# **Amendment Report**

# **Application for Licence Amendment**

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

Licence Number L8887/2015/1

Licence Holder JD Organics Pty Ltd

ACN 154 081 651

File Number DER2015/000261

Premises Garden Organics

276 Aurisch Road

**BOONANARRING WA 6503** 

Legal description -

Part of Lot 12 on Diagram 92147

As defined by the Premises maps and GPS coordinates

attached to the Revised Licence

Date of Report 4 October 2021

**Decision** Revised licence granted

Melissa Chamberlain Senior Environmental Officer, Industry Regulation

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

# **Table of Contents**

1.	Decision summary2								
2.	Scope	e of as	sessment	2					
	2.1	Regula	atory framework	2					
	2.2 Application summary								
3.	Risk a	assess	sment	3					
	3.1	Source	e-pathways and receptors	3					
		3.1.1	Emissions and controls	3					
		3.1.2	Receptors	5					
	3.2	Risk ra	atings	7					
	3.3	Detaile	ed risk assessment – odour emissions from operation	10					
		3.3.1	Hazard characterisation and potential impacts	10					
		3.3.2	Current situation	10					
		3.3.3	Odour assessment	10					
		3.3.4	Criteria for assessment	11					
		3.3.5	Applicant/Licence Holder controls	11					
		3.3.6	Key findings	11					
		3.3.7	Consequence	11					
		3.3.8	Likelihood of Risk Event	11					
		3.3.9	Overall rating of odour risk	12					
	3.4	Detaile	ed risk assessment – leachate associated with operation	12					
		3.4.1	Hazard characterisation and potential impacts	12					
		3.4.2	Criteria for assessment	12					
		3.4.3	Applicant/Licence Holder controls	13					
		3.4.4	Key findings	13					
		3.4.5	Consequence	13					
		3.4.6	Likelihood of Risk Event	13					
		3.4.7	Overall rating of leachate risk	13					
4.	Cons	ultatio	n	14					
<b>5</b> .	Conc	lusion		14					
	5.1	Summ	ary of amendments	14					
Refe	erence	S		16					
Арр	endix	1: App	lication validation summary	17					

# 1. Decision summary

Licence L8887/2015/1 is held by JD Organics Pty Ltd (Licence Holder) for the Garden Organics composting facility (the Premises), located at 27 Aurisch Road, Boonanarring.

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 L8777/2015/1 has been granted.

# 2. Scope of assessment

## 2.1 Regulatory framework

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

# 2.2 Application summary

On 25 March 2021, the department issued Works Approval W6483/2020/1 to JD Organics Pty Ltd t/a Garden Organics for the construction and time limited operation of Hardstand 3 and Leachate Pond 3 at the Premises.

On 30 June 2021 an Environmental Compliance Report was submitted to demonstrate that the new hardstand and leachate pond had been constructed as per the requirements of Works Approval W6483/2020/1. An assessment of the compliance report and additional information indicated that the hardstand and leachate pond were fit for purpose.

On 13 July 2021, the Licence Holder submitted an application to the department to amend Licence L8887/2015/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Increase feedstocks (Categories 61 and 61A)
- Increase compost production (Category 67A)
- Include K100 (animal effluent) as a liquid waste feedstock

Table 1 below outlines the proposed changes to the existing Licence

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
61	2,000 tonnes per annual period	5,000 tonnes per annual period	To be a combination of grease trap waste, food and beverage waste and animal effluent.
61A	Combined total of 27,000 tonnes per annual period	44,500 tonnes per annual period	The largest increase in feedstocks is FOGO waste which is increasing from 500 tonnes per annum to 8,000 tonnes per annum.  Greenwaste acceptance will also increase to approximately 30,000 tonnes per annum.

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
67A		49,500 tonnes per annual period	This category is based on compost output and is therefore a combination of the liquid and solid wastes from Categories 61 and 61A.

#### 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					
Operation								
Odour	Waste acceptance Composting Turning of windrows Leachate pond	Air/windborne pathway	Implementation of odour management plan, including:  Spent mushroom compost, cow and sheep bedding processed within 48 hours;  Poultry manure will immediately be incorporated into compost;  FOGO and grease trap waste processed on receival to site;  Initial composting/pasturisation of FOGO to occur within an enclosed forced aeration system;  FOGO will not be unloaded into composting facility when wind is blowing from a south/south westerly direction;					
			Monitoring of moisture and temperature; Pre booking of deliveries of odorous					

Emission	Sources	Potential pathways	Proposed controls	
			feedstocks; and	
			Use of sediment traps and aerators on leachate ponds.	
Leachate	Waste acceptance and composting	Seepage through soil	Hardstand constructed to achieve low/negligible permeability	
	Storage of leachate in leachate pond	and transport through groundwater	through	Hardstands graded with a 4% fall to the leachate ponds
	Seepage through hardstand areas and ponds		Monitoring of moisture content of compost  A freeboard of 1m will be maintained in leachate ponds	
	Damage/rupture of pond liner		leachate punds	
	Overtopping of ponds;			
	Run-off from hardstand			
Noise	Waste acceptance	Air/windborne	Speed limits on internal roads	
	and composting activity	pathway	Delivery/collection contractors not to idle at the site gates	
	Vehicle movement		All vehicles to be regularly serviced	
Dust	Waste acceptance and composting	Air/windborne pathway	Use of dust cart to wet down access road in dry conditions	
	activity  Vehicle movement		Traffic plan for site to be followed	
Particulates, noxious	Compost fire	Air/windborne pathway	Implementation of fire management plan, including:	
gases and smoke			Installation of a 180,000 L water storage tank dedicated to fire fighting;	
			Windrow moisture content to be kept at between 40 – 60%;	
			Annual inspection of fire extinguishers and other firefighting equipment;	
			Site security;	
			Green waste stockpiles to have a 10 m trafficable distance between each pile and each pile is to be no more than 5 m high and 5 0m long and 10 m height;	
			Use of water trucks;	
			Flammable goods not to be stored in green waste area;	
			8x50 mm water hydrants around composting hardstands;	

Emission	Sources	Potential pathways	Proposed controls
			5 m separation between composting windrows;
			Compost piles to be no more than 3 m high, 6 m wide and 40 m long;
			Compost temperature not to exceed 70 degrees.
Pathogens	Compost	Direct contact	Production of products is carried out in accordance with AS4454.

#### 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 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	Closest residential receptor is located approximately 1,000 m north-east of the prescribed activities, and approximately 280 m from the Premises boundary.  This receptor is also approximately 45 m higher in elevation that the Premises.
	Residential receptor located approximately 2 km west of the Premises boundary.
Environmental receptors	Distance from prescribed activity
Yurine Swamp Nature Reserve	2.9km south-west of the Premises boundary
Groundwater - Water is considered to be fresh (0-500 mg/L TDS) which may have a beneficial value for drinking water, non-potable use, irrigation and livestock use.	Based on the groundwater monitoring data, groundwater across the site within the superficial aquifer was encountered between 11 and 24 metres below ground level (mbgl). Site investigations identified that the confined aquifer (Leederville) is located approximately 60 mbgl. The inferred groundwater flow of the superficial aquifer is east to west towards the series of unnamed lakes, with the confined aquifer having an inferred flow direction towards the south-west.  Five (5) groundwater monitoring bores are located within 1 km of the prescribed activities (based on available GIS dataset – DWER owned

	• 720 m south-east (up gradient);
	• 770 m east, north-east (up gradient);
	1 km south, south-east (upgradient); and
	Two located 1.3 km south-east (up gradient).
	The closest down-gradient groundwater monitoring bore installed in the superficial aquifer is located 2.1 km west, south-west of the prescribed activities.
Resource Enhancement Wetland	Located 185 m south-west of the Premises boundary
White lake	Located 1.5 km west of the Premises boundary
Unnamed lakes	Ranging from 1.3 km south and between 2.5 and 3.3 km west of the Premises boundary
Threatened ecological community (TEC)	Mapped within the Premises boundary.
Banksia dominated woodlands of the Swan Coastal Plain	Approximately 40m west of the prescribed activities
Department of Biodiversity, Conservation and Attractions managed land – Boonanarring Nature Reserve	Located 270 m east of the Premises boundary

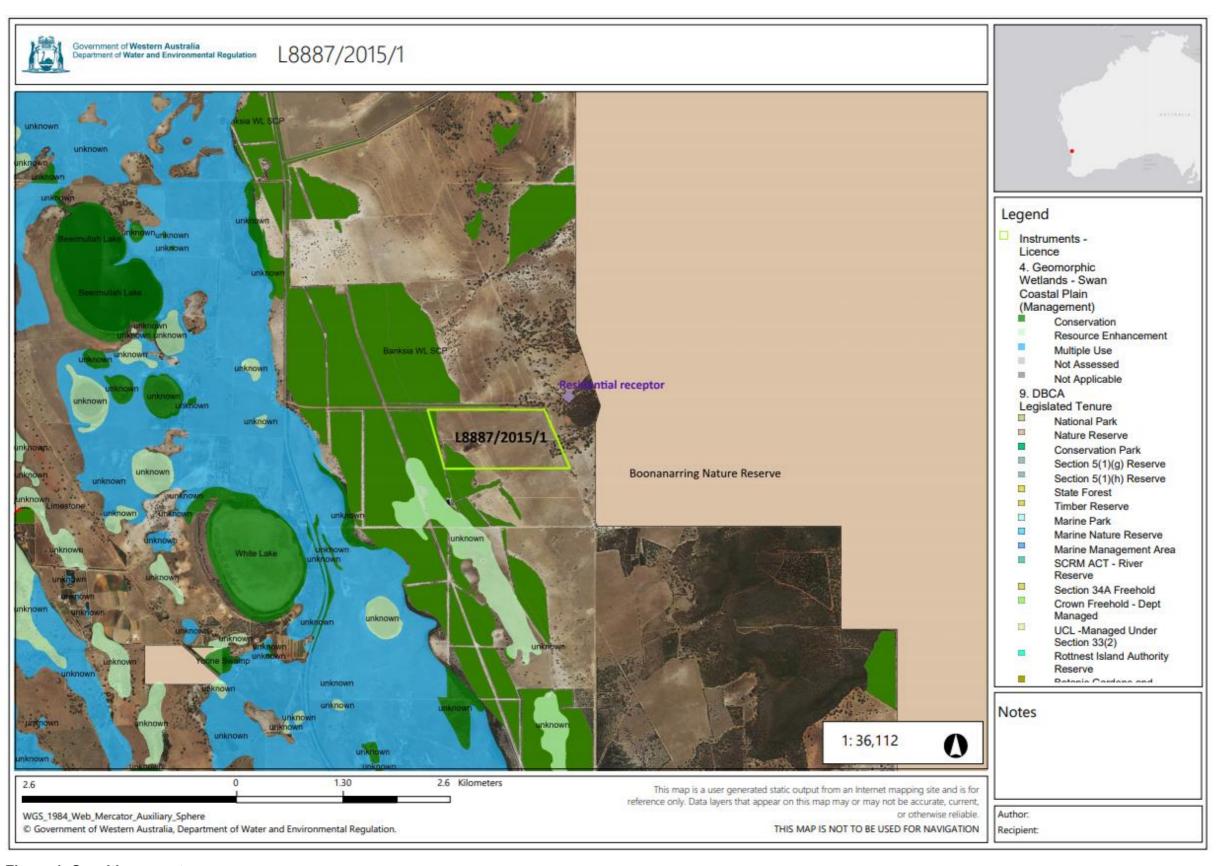


Figure 1: Sensitive receptors

# 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 .

The Revised Licence L8887/2015/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. composting.

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 rating <sup>1</sup>	Applicant controls	Conditions <sup>2</sup> of Licence	Justification for additional regulatory
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	sufficient?		controls
Acceptance of 49,500 tpa of waste  Composting  Turning of windrows  Leachate pond	Odour	Air/windborne pathway causing impacts to health and amenity	Closest residential receptor 1,000 m north-east of prescribed activities	Refer to Section 3.1.1	Refer to detailed assessment in Section 3.3 below	Y	Conditions 2, 4, 7, 8, 11, 12, 13 and 19  Condition 2 (Item 10) and condition 8.	Condition 2 was updated to ensure that all ponds have an aerator that is operational 24 hours a day.  Condition 8 was updated to require that aeration flooring and extraction fans are operational when FOGO waste is inside the composting shed.
Addition of animal effluent (K100) as a liquid waste feedstock	Odour	Air/windborne pathway causing impacts to health and amenity	Closest residential receptor 1,000 m north-east of prescribed activities	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 2, 4, 7, 8, 11, 12, 13 and 19	This feedstock will be processed in the same manner as other liquid feedstocks in that it will remain in the delivery liquid waste tanker or stored in the on-site tanker prior to immediate mixing. Therefore, no additional odour related conditions have been added to the licence.
Waste acceptance and composting Storage of leachate in leachate pond Seepage through hardstand areas and ponds Damage/rupture of pond liner Overtopping of ponds; Run-off from hardstand	Leachate	Seepage through soil and transport through groundwater causing contamination of groundwater and surface water.	Groundwater – superficial aquifer (11 to 24 mBGL). Resource Enhancement Wetland 185 m south-west of Premises boundary Threatened Ecological	Refer to Section 3.1.1	Refer to detailed assessment in Section 3.4 below	Y	Conditions 2, 4, 5, 6, 7, 8, 10 and 11  Condition 2 (Items 8 and 9)	Item 8 (Hardstand 3) and item 9 (Leachate Pond 3) were added to condition 2 to ensure that these items are keep in good working order.

Waste acceptance Composting activities Vehicle movement around site	Noise	Air/windborne pathway causing impacts to health and amenity	Community 40m west of prescribed premises  Closest residential receptor 1,000 m north-east of prescribed activities	Refer to Section 3.1.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 3	No additional conditions added
Waste acceptance Composting activities Vehicle movement around site Storage of greenwaste	Dust	Air/windborne pathway causing impacts to health and amenity	Closest residential receptor 1,000 m north-east of prescribed activities	Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 2	No additional conditions added
Compost fires	Particulates, noxious gases, smoke and ash	Air/windborne pathway causing impacts to health and amenity from smoke inhalation.  Air/windborne pathway causing impacts to the quality of surface water.  Direct contact impacting on health of native vegetation located within the Premises boundary and beyond.	Closest residential receptor 1,000 m north-east of prescribed activities  Threatened Ecological Community 40 m west of prescribed premises	Refer to Section 3.1.1	C = Major L = Rare <b>Medium Risk</b>	Y	Conditions 7 and 8	
End product	Pathogens	Direct contact causing impacts to human health	End product uses	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 7 and 8	

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 – odour emissions from operation

### 3.3.1 Hazard characterisation and potential impacts

Odour generated in the compost process is generally associated with receipt, storage, handling and decomposition of putrescible feedstocks, and leachate and runoff generated from feedstock and compost in the initial pasteurisation stages.

Odour can cause amenity and health impacts to surrounding receptors. Individual responses to odour may vary depending on a person's sensitivity to odours, age, health status and previous exposure patterns to odour. Community impacts from odour can include annoyance, potentially leading to stress, and loss of amenity. Exposure to repeated odour events can create a nuisance effect.

Exposure times and frequency of odour emissions will be dependent on day to day activities and weather conditions. The pathway for odour emissions is air/wind, therefore the prevailing wind direction has been considered. Using information available on the Bureau of Meteorology's website, the closest available weather station for climate data is Gingin Aero (No. 009178. Approximately 29 km away from Boonanarring). Based on the climate data for the Gingin Aero station, the prevailing wind direction is easterly (17 km/h) in the morning and south westerly (21.6 km/h) in the afternoon.

#### 3.3.2 Current situation

The current operation at the Boonanarring Composting Facility has been in operation since 2015. A search of the departments Incidents and Complaints Management System has not identified any complaints regarding odour emissions from the premises.

#### 3.3.3 Odour assessment

As part of the 2019 licence amendment, to undertake a FOGO composting trial, the licence holder committed to:

- Prior to the acceptance of FOGO, carry out a smoke test on the enclosed shed when wind conditions are above 10 kms per hour. This test will be used to determine the negative pressure attributes, air exchange rates and the potential for odour release;
- Prior to the acceptance of FOGO, carry out five odour field assessments during different wind conditions and times of day to determine the offsite odour impacts from the existing operations;
- Periodic assessment of odour intensity by a person not permanently located at the facility.

The Licence Holder commissioned OPAM Consulting to undertake an odour baseline assessment in April 2020 and an odour assessment during the FOGO trial.

The initial baseline odour assessment (smoke test) identified that fugitive emissions could escape the composting shed through gaps in the large door on the south east side. These gaps were sealed prior to the FOGO trial. The FOGO odour assessment concluded that "When considering all activities on site including FOGO processing, for light to fresh winds, all odours can be recognized well within the site boundary which provides an available buffer for any increase of production for the site as already indicated in the Baseline odour report" (OPAM Consulting, 2020).

The odour baseline assessment and the FOGO trial odour assessment were referred to the department's Air Quality Branch (AQB) for review. The following advice was received:

OPAM Consulting was commissioned, by the licence holder, to address the odour impact extents resulting from the trial of 500 tonnes of FOGO throughput, rather than the impacts of increased throughput of FOGO (to 8000 tonnes) combined with increased throughput of other

feedstocks (AQB, 2021).

The Odour Assessment, as commissioned by the licence holder, does not meet the requirements for a Detailed Analysis as described in DWER's *Guideline: Odour Emissions*. Therefore, it is by itself insufficient to demonstrate that the nearest residential receptor will not be unacceptably impacted by odour associated with the proposal. However, the additional information contained in the application and FOGO Trial Report, was able to be considered in place of an odour analysis report.

The applicant advised that that FOGO operation was running at full capacity (two windrows) at the time of the odour field surveys. Consequently it may be inferred that the impact extent of FOGO operations (subtle odour measured at a maximum distance of 200 m) is unlikely to change significantly as a result of the increased FOGO feedstock tonnage (AQB, 2021). However, the frequency of measured "obvious" and "subtle" FOGO related odour detected in the field at these distances (subtle odour was measured at a maximum distance of 200 m during the field surveys) is likely to increase (AQB, 2021).

AQB noted that the field results contained in the Odour Assessment may not have captured worst case impact conditions (i.e. relating to both emissions and meteorology). The impact extent was estimated by AQB using simple power function ratios to be in the order of 500-600 m (AQB, 2021).

#### 3.3.4 Criteria for assessment

There are no set threshold or concentration criteria for odour assessment. Under section 49(5) of the EP Act, it is an offence to emit or cause to be emitted, an unreasonable emission from any premises.

Any unreasonable emission is defined in the EP Act (section 49(1)) as an emission or transmission of noise, odour or electromagnetic radiation which unreasonably interferes with the health, welfare, convenience, comfort or amenity of any person.

#### 3.3.5 Applicant/Licence Holder controls

Section 3.1.1 above details the control measures the applicant has proposed to assist in controlling odour emissions.

#### 3.3.6 Key findings

# The Delegated Officer has reviewed the information regarding odour emissions and has found:

- 1. The field results contained in the Odour Assessment may not have captured worst case impact conditions (i.e. relating to both emissions and meteorology).
- 2. The odour impact extent from the proposed operations has been estimated by AQB to be in the order of 500-600 m.
- 3. The separation distance to the closest residential receptor, located approximately one kilometre north-west of the prescribed activities, is expected to be adequate for the purposes mitigating odour impacts.

#### 3.3.7 Consequence

Given that the closest residential receptor is located 1,000 m from the prescribed activities, the Delegated Officer has determined that off-site impacts of odour will be minimal. Therefore, the Delegated Officer considers the consequence of odour emissions to be **minor**.

#### 3.3.8 Likelihood of Risk Event

Due to the distance to residential receptors and that highly odorous feedstocks will be pasturised within an enclosed facility, the Delegated Officer has determined that odour emissions, impacting receptors, will probably not occur in most circumstances. Therefore, the Delegated Officer considers the likelihood of odour emissions causing impacts to amenity is **unlikely**.

#### 3.3.9 Overall rating of odour 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 odour emissions is **medium.** 

## 3.4 Detailed risk assessment – leachate associated with operation

#### 3.4.1 Hazard characterisation and potential impacts

Leachate emissions from compositing facilities have the potential to contain nutrients, metals, salts and other soluble or suspended components and decomposition products of the waste. Leachate also generally has a high biochemical oxygen demand.

Without effective containment measures, composting leachate has the potential to infiltrate to soil and groundwater or flow into surface water bodies. This may lead to adverse environmental impacts or affect the beneficial use of these resources. Beneficial use means a use of the environment, or of any portion thereof, which is conducive to public benefit, public amenity, public safety, public health or aesthetic enjoyment and which requires protection.

#### Hazard to surface water and groundwater

Groundwater (superficial aquifer) at the premises is between 11 and 24 m below ground level and flows is an east to west direction.

The Premises is located within 185 m of a Resource Enhancement Wetland, which is located down hydraulic gradient. Resource Enhancement Wetlands are wetlands that have been partially modified but still support substantial ecological attributes and functions. The expression of contaminated groundwater in this surface water body may result in eutrophication and the excessive growth of algae. Algae growth may impact the survival of existing organisms through light and oxygen restriction and cause the degradation of the surface water value and beneficial use.

Banksia Woodlands of the Swan Coastal Plain threatened ecological community (TEC) is mapped in the vicinity (~40 m) of the prescribed activities. The dominant Banksia species associated with this TEC obtains part of its water needs from groundwater. Changes in groundwater levels, groundwater quality, and seasonal fluctuations in groundwater can influence the structure and composition of Banksia woodlands. In addition this woodland could be impacted through degradation of soil quality in the event of spillages of leachate (due to breakdown in infrastructure) or overtopping of the leachate pond.

Soils within the Premises are defined as "Red and yellow deep sands" This soil type is likely to have very low attenuating capacity for contaminants and therefore if leachate is not sufficiently contained, contaminants may easy pass through the soil into groundwater.

#### 3.4.2 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).

#### 3.4.3 Applicant/Licence Holder controls

Section 3.1.1 above details the control measures the applicant has proposed to assist in controlling leachate emissions.

During the compliance review for the hardstand construction, additional information was sought from the Licence Holder regarding the permeability of the hardstand. It was advised that falling head permeability testing of the clay material produced an average result of  $1.5 \times 10^{-9}$  m/s which is slightly above the  $1 \times 10^{-9}$  m/s required under Works Approval. Compaction testing returned results of greater than 95 per cent density ratio. In addition, the licence holder constructed a layer of 100 mm compacted limestone which was not required by the Works Approval. The department took into consideration the permeability of the clay, the compaction and the additional layer of limestone in determining that Hardstand 3 is fit for purpose and that the variation from works approval requirements are considered minor and do not present any additional risk to public health or the environment.

### 3.4.4 Key findings

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

- 1. The storage and handling of compost and leachates has the potential to impact groundwater and surface water quality if not appropriately contained.
- 2. The soil type at the premises is likely to be highly permeable.
- 3. There are several receptors in close proximity.
- 4. A freeboard of 1m will be maintained for all leachate ponds.
- 5. The engineering certification for the construction of Hardstand 3 indicated that has been constructed to achieve an equivalent permeability of 1.5 x10<sup>-9</sup> m/s which is considered acceptable in mitigating impacts from leachate emissions.

#### 3.4.5 Consequence

Based on the proximity of receptors and sensitivity of receiving environment (resource enhancement wetland and TEC), the Delegated Officer has determined that leachate emissions could cause mid-level off-site impacts. Therefore, the Delegated Officer considers the consequence to be **major**.

#### 3.4.6 Likelihood of Risk Event

Based on the Licence Holder's proposed controls, the Delegated Officer has determined that leachate emissions may only occur in exceptional circumstances Therefore, the Delegated Officer considers the likelihood of leachate impacts to the human and environmental health to be **rare**.

#### 3.4.7 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 operations is **medium**.

# 4. Consultation

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

**Table 5: Consultation** 

Consultation method	Comments received	Department response
Local Government Authority advised of the works approval application on 20/01/2021	In an email dated 21/01/2021 the Shire of Gingin advised that "At the 15 December 2020 Ordinary Council Meeting Council resolved to approve an Application for Development Approval for additional hardstand and leachate dam to service the existing noxious industry (composting facility) on Lot 12 Aurisch Road, Boonanarring".	The department notes this advice.
	The Development (Planning) Approval dated 21 December 2020 is consistent with the plans contained in the documentation supporting the Works Approval.	
Department of Primary Industries and Regional Development advised of the licence amendment application on 12/08/2021.	Several phone calls received in September to discuss the storage of poultry manure. It was advised that the storage of poultry manure for three weeks was not in line with the Biosecurity and Agriculture Management (Stable Fly) Management Plan 2019. To date, formal written advice has not been received.	The department has relayed this information to the licence holder who has since removed the request to store poultry manure for three weeks.
Licence Holder was provided with draft amendment on 30/09/2021	In an email dated 1 October 2021 the Licence Holder's consultant requested to waive the notification period.	Noted

# 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 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 6: Summary of licence amendments** 

Previous condition no.	Revised condition no.	Comments	
n/a		Front page updated with amended production capacities	
1	1	Feedstock quantity limits updated and 'food and beverage processing waste' and 'animal effluent' added as feedstocks	
2	9	Monitoring of feedstock inputs and outputs moved to the monitoring section of the Licence.	
3	20	Reporting on inputs and outputs moved to the Annual Environmental Report condition	
4	2	Table 2 updated to include Hardstand 3 and Pond 3	
5, 6, 7 and 9	3, 4, 6 and 7	Change to condition number only	
8	6	Condition updated to include Leachate Pond 3	
10	8	Condition updated to specify that floor aeration and extractor fans have to be in use when food organics and garden organics waste is in the composting shed.	
11	10	New monitoring bore MB8 added as a monitoring location	
12	20	Reporting on groundwater monitoring moved to the Annual Environmental Report condition	
13	11	Ponds renamed as leachate ponds. Pond 4 removed as it does not exist.	
14 and 15	12 and 13	Change to condition number only	
16	20	Reporting on pond monitoring moved to the Annual Environmental Report condition	
17	14	Condition updated to include Leachate Pond 3	
18, 19, 20, 21 and 22	15 16, 17, 18 and 19	Change to condition number only	
	20	Reporting requirements amalgamated into one condition. All reporting is now due on the same day, being 90 days after the end of each annual period.	

# References

- Air Quality Branch (AQB) 2021, Air Quality Technical Advice for Works Approval W6483/2020/1.
- 2. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
- 3. DER 2017, Guidance Statement: Risk Assessments, Perth, Western Australia.
- 4. DER 2015, Guidance Statement: Setting Conditions, Perth, Western Australia.
- 5. Department of Water and Environmental Regulation 2019, *Guideline: Industry Regulation Guide to Licensing*, Perth, Western Australia.
- 6. OPAM Consulting 2020, JD Organics Boonanarring Baseline Assessment (June 2020).
- 7. OPAM Consulting 2020, JD Organics Boonanarring Odour Assessment (October 2020).

# **Appendix 1: Application validation summary**

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)					
Application type					
Works approval					
Licence		Relevant works approval number:		None	
		Has the works approval been complied with?		Yes □ No □	
		Has time limited operations under the works approval demonstrated acceptable operations?		Yes □ No □ N/A □	
		Environmental Compliance Report submitted?		Yes □ No □	
		Date Report received:			
Renewal		Current licence number:			
Amendment to works approval		Current works approval number:			
Amendment to licence	$\boxtimes$	Current licence number:	L8887/2015/1		
		Relevant works approval number:	W6483/2020/1	N/A	
Registration		Current works approval number:		None	
Date application received		13/07/2021			
Applicant and Premises details					
Applicant name/s (full legal name/s)		JD Organics Pty Ltd			
Premises name		Boonanarring Composting Facility			
Premises location		276 Aurisch Road, Boonanarring			
Local Government Authority		Shire of Gingin			
Application documents					
HPCM file reference number:		DER2015/000261-1~4			
Key application documents (additional to application form):		Letter from IW Projects requesting to add K100 to licence Development Approval from Shire of Gingin Encycle – Licence Application 67A – Attachments (Supporting information supplied for the Works Approval)			
Scope of application/assessment					

Summary of proposed activities or changes to existing operations.

Increase production rate of compost and include K100 as a feedstock

### Category number/s (activities that cause the premises to become prescribed premises)

# Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity
Category 61: Liquid waste facility – premises on which liquid waste produced on other premises (other than sewage waste) is stored, reprocessed, treated or irrigated.	2,000 tonnes per annum	5,000 tonnes per annum
Category 61A: Solid waste facility – premise (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.	27,000 tonnes per annual period	44,500 tonnes per annum
Category 67A: Compost manufacturing and soil blending – tonnes per annual period premises on which organic material (excluding silage) or waste is stored pending processing, mixing, drying or composting to product commercial quantities of compost or blended soils.	27,000 tonnes per annual period	49,500 tonnes per annum

# Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes □ No ⊠	Referral decision No:  Managed under Part V   Assessed under Part IV
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes □ No ⊠	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes □ No ⊠	Reference No:

Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ⊠ No □	Certificate of title ⊠  General lease □ Expiry:  Mining lease / tenement □  Expiry:  Other evidence □ Expiry:
Has the applicant obtained all relevant planning approvals?	Yes ⊠ No □ N/A □	Approval: Development 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 □ No ⊠	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 □ No ⊠	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 ⊠ No □	Application reference No: Licence/permit No:GWL176152 (appears to have been decommissioned)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes □ No ⊠	Name: N/A Type: Has Regulatory Services (Water) been consulted? Yes □ No □ N/A ☒ Regional office:
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes □ No ⊠	Name: N/A Priority: N/A 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 □	Environmental Protection (Controlled Waste) Regulations 2004

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: information request  Date of classification: N/A