



## Application for Licence Amendment

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

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<b>Licence Number</b>	L7391/1999/9
<b>Licence Holder</b>	A. Richards Pty Ltd
<b>ACN</b>	008 734 852
<b>File Number</b>	DEC3864/1~3
<b>Premises</b>	Richgro, Nowergup 206 Wesco Road NOWERGUP WA 6032  Legal description – Part Lot 12738 on Plan 193226 As defined by the coordinates in Schedule 1 of the Revised Licence
<b>Date of Report</b>	8/11/2021
<b>Decision</b>	Revised licence granted

Steve Checker  
MANAGER WASTE INDUSTRIES  
REGULATORY SERVICES

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

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## 1. Decision summary

Licence L7391/1999/9 is held by A. Richards Pty Ltd (Licence Holder) for the Richgro, Nowergup Site (the Premises), located at 206 Wesco Road, Nowergup.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during operation of the Premises. As a result of this assessment, Revised Licence L7391/1999/9 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

### 2.2 Application summary

On 16 August 2021, the Licence Holder submitted an application to the department to amend Licence L7391/1999/9 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The Licence Holder has applied to amend Condition 12 (Table 6 of the existing licence), requesting to extend the duration in which high-risk feedstocks (biosolids, food waste, manure and ASS/PASS) can be stored and processed at the Premises by four months.

### 2.3 Background

The requirement to either improve the permeability of the existing hardstand or remove high-risk feedstocks from the premises (Condition 12) was added to the licence in August 2020. In response to Condition 12 the Licence Holder committed to remove high-risk feedstocks from the Premises within 12 months of the previous amendment (25 August 2020).

Condition 12 was added to the Licence due to groundwater monitoring results indicating elevated concentrations of total nitrogen in groundwater sampled from two monitoring bores (MB3 and MB4). Groundwater monitoring bores, MB3 and MB4, are located close to the leachate pond and down hydraulic-gradient of the greenwaste storage area. They are also located close to Water Corporation's Nowergup Biosolids Facility which includes a pond to capture runoff from the Facility. Monitoring undertaken at the Water Corporation Facility has also recorded elevated concentrations of nitrogen in groundwater.

These two sites were reported to the department under the *Contaminated Sites Act 2003* (CS Act) in November 2016 and have been classified as 'Possibly contaminated – investigation required' due to the elevated concentrations of Nitrogen within groundwater.

A Preliminary Site Investigation identified several areas of potential environmental concern, including potential seepage through hardstand areas and ponds, damage to pond liner and uncontrolled runoff from hardstands at both Richgro's and Water Corporation's premises. Further investigations are underway to determine the source of contamination.

Condition 12 was added to the Licence as the department considers that the groundwater monitoring data does not currently demonstrate that infrastructure at the premises, including the limestone hardstand, is mitigating potential emissions of leachate from the prescribed activities.

The Licence Holder holds a Works Approval (W6213/2019/1) for the construction and time limited operation of a new composting facility in Bannister, Western Australia. This Premises has now been constructed and commencement of operation is imminent. Once this new

facility is operational, the Licence Holder intends that all feedstocks that contain high-levels of nutrients (high-risk feedstocks) from Nowegup will be transferred to this site.

This application seeks to extend the duration in which feedstocks can be stored at Nowegup prior to having to be removed from the Premises, to allow additional time for the works at the Bannister Premises to be completed and the site becomes operational.

### 3. Risk assessment

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

#### 3.1 Source-pathways and receptors

##### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Amendment Report are detailed in Table 1 below. Table 1 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

**Table 1: Licence Holder controls**

Emission	Sources	Potential pathways	Proposed controls
Leachate	Storage and composting of feedstocks	Seepage through soil and limestone hardstand	Remove high-risk feedstocks from the premises by 25 December 2021
Odour	Storage and composting of feedstocks	Air/windborne pathway	
Noise	Vehicle movement and machinery	Air/windborne pathway	
Dust	Lift-off from unsealed surfaces. Storage of feedstocks	Air/windborne pathway	
Fire/smoke	Storage and composting of feedstocks	Air/windborne pathway	

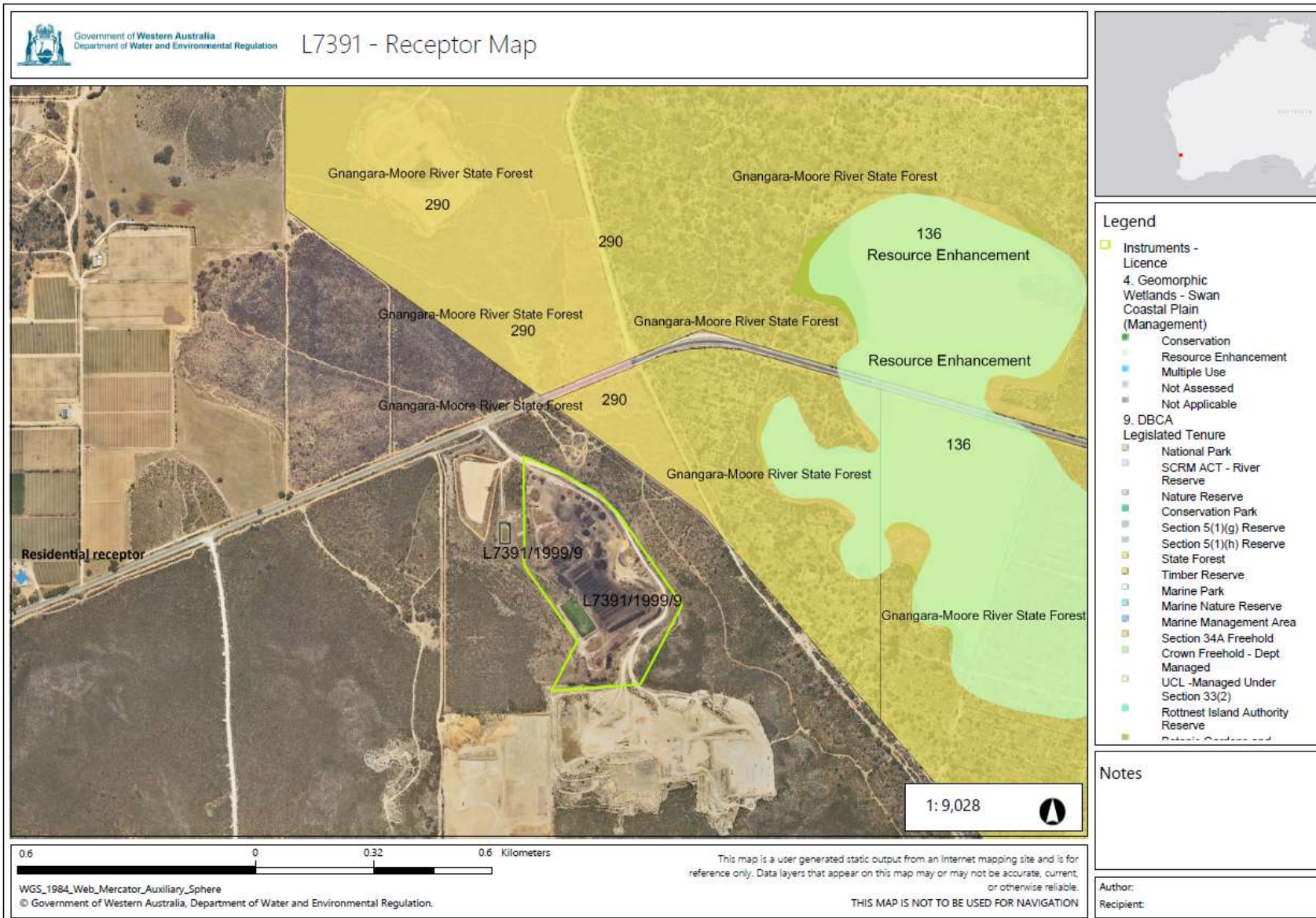
##### 3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), 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 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)).

**Table 2: Sensitive human and environmental receptors and distance from prescribed activity**

<b>Human receptors</b>	<b>Distance from prescribed activity</b>
Residential	The closest residential dwelling is approximately 1.1 km west of the prescribed premises boundary.
<b>Environmental receptors</b>	<b>Distance from prescribed activity</b>
Bush Forever Site 290 – Hopkins Road Bushland, Nowergup	Located 100 m east of the boundary of the prescribed premises
Resource Enhancement Wetland - Camel Swamp	Located approximately 330 m east of the boundary of the prescribed premises – located up hydraulic gradient of the Premises
Lake Neerabup	Located approximately 2.4 km south-west of the boundary of the prescribed premises
Lake Nowergup	Located approximately 2.5 km north-west of the boundary of the prescribed premises
Gnangara-Moore River State Forest	Located 100 m east of the boundary of the prescribed premises
Threatened Ecological Community – Banksia Dominated Woodlands of the Swan Coastal Plain	Located approximately 330 m east of the boundary of the prescribed premises
Threatened Flora, <i>Biodiversity Conservation Act 2016</i>	Located 200 m from the prescribed premises boundary
Priority 1 Public Drinking Water Source Area – Gnangara Underground Water Pollution Control Area	Located approximately 1 km east of the prescribed premises boundary – located up hydraulic gradient of the Premises
Wanneroo Groundwater Area – <i>Rights in Water and Irrigation Act 1914</i>	The prescribed premises is located within this groundwater area.
Groundwater	Groundwater at the Premises, within the unconfined superficial aquifer, is at a depth of approximately 20 mAHD and flows from east to west.
Groundwater bores – Licence to Take Water for the purposes to stock watering, domestic use and irrigation of vegetables.	Closest registered bore is approximately 800 m down hydraulic gradient of the Premises



**Figure 1: Sensitive receptors**

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## 3.2 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 takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the 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 3.

The Revised Licence L7391/1999/9 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e., composting activities.

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

**Table 3. Risk assessment of potential emissions and discharges from the Premises during operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
<b>Operation</b>								
Continued acceptance, storage and composting of high-risk feedstocks on a limestone hardstand for an additional four months.	Leachate	Seepage through soil and limestone hardstand causing contamination of groundwater and contamination of surface waters at the point of groundwater expression.	Groundwater is approximately 20 mAHD.	Refer to Section 3.1.1	<b>Refer to detailed risk assessment below</b>	Y	Conditions 2, 5, 7, 8, 9, 10, 11 and 12.	N/A
	Odour	Air/windborne pathway causing health and amenity impacts.	Closest residential receptor is approximately 1 km west	Refer to Section 3.1.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	Conditions 1, 2, 3, 5, 7 and 8.	N/A
	Noise	Air/windborne pathway causing amenity impacts.	Closest residential receptor is approximately 1 km west	Refer to Section 3.1.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 1	N/A
	Dust	Air/windborne pathway causing health and amenity impacts.	Closest residential receptor is approximately 1 km west	Refer to Section 3.1.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Conditions 1, 2 and 5	N/A
	Fires: particulates and gases including: • Oxides of nitrogen	Air/windborne pathway causing health and amenity impacts.	Nearest residential receptor located approximately 1 km west. Native	Refer to Section 3.1.1	C = Major L = Unlikely <b>Medium Risk</b>	Y	Conditions 2, 3 and 7	N/A

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Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
	<ul style="list-style-type: none"> <li>• Carbon monoxide</li> <li>• Sulfur dioxide</li> <li>• Volatile organic compounds</li> <li>• Non-methane volatile organic compounds</li> </ul>		vegetation associated with Bush Forever Site 290 located 100 m east of the premises.  Camel Swamp (Resource Enhancement Wetland) located approximately 330m east.					

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.

### 3.3 Detailed risk assessment for Leachate

#### 3.3.1 Leachate emissions from continued acceptance, storage and composting of feedstocks

The risk of leachate emissions related to the scope of this application considered whether the continued acceptance and processing of high-risk feedstocks would have any further detrimental impact on groundwater quality.

Based on the groundwater monitoring undertaken at the premises, nitrogen concentrations in groundwater that are likely associated with the composting facilities leachate pond, are observed to be elevated over 2019 (extending into early 2020 for monitoring bore MB4). However, since mid-2020 to August 2021, total nitrogen concentrations have been reported to be fluctuating with no apparent trend or no apparent decreasing trend overall.

On this basis, the department are of the view that activities undertaken on the site continue to contribute to the elevated nitrogen levels within groundwater. However, given the requested extension period is a limited time, it is unlikely that the characteristics of the leachate emissions related to the continued acceptance of high-risk feedstocks will significantly alter the characteristics of the leachate emissions previously assessed for the premises.

The department are aware that Water Corporation has commenced detailed site investigations at the site, which have included groundwater monitoring events, between September 2020 and April 2021. It is expected that the report will be submitted to the department by the end of 2021.

#### 3.3.2 Criteria for assessment

The following guidelines are considered appropriate assessment criteria to assess the potential impact on the beneficial use of groundwater.

- Australian and New Zealand Guidelines for Fresh and Marine Water Quality ANZECC & ARMCANZ (2000) for livestock drinking water quality.

The following guidelines are considered appropriate assessment criteria to assess the potential impact on groundwater dependent and freshwater ecosystems and surface water quality.

- Australian and New Zealand Guidelines for Fresh and Marine Water Quality ANZECC & ARMCANZ (2000) for slightly moderately disturbed ecosystems (95% protection level trigger values).

#### 3.3.3 Applicant/Licence Holder controls

The applicant has committed to removing high-risk feedstocks off the Premises by 25 December 2021. Other controls required by the licence will remain in place.

#### 3.3.4 Key findings

**The Delegated Officer has reviewed the information regarding leachate emissions and has found:**

1. The acceptance, storage and processing of high-risk feedstock for an additional four months, provided the Licence Holder implements all other controls required by the licence, is not likely to result in significant change to the characteristics of leachate emissions to groundwater.

### 3.3.5 Consequence

Based on the current contamination levels in groundwater, the Delegated Officer has determined that the continued, short term, acceptance of high-risk feedstocks is likely to have low-level off-site impacts. Therefore, the Delegated Officer considers the consequence to be **moderate**.

### 3.3.6 Likelihood of Risk Event

Based on the Licence Holder's commitment to remove high-risk feedstocks from the premises by 25 December 2021, the Delegated Officer has determined that, with other controls in place, the continued, short term, acceptance of feedstocks is unlikely to contribute to leachate emissions causing impacts to groundwater. Therefore, the Delegated Officer considers the likelihood of leachate impacts to the human and environmental health to be **unlikely**.

### 3.3.7 Overall rating of leachate risk

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix and determined that the overall rating for the risk of leachate emissions from continued, short term, operations is **medium**.

## 4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

**Table 4: Consultation**

Consultation method	Comments received	Department response
Licence Holder was provided with draft amendment on 29 October 2021	No comments provided. A letter was received by the licence holder on 3 November 2021 requesting to waive the consultation period.	Request to waive the consultation period granted.

## 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.

The Licence Holder provide notification of its intent to remove the high-risk feedstocks in correspondence dated 17 November 2020. On 19 November 2021, the department provided correspondence confirming compliance with Condition 12, Item 2 of Table 6. As such this specialised action has been removed from the licence.

### 5.1 Summary of amendments

Table 5 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 5: Summary of licence amendments**

Condition no.	Proposed amendments
12 (Table 6)	Timescale to comply with item 1 extended from 12 months to 16 months.
	Removal of specialised action 2.

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. DWER 2021, Contaminated Sites Branch advice for Licence amendment L7391/1999/9 (DWER Ref: A2055203).

## Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY			
<b>Application type</b>			
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L7391/1999/9
		Relevant works approval number:	N/A <input checked="" type="checkbox"/>
Date application received	16 August 2021		
<b>Applicant and Premises details</b>			
Applicant name/s (full legal name/s)	A Richards Pty Ltd		
Premises name	Richgro, Nowergup Site		
Premises location	Wesco Rd, Nowergup		
Local Government Authority	City of Wanneroo		
<b>Application documents</b>			
HPCM file reference number:	DWERDT490958		
Key application documents (additional to application form):	n/a		
<b>Scope of application/assessment</b>			
Summary of proposed activities or changes to existing operations.	Amend condition 12 to allow feedstocks to continue to be accepted for an additional 4 months to allow time for the North Banister Site to be operational.		
<b>Category number/s (activities that cause the premises to become prescribed premises)</b>			
<b>Table 1: Prescribed premises categories</b>			
Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity	
Category 67A	100,000 tpa	N/A	
Category 61A	50,000 tpa	N/A	
<b>Legislative context and other approvals</b>			
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>	
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:	
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:	

Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: Licence/permit No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Type: N/A Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Regional office: N/A
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: <b>N/A</b> Priority: P1 / P2 / P3 / <b>N/A</b> Are the proposed activities/ landuse compatible with the PDWSA (refer to <a href="#">WQPN 25</a> )? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act</i> )	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Classification: possibly contaminated – investigation required Date of classification: Nov 2016



