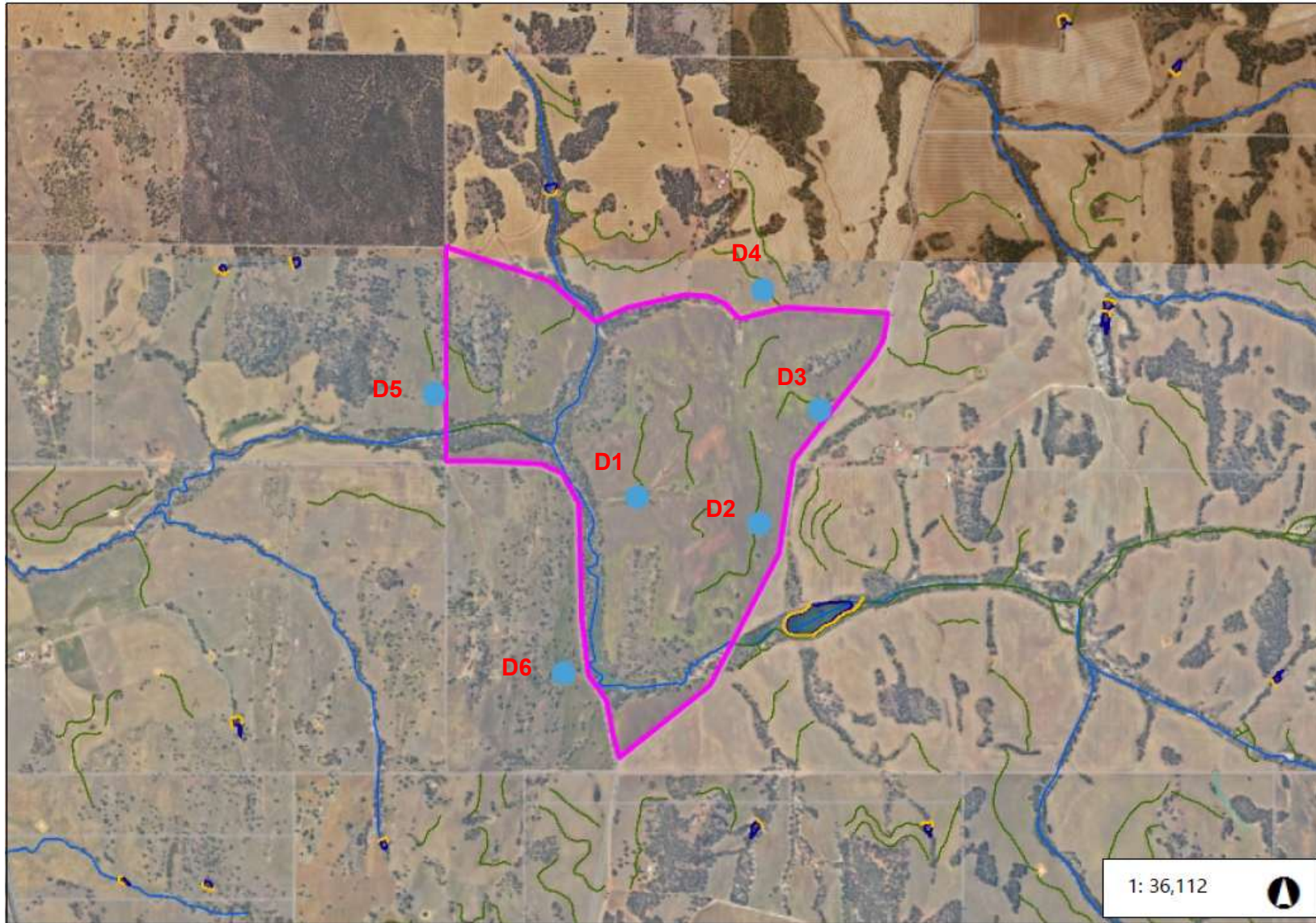
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Potential environmental receptors that may be impacted as a result of activities upon, or emissions and discharges from the prescribed premises are identified in Table 10 and Figure 4, in accordance with the *Guideline: Environmental siting* (DWER 2020).

**Table 10: Sensitive environmental receptors and distance from prescribed activity**

Environmental receptors	Distance from prescribed activity
Threatened and priority fauna <sup>1</sup>	Six occurrences of an endangered bird species and four occurrences of a Priority 4 bird species have been located within the premises boundary.
Native vegetation	Pockets of remnant native vegetation exist within the premises boundary.
	Extensive native vegetation within an adjacent lot, to the north west of the premises boundary.
<i>Rights in Water and Irrigation Act 1914</i> (RIWI Act) - Groundwater Areas	The Gingin Groundwater Area is located 2.4 km west of the premises boundary
Underlying groundwater (non-potable purposes) <sup>2</sup>	<p>Lot 22 is underlain by fractured rock aquifers. The lack of connectivity between groundwater resources limits the potential impacts to others by movement of contaminants through groundwater.</p> <p>DWER data indicates that there are no licensed water extraction bores within the property. There is one private bore located on Jindabyne farm, 540 m east of Lot 22.</p> <p>Static water levels from DWER bores in the area range from 1.6 m to 18 m.</p>
Surface water tributaries, hydrography	A non-perennial water course runs through the southern edge of the premises boundary
	A non-perennial water course runs north-south, through the centre of the premises.
	A number of drainage lines run through the premises.
Agricultural dams	Three dams for agricultural use are located within the premises boundary (D1, D2, D3).
	One dam for agricultural use is located 90 m north of the premises boundary (D4).
	One dam for agricultural use is located 35 m west of the premises boundary (D5).
	One dam for agricultural use is located 100 m west of the premises boundary (D6).

Note 1: Data obtained from the Department of Biodiversity, Conservation and Attractions database search on 02/04/2026.



**Figure 4: Distance to sensitive environmental receptors**

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## 5.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and considers potential source-pathway and receptor linkages as identified in Section 5.1. 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 5.1), 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 11.

The revised licence L7811/2002/4 that accompanies this amendment report authorises emissions associated with the operation of the premises.

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

**Table 11. Risk assessment of potential emissions and discharges from the premises during operation**

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for regulatory controls
Sources / activities	Potential emissions	Potential pathways and impact	Receptors	Licence holder's controls				
<b>Operation</b>								
Storage and application of biosolids to Lot 22 for: a) 7 days or less between 1 October to 31 May, and b) 30 days or less between 1 June to 30 September	Noise	<b>Pathway:</b> Air/windborne pathway <b>Impact:</b> Health and amenity	Sensitive receptors (R2, R3, R4, R5, R8)	Refer to Section 5.1	C = Slight L = Unlikely <b>Low Risk</b>	Yes	Conditions 7, 8, 9 and 11	The Delegated Officer considers the distance to sensitive residential receptors will mitigate impacts from noise emissions. Unreasonable emissions of noise will be regulated under the <i>Environmental Protection (Noise) Regulations 1997</i> .
	Dust	<b>Pathway:</b> Air/windborne pathway <b>Impact:</b> Health and amenity, surface water quality	Sensitive receptors (R3, R5, R8) Beneficial uses of surface water	Refer to Section 5.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Yes	Conditions 2, 3, 7, 8, 9 and 11	The Delegated Officer considers the distance to sensitive residential receptors will mitigate impacts from dust emissions. Unreasonable emissions of dust will be regulated under the general provisions of the EP Act.
	Odour	<b>Pathway:</b> Air/windborne pathway <b>Impact:</b> Health and amenity	Sensitive receptors (R2, R3, R4, R5, R8)	Refer to Section 5.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Yes	Conditions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11	The Delegated Officer considers the licence holder's controls will mitigate impacts from odour emissions. Existing licence conditions are sufficient to regulate odour emissions. Any additional unreasonable emissions of odour will be regulated under the general provisions of the EP Act.
	Pathogens including <i>E. coli</i> and helminths	<b>Pathway:</b> Air/windborne pathway, physical movement of pathogens by vectors <b>Impact:</b> Human health and amenity, cattle health	Sensitive receptors (R2, R3, R4, R5, R8)	Refer to Section 5.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Yes	Conditions 1, 2, 3, 4, 5, 6, 8, 9, 10 and 11	The Delegated Officer considers the licence holder's controls will mitigate impacts from pathogens. Existing licence conditions are sufficient to regulate emissions of pathogens.
	Vectors including flies, mosquitoes and rodents	<b>Pathway:</b> Air/windborne pathway, physical movement of pathogens by vectors <b>Impact:</b> Human health and amenity	Sensitive receptors (R1, R2, R3, R4, R5, R6, R7, R8, R9)	Refer to Section 5.1	C = Moderate L = Possible <b>Medium Risk</b>	Yes	Conditions 2, 3, 7, 8, 9, 10 and 11	The Delegated Officer considers the licence holder's controls will mitigate impacts from vectors. Existing licence conditions are sufficient to regulate emissions of vectors.
	Excess contaminants and nutrients including nitrogen and phosphorus	<b>Pathway:</b> Direct discharge to land <b>Impact:</b> Terrestrial ecosystems, water quality and aquatic ecosystems	Beneficial uses of surface water and groundwater	Refer to Section 5.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Yes	Conditions 1, 2, 3, 4, 5, 6, 8, 9, 10 and 11	The Delegated Officer considers the licence holder's controls will mitigate impacts from excess nutrients. Existing licence conditions are sufficient to regulate emissions of nutrients.

Risk events					Risk rating <sup>1</sup>	Licence holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for regulatory controls
Sources / activities	Potential emissions	Potential pathways and impact	Receptors	Licence holder's controls	C = consequence L = likelihood			
		Infiltration through soil to groundwater causing impacts to groundwater quality and downgradient receptors						
Storage and application of biosolids to Lot 22 for: a) 7 days or less between 1 October to 31 May, and b) 30 days or less between 1 June to 30 September	Contaminated stormwater runoff	<b>Pathway:</b> Overland runoff, subsurface seepage <b>Impact:</b> Ecosystem disturbance or impact to surface water and groundwater quality	Beneficial uses of surface water and groundwater	Refer to Section 5.1	C = Moderate L = Possible <b>Medium Risk</b>	No	Conditions 2, 3 and 10	The Delegated Officer considers the licence holder's controls will mitigate impacts from contaminated stormwater runoff.  Existing licence conditions are sufficient to regulate emissions of contaminated stormwater.  It is noted the licence holder's control is to implement a 100 m buffer from the high-water mark on the upslope side only of dams influenced by surface water runoff. Existing licence conditions require a buffer of 100 m from the high-water mark around all agricultural dams, not limited to the upslope side, which is consistent with the Biosolids Guidelines. The licence holder is advised to be aware of this requirement.
Storage of biosolids at the Premises for: a) more than 7 days between 1 October to 31 May, and b) more than 30 days between 1 June to 30 September	Odour	<b>Pathway:</b> Air/windborne pathway <b>Impact:</b> Health and amenity	Sensitive receptors (R2, R3, R4, R5, R8)	Refer to Section 5.1	C = Moderate L = Possible <b>Medium Risk</b>	Yes	Conditions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11 <b>Condition 11</b>	The Delegated Officer considers the licence holder's controls will mitigate impacts from odour emissions.  Existing licence conditions are sufficient to regulate odour emissions.  Any additional unreasonable emissions of odour will be regulated under the general provisions of the EP Act.  The Delegated Officer notes the annual report does not include reporting when storage exceeds 30 days, therefore has included this requirement.
	Pathogens including <i>E. coli</i> and helminths	<b>Pathway:</b> Air/windborne pathway, physical movement of pathogens by vectors <b>Impact:</b> Human health and amenity, cattle health	Sensitive receptors (R2, R3, R4, R5, R8)	Refer to Section 5.1	C = Moderate L = Unlikely <b>Medium Risk</b>	No	Conditions 1, 2, 3, 4, 5, 6, 8, 9, 10 and 11 <b>Condition 2, 11</b>	The Delegated Officer considers that mitigation measures are required to ensure pathogen regrowth has not occurred in biosolids stored in excess of 30 days. Additional regulatory controls have been applied to the licence requiring monitoring of pathogens in stockpiles stored for more than 30 days, in accordance with Appendix 5 of the Biosolids Guidelines.  The Delegated Officer notes the annual report does not include reporting when storage exceeds 30 days, therefore has included this requirement.

Risk events					Risk rating <sup>1</sup>	Licence holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for regulatory controls
Sources / activities	Potential emissions	Potential pathways and impact	Receptors	Licence holder's controls	C = consequence L = likelihood			
Storage of biosolids at the Premises for: a) more than 7 days between 1 October to 31 May, and b) more than 30 days between 1 June to 30 September	Excess contaminants and nutrients including nitrogen and phosphorus	<b>Pathway:</b> Direct discharge to land <b>Impact:</b> Terrestrial ecosystems, water quality and aquatic ecosystems Infiltration through soil to groundwater causing impacts to groundwater quality and downgradient receptors	Beneficial uses of surface water and groundwater	Refer to Section 5.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Yes	Conditions 1, 2, 3, 4, 5, 6, 8, 9, 10 and 11 <b>Condition 11</b>	The Delegated Officer considers the licence holder's controls will mitigate impacts from excess nutrients. Existing licence conditions are sufficient to regulate emissions of nutrients. The Delegated Officer notes the annual report does not include reporting when storage exceeds 30 days, therefore has included this requirement.
	Vectors including flies, mosquitoes and rodents	<b>Pathway:</b> Air/windborne pathway, physical movement of pathogens by vectors <b>Impact:</b> Human health and amenity	Sensitive receptors (R1, R2, R3, R4, R5, R6, R7, R8, R9)	Refer to Section 5.1	C = Moderate L = Possible <b>Medium Risk</b>	Yes	Conditions 2, 3, 7, 8, 9, 10 and 11 <b>Condition 11</b>	The Delegated Officer considers the licence holder's controls will mitigate impacts from vectors. Existing licence conditions are sufficient to regulate emissions of vectors. The Delegated Officer notes the annual report does not include reporting when storage exceeds 30 days, therefore has included this requirement. The licence holder is advised that the Biosolids Guidelines requires the DoH and the local government to be advised in the event of flystrike.
	Contaminated stormwater runoff	<b>Pathway:</b> Overland runoff, subsurface seepage <b>Impact:</b> Ecosystem disturbance or impact to surface water and groundwater quality	Beneficial uses of surface water and groundwater	Refer to Section 5.1	C = Moderate L = Possible <b>Medium Risk</b>	No	Conditions 2, 3 and 10	The Delegated Officer considers the licence holder's controls will mitigate impacts from contaminated stormwater runoff. Existing licence conditions are sufficient to regulate emissions of contaminated stormwater. It is noted the licence holder's control is to implement a 100 m buffer from the high-water mark on the upslope side only of dams influenced by surface water runoff. Existing licence conditions require a buffer of 100 m from the high-water mark around all agricultural dams, not limited to the upslope side, which is consistent with the Biosolids Guidelines. The licence holder is advised to be aware of this requirement.

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

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

## 6. Consultation

Table 12 provides a summary of the consultation undertaken by the department.

**Table 12: Consultation**

Consultation method	Comments received	Department response
Advice sought from DoH, on 26/02/2026 and 09/04/2026	The DoH responded on 09/04/2026 advising they have not yet received an application to apply biosolids to Lot 22.	The Delegated Officer will proceed with the assessment and advise the licence holder of this requirement for DOH approval.
Shire of Victoria Plains advised of proposal on 13/04/2026.	See Appendix 1	See Appendix 1
Licence holder was provided with draft documents on 28/05/2026.	See Appendix 2	See Appendix 2

## 7. Conclusion

Based on the assessment in this amendment report, the delegated officer has determined that a revised licence L7811/2002/4 will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

### 7.1 Summary of amendments

Table 13 provides a summary of the proposed amendments and will act as a record of implemented changes. All proposed changes have been incorporated into the revised licence as part of the amendment process.

**Table 13: Summary of licence amendments**

Condition	Previous condition	Amendments
Front page	Front page	Addition of Lot 22 on Deposited Plan 402744. Redescribed Lot 127 to accurately reflect current lot numbers 20, 21 and 22 on Deposited Plan 424526.
Condition 2	Condition 2	Addition of the requirement to resample for pathogen growth where biosolids are stored for longer than 30 days, during both summer and winter periods.
Condition 3	Condition 3	Modification of wording to delete 'for' and insert 'prior to' in reference to conducting a REF.
Condition 7	Condition 9	New numbering
Condition 8	Condition 7	New numbering Addition of the requirement to maintain the logbook required under condition 7.
Condition 9	Condition 8	New numbering
Condition 11	Condition 11	Addition of the requirement for the Environmental Report to include reporting against condition 2 when

Condition	Previous condition	Amendments
Table 5	Table 5	biosolids application to land exceeded 7 days in summer and exceeded 30 days in winter, including dates of storage, details of bunds, dates and details of additional monitoring to confirm pathogen regrowth has not occurred, details of fly larvae or pupae and identification results, and dates and details of stockpile treatments, re-inspections and application.
Definitions Table 6	Definitions Table 6	Definitions updated to include approved form and condition as per the Notice of Amendment of Reporting Requirements (16/05/2022).  Definitions added: ACN, biennially.  Definitions deleted: Annual Audit Compliance Report (AACR).
Schedule 1: Maps	Schedule 1: Maps	Premise map updated to include Lot 22 (Figure 1)  Lot map retained and renamed for clarity (Figure 2)  New map added for Lot 22 (Figure 3).

## References

1. Department of Environment and Conservation (2012) *Western Australian guidelines for biosolids management*, Perth, Western Australia.
2. Department of Environment Regulation (DER) (2015) *Guidance Statement: Setting Conditions*, Perth, Western Australia. [Guidance statement: Setting conditions](#)
3. Department of Water and Environmental Regulation (DWER) (2020) *Guideline: Environmental Siting*, Perth, Western Australia. [Guideline: Environmental siting](#)
4. DWER (2020) *Guideline: Risk Assessments*, Perth, Western Australia. [Guideline: Risk assessments](#)

## Appendix 1: Summary of Shire of Victoria Plains comments on proposal

Summary of shire's comment	Department's response
<p>There are three residences which impact the possible disposal areas within Lot 22. The proponent and landowner must be required to conduct acceptable levels of consultation with the owners and residents of those buildings.</p>	<p>The licence holder is required to maintain a 100 m exclusion zone surrounding all residential dwellings located within the prescribed premises. The exclusion zone prevents the application of biosolids within that area.</p>
<p>With regard to the existing licence, the following has been noted and required amendment (or clarification). The existing licence includes Lot 1248 on the schedule of properties. However, it appears that a residence in proximity to that lot has been excluded in the considerations for setbacks from any activity associated with the licence.</p>	<p>The residence on Lot 1248 is a neighbouring premises adjacent to the existing licensed premises. This assessment is limited to the addition of the new lot into the licensed premises, and as such the residence on Lot 1248 is not considered a neighbouring premises of the new lot.</p> <p>Notwithstanding this, the licence holder is required to maintain a 1000 m exclusion zone surrounding all neighbouring residential premises, unless negotiations with the resident have concluded in an agreed smaller exclusion zone.</p>
<p>The existing licence references Lot 127 Mogumber-Yarawindah Road. According to PlanWA mapping, that parcel of land shown in the licence is actually made up of four parcels being Lots 20 (2 parcels) and Lots 21 and 22. This requires clarification and correction in the licence as required.</p>	<p>Noted.</p> <p>Premises descriptors have been amended to reflect the correct parcels of land incorporated into the licence.</p>
<p>Given the terrain, soil types and proximity of creeks and streams of all disposal areas including the new Lot 22, and considering the nature of the disposed materials, representative monitoring should be undertaken of all the existing historical disposal areas to determine the levels of contaminants (if any) in the soils in those areas and to assess any cumulative effects of the activity. The same sampling should be conducted across the proposed disposal site to provide a benchmark.</p>	<p>The licence holder is required to undertake the suite of monitoring requested by the shire, as required by the Biosolids Guidelines prior to each application of biosolids to land.</p> <p>The reapplication of biosolids to any land must be in accordance with section 5.6 and Appendix 7 of the Biosolids Guidelines, as repeat applications of biosolids can lead to the accumulation of nutrients, metals and pesticide residues. It is important to test the soil to determine the level of nutrients and contaminants in the soil prior to initial or repeat applications, and reduce the application rate if required.</p>
<p>This sampling should be conducted at least annually, in addition to the sampling already required under the licence.</p>	<p>The licence requires sampling to be conducted on an as-needs basis, prior to the application of biosolids to land, in accordance with the Biosolids Guidelines.</p> <p>The risk assessment detailed in this Amendment Report determined this sampling is sufficient.</p>

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Summary of shire's comment	Department's response
<p>Water bodies and features downhill and downstream of the disposal areas should also be monitored on a regular basis to ensure that the required procedures and practices are fit for purpose.</p>	<p>The Biosolids Guidelines requires that the application of biosolids should not occur during rainfall events or when heavy rains are forecast. As such, additional monitoring of downstream water bodies is not required as licence conditions.</p> <p>This does not negate the requirements of section 49 of the EP Act, whereby the causing of pollution or unreasonable emissions is an offence.</p>
<p>Results of all sampling, including for instances of fly breeding, should be made available to DWER, DoH and the Shire.</p>	<p>The Biosolids Guidelines requires the licence holder to advise the DoH and the local government of any occasion of fly strike, as detailed in section 6.7. The licence requires annual reporting, however the listed reporting requirements does not include occasions of fly breeding. The risk assessment identified this as important information to monitor the impacts from vectors, so the Delegated Officer has included this as a requirement in the annual reporting condition.</p> <p>Annual reporting documents are public documents that the Shire are able to access from the department website.</p>
<p>The Department is the authority responsible for ensuring the licence conditions are met. Previous concerns including disposal during wet weather events or onto paddocks with grazing livestock, incorrect storage and other issues have generally been attended to and addressed by the Water Corporation, with no attendance by DWER inspectors. The nature of the arrangement and vested interests in continued disposal of the materials should warrant more attentive third party oversight by the agency.</p>	<p>Licence holders are required to comply with the conditions of the licence, or, where conditions are breached to rectify any environmental impacts and spills. They are also required to investigate what occurred to prevent a repeat non-compliance and to reconsider management practices in order to comply.</p> <p>Licence holders are required to report their compliance with licence conditions in the Annual Audit Compliance Report.</p>
<p>Any proposed revision of the onsite locations for storage and amended application areas should be recorded on mapping and provided to the stakeholders before they occur.</p>	<p>The Biosolids Guideline requires the licence holder to implement a documented contingency plan prior to receipt of biosolids from the supplier, as detailed in section 6.7. Parties requiring notification of the specifics of a contingency plan should include the department, DoH and the local government.</p>

## Appendix 2: Summary of licence holder's comments on draft amendment

Condition or section	Summary of licence holder's comment	Department's response
<b>Licence</b>		
Condition 11 Table 5 Item 'condition 2' Summary of all occasions where biosolids application to land exceeded 7 days....	Minor wording change; Summary of all occasions where biosolids stockpiling exceeded 7 days...	Wording changed for clarity.
Condition 11 Table 5 Item 'condition 2 (b)' details of any bunds constructed, including a construction plan and a location map;	<p>Remove requirement for a bund construction plan.</p> <p><u>Bunds Are Temporary, Low-Risk Structures:</u></p> <p>Bunds associated with biosolids stockpiles are typically:</p> <ul style="list-style-type: none"> <li>• Low height</li> <li>• Earthen</li> <li>• Temporary in nature</li> </ul> <p>They do not pose the same structural or safety risks as engineered infrastructure. Detailed construction plans are therefore disproportionate to the risk profile. Removing the construction plan requirement allows site-specific, adaptive bund design and the flexibility to respond to changing field conditions (e.g., soil type, slope, weather) to ensure:</p> <ul style="list-style-type: none"> <li>• Containment of runoff</li> <li>• Protection of surrounding land and water resources.</li> </ul> <p><u>Existing Controls Already Address Environmental Risk:</u></p> <p>Environmental protection is still maintained through:</p>	<p>The Delegated Officer concurs bunds used for biosolids stockpiles are temporary, low risk structures however it is an activity that the Delegated Officer considers should be reported in the environmental report.</p> <p>The condition requests reporting on the details of any bunds constructed, not reporting of detailed construction plans. Details should include the as-constructed length, width and height of the bunds, what material the bunds were constructed of, where on the premises this occurred by way of a location map and dates when the bunds were installed and, if relevant, decommissioned.</p> <p>The Delegated Officer noted in the risk assessment that the licence holder's control is to implement a 100 m buffer from the high-water mark on the upslope side only of dams influenced by surface water runoff. This control was found to be inadequate, however existing licence conditions require a buffer of 100 m from the high-water mark around all agricultural dams, not limited to the upslope side, which is consistent with the Biosolids Guidelines.</p>

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Condition or section	Summary of licence holder's comment	Department's response
	<ul style="list-style-type: none"> <li>• Setback distances from environmental receptors</li> <li>• Stockpile location controls, i.e. slope</li> </ul> <p><u>Preparation and submission of construction plans:</u></p> <p>Adds cost and time but provides limited additional environmental protection benefit particularly for routine, repeatable stockpiling activities.</p>	<p>There is no requirement for the preparation and submission of construction plans that would hinder the installation of the bunds in a timely manner. Rather, it is only the requirement to report to the department on what has been implemented.</p> <p>The Delegated Officer has reworded the condition to clarify the reporting requirements.</p>