# **Amendment Report**

# **Application for Licence Amendment**

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

**Licence Number** L7391/1999/6

**Licence Holder** A. Richards Pty Ltd

**ACN** 008 734 852

File Number DEC3864/1

Premises Richgro, Nowergup Site

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

Date of Report 10 October 2023

**Decision** Revised licence granted

**Abbie Crawford** 

A/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; Richgro) for the Richgro Nowergup site (the premises), located at 206 Wesco Road.

This amendment report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the premises. As a result of this assessment, revised licence 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 <a href="https://dwer.wa.gov.au/regulatory-documents">https://dwer.wa.gov.au/regulatory-documents</a>.

## 2.2 Amendment summary

On 16 June 2022, 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). Due to a decline in supply of sawdust and pine bark, as a result of high demand in the building trade, the amendment being sought is to include untreated timber products as a solid waste feedstock.

Timber material will be delivered on the green waste area and processed similar to green waste where an excavator with a heavy-duty grab attachment will reduce the size of the timber and break up larger material before being fed into the grinder. In a two-stage operation, the large slow speed grinder breaks the timber down to various sizes ranging from 50mm to 150mm in size. An electromagnet pulls out any hazardous materials such as nails, brackets and scrap metal and woodchip is then screened over a triple deck vibrating screen.

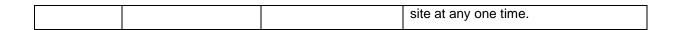
Richgro intend to accept bulk composted products from the Richgro Bannister and Jandakot sites to be blended with additional clean fill (sand), green waste and/or processed timber material into soil blends and mulch products on the site. Composted product and blended products intend to be stored on the limestone hardstand at the premises.

The amendment also includes removing specified actions which have since been completed.

**Error! Reference source not found.** below outlines the proposed changes to the existing Licence.

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
61A	50,000 tpa	60,000 tpa	Inclusion of 10,000 tpa of untreated timber products as a solid waste feedstock.
67A	100,000 tpa	100,000 tpa (including 15,000 tpa of finished compost product)	Processed woodchips will be mixed into blended or composted mulch products.  Acceptance of 15,000 tpa of finished compost material (manufactured offsite) storing no more than 1,000 m³ on



On 28 March 2023, a draft amended licence and amendment report was provided to the licence holder. In considering the findings of the risk assessment, the delegated officer found the risk to groundwater quality (and by extension groundwater users/ groundwater connected ecosystems) through the infiltration of leachate to groundwater resulting from the storage and blending of compost products on the premises, as unacceptable.

Previous issues with the permeable hardstand on the premises have led to leaching of nutrients from high-risk putrescible feedstocks stored on the premises into groundwater. Degradation of groundwater quality has been observed through elevated levels of nutrients, heavy metals and per- and poly-fluoroalkyl substances (PFAS). As a consequence and due to a classification under the *Contaminated Sites Act 2003* high-risk putrescible feedstocks were removed from the premises.

Recent aerial imagery of the premises showed that compost products derived from high-risk putrescible feedstocks manufactured off-site were being stored on the premises. Significant pooling of leachate associated with the compost product was observed on the hardstand outside of the leachate pond. Pooling of water on the hardstand has been attributed as the main pathway for nutrient rich leachate to infiltrate into groundwater.

As a result, the delegated officer considered the hardstand to be inadequate for preventing leachate from the storage and blending of compost products on the premises from infiltrating into groundwater. Furthermore, this was found to be not consistent with the actions undertaken under the *Contaminated Sites Act 2003* and the conditions of the *Remediated – Restricted Use* classification. As a result, the delegated officer did not intend to authorise the acceptance, storage and processing of compost products at the premises.

On 27 July 2023, the licence holder provided a response to the draft amended licence and amendment report addressing the issues identified in the amendment report including a water management assessment and proposed actions and controls. The risk assessment has been revised to take into account the new information provided.

# 2.3 Background of the premises

The premises was first classified as *Possibly contaminated – investigation required* in October 2018 due to elevated concentrations of nutrients (specifically total nitrogen) in groundwater beneath the premises.

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 the neighbouring Water Corporation's premises. Subsequent groundwater monitoring carried out on the two premises in the Detailed Site Investigation identified elevated levels of dissolved metals, nutrients, E. Coli and PFAS. Nitrogen was found above Australian Drinking Water Guidelines downgradient to Richgro's southernmost leachate pond.

The premises was reclassified in August 2022 as *Remediated for restricted use* under the conditions that the premises was suitable for ongoing commercial/industrial land use with the implementation of restrictions. This involves restrictions on land use, the removal of all high-risk putrescible feedstocks from the premises and the use of groundwater abstracted from the on-site bore.

As a result of this reclassification, high-risk putrescible feedstocks have been removed from the licence as part of this amendment. Richgro ceased the receival of high-risk putrescible (biosolids, food waste, manures and ASS/PASS) feedstocks on 7 November 2022.

# 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 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
Dust	Crushing, grinding and screening of untreated timber products.  Acceptance, storage and blending of compost products.	Air/windborne pathway	<ul> <li>Wetting mechanism utilised if required; and</li> <li>Appropriately maintained mechanical exhaust on machinery.</li> </ul>
Odour	Crushing, grinding and screening of untreated timber products.  Acceptance, storage and blending of compost products.	Air/windborne pathway	<ul> <li>Wetting mechanism utilised on conveyor belts if required; and</li> <li>Appropriately maintained mechanical exhaust on machinery.</li> </ul>
Fire / smoke	Crushing, grinding and screening of untreated timber products.  Acceptance, storage and blending of compost products.	Air/windborne pathway	Wetting mechanism utilised if required.
Contaminated stormwater / firewater	Crushing, grinding and screening of untreated timber products.  Acceptance, storage and blending of compost products.	Seepage to soils and groundwater	Limestone hardstand graded toward a leachate pond.
Leachate	Storage and blending of material. Acceptance, storage and blending of compost products.	Seepage to soils and groundwater	<ul> <li>Material stored on limestone hardstand;</li> <li>Regular hardstand maintenance and repairs;</li> <li>Maintaining hardstand perimeter bunding and v-drains;</li> <li>Leachate pond water level management;</li> <li>Leachate pond water used in feedstock moisture conditioning prior to initiating active composting processes;</li> <li>Leachate pond water to be reused as part of regular facility operations; and</li> </ul>
			Development and adherence to an Operational and Environmental

Emission	Sources	Potential pathways	Proposed controls
			Management Plan (OEMP).
Physical, chemical and /or biological contaminants	Product quality	Direct contact of products by consumers and the receiving environment	<ul> <li>Electromagnetic and mechanical screening of timber material; and</li> <li>Storing imported finished compost material up gradient from other organic material.</li> </ul>

#### 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 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 (*Guideline: Environmental siting* (DWER 2020)).

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

Human receptors	Distance from prescribed activity		
Residential premises	The closest residential dwelling is approximately 1.6 km south-west of the prescribed premises boundary		
Market gardens	Approximately 930 m west of the prescribed premises boundary.		
Industrial premises	Immediately adjacent to the west and south of the prescribed premises.		
Environmental receptors	Distance from prescribed activity		
Gnangara-Moore River State Forest	Approximately 100 m east of the prescribed premises boundary		
Bush Forever Site 290 – Hopkins Road Bushland, Nowergup	Approximately 100 m east of the prescribed premises boundary		
Threatened Flora, <i>Biodiversity Conservation</i> Act 2016	Located within 200 m of the prescribed premises		
Threatened Fauna  Carnaby's Cockatoo (Calyptorhynchus latirostris)  Quenda (Isoodon fusciventer)	Located within 1 km on the prescribed premises		
Confirmed Carnaby's Cockatoo Habitat	Surrounding the prescribed premises		
Wanneroo Groundwater Area – Rights in Water and Irrigation Act 1914	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 m bgl and flows from east to west.
Groundwater bores – licence to take water for the purposes to stock of stock watering, domestic use and irrigation of vegetables	Closest registered bore is approximately 900 m down hydraulic gradient of the premises.

# 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 4.

The revised licence L7931/1999/9 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 4: Risk assessment of potential emissions and discharges from the premises during operation

Risk Event	Risk Event							Justification for
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	additional regulatory controls
	Odour	Air/windborne pathway causing impacts to amenity	Closest residential receptor 1.6 km south- west	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1, 2, 5, 18 & 19	N/A
	Dust	Air/windborne pathway causing impacts to health and amenity	Closest residential receptor 1.6 km south- west	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 1, 2, 5, 18 & 19	N/A
Acceptance, handling, processing and storage of untreated timber feedstocks  Acceptance, handling and blending of compost products	Fire / smoke	Air/windborne pathway causing impacts to health and amenity	Closest residential receptor 1.6 km south- west Threatened flora and fauna within 200 m	Refer to Section 3.1	C = Major L = Unlikely <b>Medium Risk</b>	N	Conditions 7, 11, 12 & 13	Standard fire management conditions for sites storing compost have been included. Standard conditions generally align with the benchmark controls listed in the Guideline: Better practice organics recycling.
	Contaminated stormwater / firewater	Seepage through soil and to groundwater causing contamination and impacting water quality	Groundwater approximately 20 m bgl Groundwater users (bores 900 m down hydraulic gradient)	Refer to Section 3.1	C = Major L = Unlikely <b>Medium Risk</b>	Y	Condition 1	N/A

Risk Event	Risk Event							Justification for
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	additional regulatory controls
			Threatened flora within 200 m					
Acceptance, handling, processing and storage of untreated timber feedstocks	Leachate	Seepage through soil and to groundwater causing contamination and impacting water quality	Groundwater approximately 20 m bgl Groundwater users (bores 900 m down hydraulic gradient) Threatened flora within 200 m	Refer to Section 3.1	C = Minor L = Likely <b>Medium Risk</b>	Y	Condition 1, 2, 4, 5, 14, 15, 19 & 20	N/A
Acceptance, handling and blending of compost products	Leachate	Seepage through soil and to groundwater causing contamination and impacting water quality	Groundwater approximately 20 m bgl Groundwater users (bores 900 m down hydraulic gradient)	Refer to Section 3.1	C = Major L = Unlikely <b>Medium Risk</b>	See detailed risk ass	sessment Section 3.3	
Product quality of blended compost products (fit-for- purpose)	Release of physical, chemical and / or biological contaminants	Direct contact by product users and the receiving environment impacting public amenity and public and environmental health	Product users and the receiving environment	Refer to Section 3.1	C = Major L = Unlikely <b>Medium Risk</b>	N	Condition 9 Condition 10	Condition 10 has been added to ensure water from the leachate pond is not re-used on stockpiles of feedstocks that have begun pasteurisation or products which have completed pasteurisation. The delegated officer considers the restricted

Risk Event		Risk rating <sup>1</sup>	Licence Holder's		Justification for			
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood	controls sufficient?	Conditions <sup>2</sup> of licence	additional regulatory controls
								use of leachate water is required to prevent cross-contamination of weeds and pathogens.

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 Description of leachate / groundwater contamination

The risk of leachate emissions considered in this detailed risk assessment relates to the acceptance and blending of compost products on the premises and the subsequent potential impacts to groundwater quality through leachate generation.

#### 3.3.2 Identification and general characterisation of emission

Composted products contain high levels of nutrients. The *Guideline: Better practice organics recycling* (the guideline), was released in December 2022. The guideline lists recycled organic products as a source of leachate. Leachate may be generated through residual liquid in the compost stockpile or through the addition and run-off of additional moisture added to the compost stockpile for either dust suppressant purposes or by rainfall.

As of November 2022, all high-risk feedstocks were removed from the premises due to elevated levels of nutrients detected in the groundwater. However, compost products derived from high-risk putrescible feedstocks manufactured at another facility have been imported onto the premises since then. Compost products are stored and blended on the premises.

Three groundwater monitoring events have been conducted since the removal of high-risk feedstocks from the premises in November 2022. The results from these monitoring events show no change in concentration of nitrogen compared to previous events in MB4, with total nitrogen reporting the second highest concentration since July 2019 and slight decreases in total nitrogen in MB3. Results also show that MB3 and MB4 are more saline than upgradient wells with total dissolved solids concentrations of 1100 to 1200 mg/L compared to 350 to 690 mg/L in upgradient wells. A map of groundwater monitoring bore locations is presented below in Figure 1.

Aerial imagery of the premises since November 2022 shows significant pooling of leachate on the composting hardstand and similarly the V-drains leading to the leachate pond appear to be full and overflowing. Pooling of leachate is related to the storage and blending of compost products on the premises and suggests that, despite the removal of high-risk putrescible feedstocks in November 2022, there may be an ongoing source of nitrogen contamination.

Surface water monitoring of the pools of leachate on the hardstand and leachate pond was undertaken in May 2023. Concentrations of total nitrogen were shown to be significantly higher in the leachate pools compared to the leachate pond (24 mg/L and 4.3 mg/L respectively). The results indicate that elevated concentrations of nitrogen in groundwater are likely associated with the pooling of leachate on the composting facility's permeable limestone hardstand rather than the leachate pond.

Further monitoring will be required to assess whether or not removing high-risk putrescible feedstocks has any impact on improving groundwater quality, however, pooling of leachate on the hardstand is likely still a source of elevated nutrients in the groundwater and it is unlikely there will be any improvements to groundwater quality while an ongoing source remains.

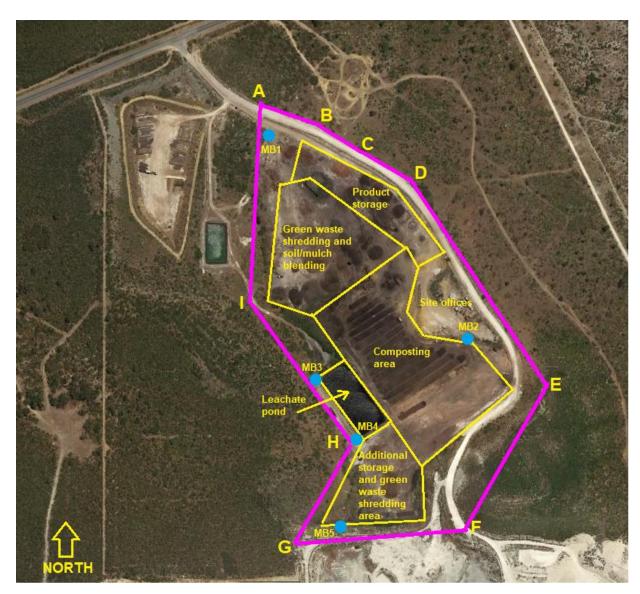


Figure 1: Map of groundwater monitoring bore locations (shown in blue)

#### 3.3.3 Description of potential adverse impact from the emission

Receptors that may be affected by leachate emissions include beneficial users of groundwater. Pooling of leachate on the hardstand creates a pathway whereby leachate can infiltrate through the permeable limestone hardstand and into groundwater. Contaminants dissolved in groundwater may then become highly mobile and be carried down the hydraulic gradient to receptors. In addition, the degradation of organic carbon in the aquifer by microbial respiration can also lead to changes in the aquifer geochemistry which may cause the mobilisation of metals such as iron, manganese and arsenic from aquifer sediments.

Groundwater directly beneath the premises, within the unconfined superficial aquifer, is located approximately 20 to 30 m bgl. Groundwater is fresh to marginal, with salinity ranging from 486  $\mu$ S/cm to 712  $\mu$ S/cm. Regional groundwater flows from east to west, toward the Indian Ocean. There are a number of registered groundwater users down hydraulic gradient from the site, with the closest being 900 m away. Bore water is used down gradient for irrigation of vegetables at market gardens, stock watering and domestic use.

A pathway exists whereby groundwater with elevated concentrations of nutrients and/or metals may be ingested by humans either through direct consumption or indirectly through the irrigation of edible gardens at downgradient bore water users. Drinking water aesthetics may

also be impacted from high levels of nutrients.

Nitrate naturally attenuates in the aquifer via biogeochemical processes. If the site is appropriately managed and the source controlled, then the contaminant plume should attenuate to background levels before any contaminant plume can reach residential or commercial bore water users.

#### 3.3.4 Criteria for assessment

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

- Australian Drinking Water Guidelines 6 (2011).
- 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).

#### 3.3.5 Licence holder controls

In a letter dated 27 July 2023, the licence holder outlined a series of controls for the management of leachate on the premises. Controls included:

- Undertaking repair works on the hardstand to prevent the pooling of water. In May 2023, works began on the repairs to remove low points and prevent pooling of leachate. Works are expected to be completed in Spring 2023.
- Regular maintenance and repair works (as needed) will be undertaken on the hardstand, perimeter bunding and v-drains.
- Installing a pond water level monitor and pump metering infrastructure within the leachate pond and groundwater production bore.
- Implementation of an Operational an Environmental Management Plan. Environmental monitoring and management actions relating to leachate, surface water and groundwater include:
  - Weekly visual inspection of leachate generated from finished compost products and composting windrows, and evidence of pooling on the hardstand;
  - Weekly inspection of stormwater bunding and drainage infrastructure (including v-drains at leachate pond);
  - Weekly monitoring and measurement of leachate pond water level;
  - Weekly measurement of volume pumped out of the leachate pond;
  - Weekly measurement of volume pumped out of the production water bore on site;
  - Monthly inspection of hardstand and visual assessment of leachate pond liner integrity;
  - Monthly clean out of drainage infrastructure, or more often as required (maintained free of accumulated sludge);
  - Monthly review of site water balance model against measured/observed data:

- Monthly rainfall;
- Leachate pond water levels;
- Volume of additional abstraction of water (from production bore);
- Volume of leachate pond water pumped out and reused on site; and
- Volume of leachate pond water pumped out and removed from site.
- Quarterly testing of leachate pond water against groundwater analysis suite;
   and
- Quarterly monitoring of five groundwater monitoring bores (MB1 MB5) in line with the licence.

Licence holder controls have been included in the revised licence as conditions 1, 5 and 9.

#### 3.3.6 Key findings

# The delegated officer has reviewed the information regarding leachate emissions and has found:

- Groundwater beneath the premises contains elevated levels of nitrogen due to inadequate controls for the management of leachate resulting from the storage and processing of high-risk putrescible feedstocks. High-risk putrescible feedstocks were removed from the premises in November 2022 as a result of a classification under the Contaminated Sites Act 2003.
- 2. Compost products are considered to be an ongoing source of nitrogen from leachate run-off through residual liquids in the compost stockpile, or through the addition of moisture via dust suppression or rain.
- 3. Significant pooling of leachate on the hardstand has been observed. Pooling of leachate on the hardstand is considered the main pathway for nutrients to infiltrate into groundwater.
- 4. The limestone hardstand does not meet the objectives of the Guideline: Better Practice Organics Recycling.
- 5. The licence holder has begun repair works on the hardstand and has proposed additional controls for the management of leachate resulting from compost products.
- 6. Further monitoring will be required to assess whether or not removing the contamination source has any impact on improving groundwater quality.

#### 3.3.7 Risk assessment

The delegated officer has:

- considered that the consequence to receptors exposed to contaminated groundwater through infiltration of leachate from compost products stored on the premises could have major impacts to human and environmental health and amenity;
- considered that the likelihood of impacts to receptors is unlikely based on the repair
  of the hardstand and implementation of leachate controls on the premises; and
- determined that the overall rating for the risk of impacts from leachate resulting from the storage of composting products on the premises, based on a consequence of major and a likelihood of unlikely, is medium.

#### 3.3.8 Regulatory controls

In considering licence holders controls as listed in Section 3.3.4 and the findings of the risk assessment, the delegated officer considers the risk to groundwater quality (and by extension groundwater users/ groundwater connected ecosystems) through the infiltration of leachate to groundwater resulting from the storage and blending of compost products on the premises, as acceptable subject to additional regulatory controls as listed in Table 5.

Table 5: Summary of additional regulatory controls for leachate

Condition number	Regulatory control
Condition 1 Table 1	The leachate pond must be inspected following any mechanical desludging and any identified repair damaged. The delegated officer considers it necessary to inspect the pond post intrusive works to ensure its integrity.
Condition 5 Table 4	Compost products must not be stored on the premises for longer than a month. Compost products should be continually moved from the premises. The delegated officer does not consider the long-term storage of compost product on the hardstand as appropriate.
Condition 10 Table 5	The delegate officer considers it necessary to ensure that water from the leachate pond is only used for adding moisture to feedstocks prior to any pasteurisation commencing. Applying water from the leachate pond to the hardstand or to compost products could result in cross contamination and the spread of weeds and pathogens.
Condition 14 Table 6	Dissolved oxygen, arsenic and iron have been included in the groundwater monitoring suite. These additional parameters have been included as natural attenuation parameters to monitor the degradation of the nutrient plume beneath the premises and verify that the controls in place are effective at preventing further impacts to groundwater quality.

The delegated officer may wish to review the efficiency of the controls based on ongoing groundwater monitoring results.

# 4. Consultation

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

**Table 6: Consultation** 

Consultation method	Comments received	Department response
Department of Water and Environmental Regulation Contaminated Sites Branch was advised for comments on 1 August 2022	The Contaminated Sites Branch has advised that the proposal has the potential to generate leachate and may not be contained if placed on a permeable limestone hardstand and could infiltrate to impact groundwater. Although this has the potential to act as a new nutrient source for the site, the classification of remediated for restricted use does not prevent the installation of new equipment that is consistent with a commercial/ industrial land use.  Contaminated Sites therefore recommends that the site operator prepares a management plan to outline how potential leachate	The licence holder was requested to provide a Product Management Plan to demonstrate that there is minimal leachate risk from the compost product on 8 December 2022.  On 2 March 2023 the licence holder provided a Product Management Plan to the department. The Product Management Plan did not include any information on leachate generation or controls.  The delegated officer therefore considers that there are not adequate controls for leachate

	generation from the proposed solid waste feedstock will be contained. This should include details of monitoring and contingency measures should leachate infiltration to soil or groundwater occur.  The restrictions of the site classification will continue to apply to protect the health of site receptors.	emissions from the acceptance, storage and blending of compost products and considers the risk to groundwater to be unacceptable. As a result, the delegated officer has not authorised the acceptance, storage and blending of compost products in this amendment. This does not preclude the licence holder from reapplying in the future when additional controls are proposed.
Licence holder was provided with draft amendment on 28 March 2023	The licence holder held a meeting with the department on 12 April 2023 to discuss the draft amended licence. On 27 July 2023 the licence holder provided a letter outlining additional controls and management measures undertaken to control leachate on the site. The letter has been included as Appendix 1.	The delegated officer has taken into consideration the controls and extra information provided by the licence holder.
Department of Water and Environmental Regulation Contaminated Sites Branch was advised to provide comments on the new controls provided by the applicant (letter dated 27 July 2023) on 8 August 2023	Contaminated Sites Branch (CSB) has reviewed the new information, which details measures to mitigate emissions pathways through the soil profile during the temporary storing and blending of imported finished compost products on the site.  The information held by CSB indicates that the site is suitable for continued commercial/ industrial land use. The OEMP does not appear to have been submitted with the package of new information. However, CSB considers that the measures set out in the response letter appear to be appropriate to mitigate emissions pathways through the soil profile with the implementation of the OEMP. The OEMP will be integral to monitoring leachate pond levels, integrity inspections and groundwater monitoring.	As part of the risk assessment, the delegated officer has conditioned monitoring of leachate pond levels, integrity inspections and groundwater monitoring within the licence.
Licence holder was provided a second draft amendment on 1 September 2023	See Appendix 2	See Appendix 2

# 5. Conclusion

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

# 5.1 Summary of amendments

Table 7 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

**Table 7: Summary of licence amendments** 

Condition no.	Proposed amendments
Prescribed Premises Category table	Increased assessed production capacity for Category 61A to 60,000 tonnes per annual period (from 50,000 tonnes per annual period)
1 Table 1	Added conditions for the operation and maintenance of the v-drains, leachate pond and hardstand area
2	Increase quantity limit of clean fill to 40,000 tonnes per annual period
Table 2	Include untreated wooden timber products as a feedstock
	Increase combined quantity limit of green waste, sawdust and untreated wooden timber products to 60,000 tonnes per annual period (from 50,000 tonnes per annual period)
	Remove putrescible feedstocks (ASS/PASS, biosolids, food waste and manure)
5	Include processes column
Table 4	Include storage and processing requirements for untreated wooden timber products
	Include storage and processing requirements for compost products
	Remove putrescible feedstocks (ASS/PASS, biosolids, food waste and manure)
7	Amended compost window permitted storage dimensions and separation distance
9	Included condition specifying separation of products and feedstocks to prevent cross-contamination
10	Leachate reuse requirements ensuring leachate can only be reused on feedstock stockpiles that have not yet undergone pasteurisation
11	Requiring a Fire and Emergency Management Plan be maintained and implemented for the site
12	Fire management conditions
13	Requirement for licence holder to take action in the event of a fire on the premises
14 Table 6	Additional groundwater monitoring parameters (dissolved oxygen, arsenic and iron)
N/A	Remove completed specified actions
Definitions	Amended definition for green waste

Table 8: Consolidation of licence conditions in this amendment

Existing condition	Condition summary	Revised licence condition	Conversion notes
1 Table 1	Infrastructure and equipment controls	1 Table 1	Revised to current licensing format.

Existing condition	Condition summary	Revised licence condition	Conversion notes
2 Table 2	Feedstock acceptance	2 Table 2	Revised to current licensing format.
4 Table 3	Monitoring of inputs and outputs	4 Table 3	Revised to current licensing format.
5 Table 4	Storage and processing requirements	5 Table 4	Revised to current licensing format.
10 Table 5	Monitoring of ambient groundwater	10 Table 5	Revised to current licensing format.
15	Complaints	14	Revised to current licensing format.
14	AACR	13	Revised to current licensing format and wording.
16 Table 7	Annual Environmental Report Requirements	15 Table 5	Redundant AACR condition removed. Revised to current licensing format
18 Table 7	Notification requirements	17 Table 6	Revised to current licensing format.
21	AACR	N/A	Redundant condition. Adequately covered by alternative existing conditions. Deleted from licence.

## References

- 1. Australian and New Zealand Environment and Conservation Council (2000), *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Artarmon, New South Wales.
- 2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- 3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Better practice organics recycling*, Perth, Western Australia.
- 4. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
- 5. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
- 6. National Health and Medical Research Council (NHRC) 2022, *Australian Drinking Water Guidelines 6*, Canberra, Australian Capital Territory.

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



# DWER Response Letter – Licence L7391/1999/9 Amendment

27 July 2023

To	Brad Jakowyna	Contact No.	08 6364 7213
Copy to	-	Emall	info@dwer.wa.gov.au
From	Tim Richards	Project No.	12558856
Project Name	Richgro Environmental Services Support		
Subject	DEC3864/1~4		

Dear Brad

#### Introduction

Richgro submitted an application on 16 June 2022 to the Department of Water and Environmental Regulation (DWER) to amend licence L7391/1999/9 relating to the acceptance of untreated wooden products as a feedstock material, the acceptance of compost products and to amend Condition 12 at the Nowergup Facility (Facility).

This application was assessed by DWER, and a Draft Licence and Draft Amendment Report provided to Richgro on 28 March 2023 following DWER's proposed decision to grant a revised licence.

As detailed in the Draft Amendment Report, DWER assessed the risk of emissions from the temporary storage of composted product (manufactured off-site) on the limestone hardstand and determined the potential leachate emissions to groundwater as high. The key underlying concern was the potential for leachate to seep through the hardstand and soil profile to groundwater, causing contamination and impacting water quality (refer to Table 1 for details of this assessment). Based on the risk assessment findings, DWER considers the risk to groundwater quality through the infiltration of leachate to groundwater resulting from the storage and blending of imported finished compost products on the premises, as unacceptable.

DWER deems the main pathway for leachate to contaminate groundwater is via the hardstand, which is believed to be inadequate to prevent leachate from temporarily stockpiled imported compost products from infiltrating into groundwater. Subsequently, DWER has not authorised the acceptance, handling and blending of imported finished compost products at the Facility.

Table 1 DWER risk assessment (Source: DWER Draft Amendment Report)

Rlak Event					Risk rating <sup>1</sup>
Source/Activities	Potential emission	Potential pathways & Impact	Receptors	Licence Holder's control	C = consequence L = likelihood
Acceptance, handling and blending of compost products	Leachate	Seepage through soil and to groundwater causing contamination and impacting water quality	Groundwater approximately 20 mAHD Groundwater users (bores 900 m down hydraulic gradient)	Stored on limestone hardstand	C = Major L = Likely High Risk

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

GHD | A. Richards Pty Ltd | 12558856 | DWER Response Letter – Licence L7391/1999/9 Amendment

#### 1.1 Purpose of this report

The purpose of this letter report is to provide a summary of the water management assessment undertaken by GHD and identify additional actions and controls that Richgro would commit to implementing for the management of general stormwater, and leachate resulting from the proposed acceptance, handling and blending of finished compost material (manufactured off-site).

This report is submitted in support of the licence amendment application to permit acceptance of up to 15,000 tonnes of imported finished compost for an annual period, with a maximum stored quantity at any given time of 1,000 m³ (approximately 600 to 700 tonnes), for blending into other products at the Facility.

## 2. Water management assessment

GHD undertook the following scope of work to understand water movement around the Facility:

- Background documentation review
- Groundwater data analysis
- Situational analysis
- Water balance modelling
- Water management assessment.

The situational analysis and water balance modelling undertaken for the Facility indicated that it is likely the majority of water infiltrating into the soil profile and further down into groundwater is via pooling water outside of the leachate pond, as opposed to pond leakage and/or general hardstand infiltration. This assessment is informed by publicly available aerial imagery and survey data that identifies multiple low points adjacent to and north, east and northeast of the leachate pond, and which are situated between the hardstand and the pond (refer to Figure 1).



Figure 1 Aerial imagery – 23 April 2023 (Source: MetroMap)

The pooled water quality also reported elevated nutrient concentrations which correlate with the elevated nutrient levels in nearby groundwater monitoring well, MB3. The leachate pond water quality showed lower nutrient concentrations than samples taken from the localised areas of pooled water, indicating that hardstand runoff may not be consistently reaching the pond and is pooling in localised depressions, which may be migrating to ground. This inference is consistent with theoretical groundwater infiltration determined by site water balance modelling.

It is noted that, assuming the hardstand surface is maintained in good order, the site water balance model indicates that infiltration from sloped portions of the hardstand will likely be almost negligible.

Pooling of water on the hardstand at the Facility can be minimised, if not avoided, by addressing undulations and localised depressions in the hardstand surface, correcting the hardstand grade and maintaining associated drainage infrastructure (regular inspection and clean-out of the v-drain between the leachate pond and hardstand).

While re-grading the hardstand to remove localised low points will minimise infiltration from pooling water, it will increase the volume of stormwater runoff entering the leachate pond, which has the potential to increase the risk of pond overflow events if the leachate pond level is not appropriately managed and freeboard maintained. Any such overtopping event may subsequently infiltrate through the surrounding soil profile and into groundwater. Hence, the hardstand surface correction work must be accompanied by leachate pond water level monitoring and if necessary, the increased removal and/or operational uses of water from within the leachate pond.

Active monitoring and management of the leachate pond level will therefore be necessary to reduce the potential for further infiltration of nutrients through the Facility surface and into groundwater.

# 1. Proposed actions and controls

Based on GHD's site water balance modelling and management assessment, the main pathway for leachate to infiltrate through soil and contaminate groundwater is via the pooling of water on the hardstand, and in the event that any contaminated surface runoff is able to find its way to and collect in a localised depression located immediately to the north of the leachate pond, such as following a pond overflow event, or due to inadequate maintenance of perimeter bunding on the western edge of the hardstand. This potential infiltration pathway can be eliminated by implementing the following actions and controls:

- Regular hardstand maintenance and repairs, and maintaining hardstand perimeter bunding and v-drains
- Leachate pond water level management
- Development and adherence to an Operational and Environmental Management Plan (OEMP)
- Imported finished compost management.

#### 1.1 Hardstand repair works

Richgro has taken immediate action to address pooling water on the hardstand by placing mulched green waste in the low points to soak up water and subsequently removing this to allow for hardstand repair works to be undertaken (placement and profiling of crushed limestone), with details of these activities presented in Table 2.

Table 2 Richgro activity relating to removing pooling water

Date	Richgro activity	Comment
17 May 2023	Green waste application onto pooled water	Nowergup team applied loads of mulched green waste to the hardstand low points that contained pooled water.
22 – 26 May 2023	Additional cleaning of v-drains adjacent to leachate pond	Nowergup team cleared accumulated sediment and organic debris from the v-drains located on the northern and eastern sides of the leachate pond.
30 May 2023	Photos of green waste application on pooled area provided to GHD	Refer Figure 2.

Date	Richgro activity	Comment
30 June 2023	Green waste application on additional pooled water following recent rain events. Avoidance of affected areas by heavy mobile plant and equipment.	Following further rain, the Nowergup team applied mulched green waste to recent pooled rainwater.
7 July 2023	Additional green waste application onto areas of pooled water due to more recent rain events.	Nowergup Supervisor applied green waste to pooled areas.
24 July 2023	Green waste application to new areas of pooling water and removal of green waste from low points to enable hardstand reinstatement with clean crushed limestone.	Nowergup Supervisor applied green waste to pooled areas due to more recent rain events. Green waste removed from pooled water areas and limestone placed to reinstate hardstand profile and eliminate low points.
15 August 2023	Investigate, in consultation with civil contractor, the hardstand area for resurfacing.	Commence hardstand reinstatement works, by civil contractor (WA Limestone) at end of winter.

During a recent break in the wet weather, Richgro had the opportunity to remove some of the green waste used to soak up the free water and are now in the process of replacing it with crushed limestone material stockpiled on-site (refer to Figure 3), as a temporary measure in preparation for WA Limestone to undertake a more comprehensive general repair and re-grading of the hardstand to improve surface water runoff to the leachate pond.

Richgro has been engaging with the suitably experienced civil contractor, WA Limestone, since March 2023 to explore repair and refurbishment options for the hardstand. Given the recent wet months, repair works will likely commence in Spring following the decrease in frequency and intensity of rainfall events observed through winter.



Figure 2 Green waste mulch within areas of pooling water





Figure 3 Limestone application in hardstand low points following removal of green waste mulch

## 1.1 Leachate pond water management

After correcting the hardstand surface profile and re-grading, and assuming no change to current composting operating practices, the site water balance model developed by GHD estimated an increase in water volume captured in the leachate pond from stormwater runoff across the hardstand.

Therefore, additional management controls are proposed to minimise the likelihood of a leachate pond overflow event, particularly during the wetter months when the evaporation rate is low.

Richgro propose to install pond water level monitoring and pump metering infrastructure within the leachate pond and groundwater production bore to allow the capture and continuous logging of data, to have real time visibility on the pond water level, and to enable calibration of the Facility site water balance model.

Richgro currently uses leachate pond water in feedstock moisture conditioning prior to initiating active composting processes. To cope with the increased water volume following hardstand re-grading and any additional rainfall during wet years, and subject to site water balance model calibration, additional pond water should be reused as part of regular Facility operations. To manage this additional water volume, Richgro is considering a range of activities and measures including, without limitation:

- Investigate and implement improved aeration of the leachate pond.
- Evaluate recirculation of leachate pond water at times of high ambient temperature (e.g., summer afternoons) to increase pond temperature and enhance evaporation from the pond surface.
- Diversion of "clean" runoff to the stormwater infiltration sump (localised depression to the north of the leachate pond). Clean runoff would be redirected from upstream undisturbed hardstand areas that are not being used for acceptance, stockpiling or processing of feedstocks, thus reducing the high nutrient catchment area draining to the leachate pond.
- Enhance evaporation rates by watering suitably maintained and sloped hardstand areas (away from material stockpiles and windrows that have already been pasteurized) during periods of warm, dry weather, but only to the extent that this results in minimal risk of contamination and infiltration, eliminates wind-borne dust generation, and promotes rapid evaporation.
- Increase water volume utilised in feedstock moisture conditioning at the beginning of the pasteurisation phase of composting.
- Introduce more frequent active turning of windrows in the feedstock moisture conditioning and pasteurisation (active heating) phase of the composting process to enhance evaporation and excess moisture removal during normal operations.

In addition to the above leachate pond management measures, to further minimise the likelihood of a pond overflow event during the wet winter months, the leachate pond level will be managed to its lowest practicable level by April each year to enable the pond to cope with winter rainfall. This requirement is detailed within the Operational and Environmental Management Plan, as detailed further in Section 3.3.

#### 1.1 Operational and Environmental Management Plan

GHD has worked with Richgro to update and adapt their Facility Management Plan to an Operational and Environmental Management Plan (OEMP) to more clearly describe operational practices, and environmental monitoring and reporting requirements.

The OEMP details the environmental management strategy for all identified potential environmental impacts, and includes environmental goals, management strategies, management activities, performance indicators/targets and required reporting and reviews.

Environmental monitoring and management actions relating to leachate, surface water and groundwater include:

- Weekly visual inspection of leachate generated from finished compost products and composting windrows, and evidence of pooling on the hardstand
- Weekly inspection of stormwater bunding and drainage infrastructure (including v-drains at leachate pond)
- Weekly monitoring and measurement of leachate pond water level
- Weekly measurement of volume pumped out of the leachate pond
- Weekly measurement of volume pumped out of the production water bore on site
- Monthly inspection of hardstand and visual assessment of leachate pond liner integrity
- Monthly clean out of drainage infrastructure, or more often as required (maintained free of accumulated sludge)
- Monthly review of site water balance model against measured/observed data:

- · Monthly rainfall
- Leachate pond water levels
- Volume of additional abstraction water (from production bore)
- Volume of leachate pond water pumped out and reused on site
- Volume of leachate pond water pumped out and removed from site
- Quarterly testing of leachate pond water against groundwater analysis suite
- Quarterly monitoring of five groundwater monitoring bores (MB1 MB5) in line with the Licence.

#### 1.1 Finished compost management

The Facility has previously been permitted to undertake composting processes with a range of feedstocks. The total annual quantity of composted and soil blended material between 2019 and 2021 ranged between 37,600 to 46,000 tonnes. The November 2022 licence amendment application requested approval for the acceptance of up to 30,000 tonnes of imported finished compost per annual period, with a maximum stored quantity at the Facility at any given time of 1,000 m³ (approximately 600 to 700 tonnes), for blending into other products. However, upon review of this request, Richgro is now seeking approval for a reduced quantity of imported finished compost material of up to 15,000 tonnes per annual period, with a maximum stored quantity at the Facility at any given time of 1,000 m³ (approximately 600 to 700 tonnes).

It is expected that implementing the actions and controls outlined in Section 3.1 to 3.3 will be sufficient to manage surface water/leachate and eliminate the potential leachate emission pathway to groundwater, both in the Facility's current state and when accepting and storing imported finished compost.

In order to minimise the volume of leachate generated from the storage of imported finished compost, and particularly from any stockpile/s of such material, Richgro are considering the implementation of one or more of the following additional controls:

- Imported finished compost material will be stored on an area of the hardstand that is up gradient from other
  organic materials, to avoid potential for stormwater runoff that may have contacted unpasteurized green
  waste to runoff into the finished compost material and introduce weed propagules and pathogens etc.
- Imported finished compost material stockpiles could be covered, either via a permanent roofed structure (refer
  to Figure 4 for example roofed structure) during wet winter months, or temporary covers (e.g. tarpaulins –
  refer to Figure 5) prior to forecast rainfall events, to minimise potential for pile saturation and generation of
  high-nutrient stormwater runoff and leachate from this material, and any associated infiltration through the
  hardstand.
- Imported finish compost material stockpiles could be located on a dedicated low permeability hardstand,
   constructed of either concrete, or a composite membrane containing profile (such as Elcoseal lining or similar geosynthetic clay liner), with connectivity to the leachate pond for management of contaminated runoff.
- Ongoing monitoring of groundwater and leachate pond samples to observe water quality trends.



Figure 4 Example roof structure (Source: DomeShelter)



Figure 5 Example of tarpaulin temporary stockpile cover

# 1. Concluding comments

DWER considered the risk to groundwater quality through the infiltration of leachate to groundwater resulting from the acceptance, handling and blending of imported finished compost products on the premises, as unacceptable. DWER deemed the main pathway for leachate to contaminate groundwater to be via the hardstand, which is considered to be inadequate to prevent leachate from the finished compost products from infiltrating into groundwater.

Following development of a site water balance model, GHD determined the majority of water infiltrating into the soil profile and further down into groundwater is likely via pooling water in localised depressions and degraded areas of the hardstand outside of the leachate pond, as opposed to pond leakage. By implementing the actions and controls proposed in Section 3, it is expected that the emission pathway through the soil profile can be appropriately mitigated whilst temporarily storing and blending imported finished compost products at the Facility. A revised groundwater risk assessment incorporating the proposed controls, has found the risk rating is reduced to Moderate (refer to Table 3).

Table 3 Groundwater risk assessment – revised

Risk Event			Risk rating <sup>1</sup>		
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's control	C = consequence L = likelihood
Acceptance, handling and blending of compost products	Leachate	Seepage through soil and to groundwater causing	Groundwater approximately 20 mAHD Groundwater users	Stored on limestone hardstand	C = Major L = Likely <b>High Risk</b>
		contamination and impacting water quality	(bores 900 m down hydraulic gradient)	Proposed controls <sup>2</sup> : - Stored on re-graded limestone hardstand - Hardstand integrity inspections - Leachate pond water level monitoring	C = Moderate L = Possible Moderate Risk

<sup>1</sup> Consequence ratings, likelihood ratings and risk descriptions are detailed in the Guideline: Risk assessments (DWER 2020).

#### 1. Limitations

This report has been prepared by GHD for A. Richards Pty Ltd and may only be used and relied on by A. Richards Pty Ltd for the purpose agreed between GHD and A. Richards Pty Ltd as set out in Section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than A. Richards Pty Ltd arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

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<sup>&</sup>lt;sup>2</sup> Proposed controls in addition to existing controls.

# Appendix 1: Summary of applicant's comments on risk assessment and draft conditions (second draft)

Condition	Summary of applicant's comment	Department's response
Feedstock controls	The word compost should be in plural:	Amended to state "compost products."
Condition 2	- Compost products: 15,000 tonnes per annual period	
Table 2	Richgro manufacture a variety of composts that will be utilised at the Nowergup site.	
Storage and processing requirements	Richgro seek confirmation on the meaning of a sentence within the Feedstock Control table.	The interpreted meaning is correct. The wording has been updated to clarify the intended meaning.
Condition 5	Production of recycled organic products to be removed from the	
Table 4	premises.	
	Richgro have taken this sentence to mean that the production of items (Richgro Products) will be sold (removed) from the premises. Please can this be confirmed as the correct meaning.	
Windrow management	The amendment of the separation distance from 0.5 metres to 6 meters of	Clearance between stockpiles is required for fire and
Condition 7(f)	clear ground.	emergency management. The delegated officer considers 2 m clearance as sufficient for the premises. The condition has
	Richgro seek confirmation as to why this change in separation distance is required. Should the distance need to be increased for vehicle access between windrows, then 2.0m is sufficient.	been updated.
	Richgro request that this separation distance be reduced from 6.0 meters as this distance is not feasible for site operational purposes.	
Groundwater monitoring	Additional parameters:	Cobalt occurs naturally in Western Australian soils sorbed onto
Condition 14	- Arsenic	ferruginous coatings on sand grains below the water table which have accumulated over time. Cobalt may become
Table 6	- Iron	desorbed from aquifer sediments during reductive processes
	- Dissolved Oxygen	that take place in groundwater during the degradation of organic carbon plumes. Therefore, monitoring concentrations
	- Cobalt	of cobalt in an aquifer is an effective means to indicate the presence and natural attenuation of organic groundwater

Condition	Summary of applicant's comment	Department's response
	Richgro QA understand and accept testing for Arsenic, Iron and Dissolved Oxygen in bore waters but seek the reason and requirement for Cobalt testing as this is a rare metal element.  Currently Richgro have a contractual arrangement with NATA SGS Laboratories and this element is not listed for testing for either Jandakot or Bannister sites.  Richgro request that this element (Cobalt) be removed from the monitoring parameters.	contamination.  The delegated officer has reviewed the groundwater monitoring suite and considers there are enough additional parameters included to monitor for potential presence of an organic contamination plume and natural attenuation parameters. The delegated officer has removed the requirement to monitor for cobalt, however, the delegated officer may review the efficiency of the groundwater monitoring suite based on ongoing groundwater monitoring results.
Groundwater monitoring	Alignment error – Parameter and Action Criteria	Typo amended.
Condition 14 Table 6	The groundwater action criteria for Total Organic carbon is reflected as 1.0 mg/L. This action criteria should be aligned with the Total Phosphorus parameter - please refer to previous Licence dated 8/11/2021.	
Exceedance monitoring Condition 15	The reference to Table 5 in this condition is incorrect. The table reference should be Table 6.	Typo amended.

# **Appendix 2: Application validation summary**

SECTION 1: APPLICATION SUMMARY					
Application type					
Works approval					
		Relevant works approval number:		None	
		Has the works approve	al been complied with?	Yes □	No □
Licence		Has time limited opera approval demonstrated operations?		Yes □	No □ N/A □
		Environmental Complia Containment Infrastruc	ance Report / Critical cture Report submitted?	Yes □	No □
		Date Report received:			
Renewal		Current licence number:			
Amendment to works approval		Current works approval number:			
Amendment to licence	N	Current licence number:	L7391/1999/9		
Amendment to licence		Relevant works approval number:		N/A	
Registration		Current works approval number:		None	
Date application received		16 June 2022			
Applicant and Premises details					
Applicant name/s (full legal name/s)		A. Richards Pty Ltd			
Premises name		Richgro Nowergup Site	е		
Premises location		206 Wesco Road Now	ergup		
Local Government Authority		City of Wanneroo			
Application documents					
HPCM file reference number:		DEC3864/1~4			
Key application documents (additional to application form):		1A – Proof of occupier status 3B – Proposed activities 6B – Waste Acceptance			
Scope of application/assessment					
Summary of proposed activities or change existing operations.	removal of p  Remove cor	of untreated wooden produtrescible feedstocks; npleted specified actions e and blend compost prod premises.	from licer	nce; and	

Category number/s (activities that cause the premises to become prescribed premises) Table 1: Prescribed premises categories Prescribed premises category and Assessed production or design Proposed changes to the description capacity production or design capacity (amendments only) Category 61A: Solid waste facility 50,000 tpa 60,000 tpa Legislative context and other approvals Referral decision No: N/A Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of Managed under Part V □ Yes □ No ⊠ the EP Act as a significant proposal? Assessed under Part IV □ Ministerial statement No: N/A Does the applicant hold any existing Part IV Ministerial Statements relevant to the Yes □ No ⊠ EPA Report No: N/A application? Reference No: N/A Has the proposal been referred and/or Yes □ No ⊠ assessed under the EPBC Act? Certificate of title □ General lease 

Expiry: April 2023 Has the applicant demonstrated occupancy Yes ⊠ No □ (proof of occupier status)? Mining lease / tenement □ Expiry: Other evidence □ Expiry: Has the applicant obtained all relevant planning Approval: approvals? Expiry date: Yes □ No □ N/A ⊠ If N/A explain why? Within bounds of current planning approval. Has the applicant applied for, or have an CPS No: N/A existing EP Act clearing permit in relation to Yes □ No ⊠ No clearing is proposed. this proposal? Has the applicant applied for, or have an Application reference No: N/A existing CAWS Act clearing licence in relation to Licence/permit No: N/A this proposal? Yes □ No ⊠ No clearing is proposed. Has the applicant applied for, or have an Application reference No: existing RIWI Act licence or permit in relation to Licence/permit No: GWL 166289(2) this proposal? Yes ⊠ No □

Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes □ No ⊠	Name: Wanneroo groundwater area Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes □ No □ N/A ☒ Regional office: N/A
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 ⊠	N/A
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes □ No ⊠	N/A
Is the Premises subject to any EPP requirements?	Yes □ No ⊠	N/A
Is the Premises a known or suspected contaminated site under the Contaminated Sites Act 2003?	Yes ⊠ No □	Classification: possibly contaminated – investigation required (PC–IR)  Date of classification: 23 Oct 2019