Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Works Approval

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

Works Approval Number	W2987/2025/1
Applicant	Eastern Metropolitan Regional Council
File number	APP-0026553
Premises	Red Hill Waste Management Facility 1094 Toodyay Road, RED HILL WA 6056 Legal description Lot 1 on Diagram 15239, Lot 2 on Diagram 68630, Lots 8, 9 and 10 on Deposited Plan 10872, Lot 11 on Diagram 69105 and Lot 12 on Deposited Plan 26468 As defined by the premises maps attached to the issued works approval
Date of report	5 September 2025
Decision	Works approval granted

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1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W2987/2025/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Application summary and overview of premises

On 29 April 2025, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works relating to a garden organics (GO) processing area at the premises.

The premises relates to the category and assessed production capacity under Schedule 1 of the Environmental Protection Regulations 1987 (EP Regulations) which are defined in works approval W2987/2025/1.The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W2987/2025/1.

GO has been processed at the existing location within Lot 12 of the premises since a 30 March 2020 amendment to licence L8889/2015/2. The Licence Holder has conducted composting at the premises to recycle green waste into mulch and compost since 1999, which was previously undertaken in the north section of Lot 1.

The GO processing area is proposed to be relocated to Lots 9 and 10 from the existing Lot 12, as Lot 12 has been planned for future Class III landfill operations. Lots 8, 9 and 10 are currently not within the prescribed premises boundary of L8889/2015/2.

The applicant is not proposing to accept additional tonnages of GO as part of this application.

The proposed infrastructure for the GO processing area is outlined as follows:

- Compacted ferricrete hardstand, which can be generally split into the three operational areas:
    - Receival area;
    - Processing area;
    - Final product storage area.
- A designated leachate evaporation pond lined with an HDPE geomembrane with an overflow into the premises' existing leachate evaporation pond system; and
- A surface water management system consisting of an open channel swale system connecting to the premises' existing surface water management system.

The majority of the GO accepted at the premises originates from:

- Residential properties and small businesses within the Eastern Metropolitan Regional Council's (EMRC) member councils;

- Parks and gardens landscaping activities; and
- Red Hill transfer station drop-offs.

GO Processing

Once a sufficient volume has accumulated, GO is shredded by a third-party contractor to a nominal size of 100 mm or smaller and placed into windrows. The windrows are watered to 50%-60% water content to initiate the pasteurisation process, then maintained between 50%-55% moisture.

The temperature is monitored to ensure the entire pile reaches between 55°C and 65°C for three consecutive weeks, with aeration managed by two front-end loaders. The size of the windrows is then reduced for curing purposes. Once the internal temperature drops to less than 45°C, the product is considered stable.

Depending on customer requirements, the mulch and soil improver products may be screened using an 8mm screen and blended. Final product is tested to ensure *Australian Standard 4454: Composts, soil conditioners and mulches* (AS 4454) specifications are achieved.

2.3 Part IV of the EP Act

The premises is currently subject to six Ministerial Statements (MS) under Part IV of the EP Act. In regulating the premises under Part V, Division 3 of the EP Act, the department will seek to avoid duplication of requirements imposed under Part IV. Pursuant to section 54(4) of the EP Act, the department will also not perform any duty relating to the granting of a works approval that is contrary to, or otherwise than in accordance with, a Ministerial Statement.

A summary of the respective Ministerial Statements is provided below:

- MS 274 (15 July 1992) and MS 1140 (1 July 2020) – Relate to the Red Hill Waste Management Facility Extension;
- MS 462 (21 November 1997) – Relates to the establishment of Class IV waste disposal cells at the Red Hill Waste Management Facility; and
- MS 976 (9 July 2014), MS 1092 (5 March 2019) and MS 1122 (20 January 2020) – Relate to the proposal to construct and operate a resource recovery facility at the Red Hill Waste Management Facility, for the processing of waste to produce energy, using either anaerobic digestion or gasification technology.

MS 274 is the statement applicable to the application, relating to the construction, operation and post closure management of waste handling and landfilling aspects at the Red Hill Waste Management Facility. The proposed GO processing area within Lots 8 and 9 are outside of the current MS 274 footprint. The applicant submitted an EPA Referral in December 2024 for the extension of MS274 into Lots 8, 9 and 10.

On 8 July 2025, the EPA, acting as delegate for the Minister for Environment, gave approval pursuant to s. 45C (1) (a) of the EP Act to amend MS 274 for the inclusion of Part Lots 8, 9 and 10 into the authorised extent of development footprint.

2.4 Native vegetation clearing

Implementation of the proposal requires clearing of a 60 m^2 area of vegetation to allow for an expansion to the existing access road into Lot 10.

Clause 9 of Schedule 6 of the EP Act provides an exemption for a clearing permit to allow clearing in accordance with a subdivision deemed approved by the responsible authority under the *Planning and Development Act 2005*, which may include clearing native vegetation for the purposes of constructing roads to provide access to or within the subdivision.

This works approval does not provide any implied authorisation for the clearing of native vegetation contrary to the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004.*

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 construction and operation which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Construction of GO hardstand and leachate pond.	Air / windborne pathway	Nil
Noise	Construction of GO hardstand and leachate pond	Air / windborne pathway	- Compliance with the Environmental Protection (Noise) Regulations 1997.
Operation			
Odour	Acceptance of GO feedstock and processing of GO Storage of leachate in leachate pond	Air / windborne pathway	- Consideration of meteorological conditions during material handling. - Regular monitoring of the GO stockpiles and processing windrows. - Regular maintenance and monitoring of the leachate treatment system. - Covering of waste during transport. - Odour complaint system and following up investigations/actions.
Leachate	Acceptance of GO feedstock and processing of GO Storage of leachate in leachate pond	Surface water or groundwater infiltration	- Leachate collection system within the hardstand area, designed using the criteria within the *Guideline: Better practice organics recycling*, including low-permeability compacted surfacing and a nominal 2% base slope.

Emission	Sources	Potential pathways	Proposed controls
	Storage of GO product		- Dedicated leachate evaporation pond that is lined with a geosynthetic lining system and connected to the premises' overall leachate evaporation pond system as a contingency. - Ongoing groundwater monitoring in accordance with the premises' Water Monitoring Procedure and Licence L8889/2015/2.
Contaminated stormwater	Acceptance of GO feedstock and processing of GO Storage of leachate in leachate pond Storage of GO product	Surface water or groundwater infiltration	- Implementation of a surface water management system, consisting of a series of drains that will direct water to an existing attenuation pond north of the development footprint. - Ongoing surface water monitoring and reporting.
Dust	Acceptance of GO feedstock and processing of GO	Air / windborne pathway	- Consideration of meteorological conditions during material handling. - Vehicles to maintain minimum speed limits. - Use of a water cart as necessary. - Covering of waste during transport. - Appropriate handling and unloading of waste to minimise dust generation.
Noise	Acceptance of GO feedstock and processing of GO	Air / windborne pathway	- Broadband reversing alarms. - Restricted operating hours. - Regular maintenance of mobile machinery and equipment.
Fire event	Storage of GO feedstock and product	Air / windborne pathway	- Implementation of the Site's Emergency Preparedness and Response Plan. - Fire response infrastructure and equipment, including 30,000L mobile water cart, fire extinguishers, stormwater dams, and fire breaks. - Staff trained in fire response techniques.
Vectors/ vermin	Storage of GO feedstock and product	Air / windborne pathway	- Biannual pest control program completed by a licensed animal pest control contractor. - Implementation of the EMS's feral animal management procedure.
Contamination or poor quality of products	Sale of final GO product to public	Application to land	- EMRC employs the Red Hill Composting Facility Quality Control System which has attained AS4454 certification. - Monitoring of initial feedstock, processing windrows and final end product to remove physical contaminants.

Emission	Sources	Potential pathways	Proposed controls
			- The final mulch product is tested at a minimum rate of one composite sample per 5,000 tonnes of product as per the *Guideline: Better practice organics recycling*.

3.1.2 Receptors

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

Table 2 and

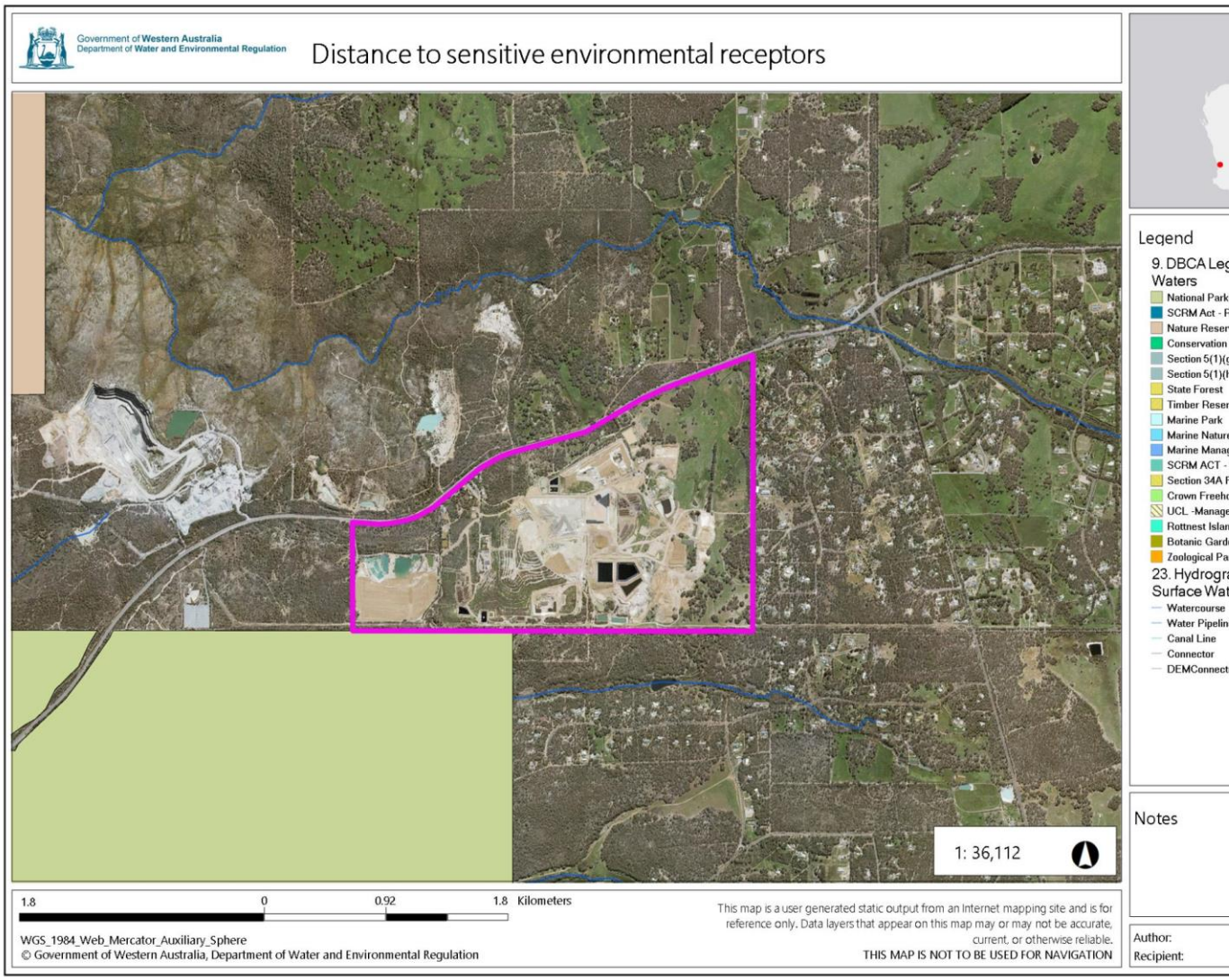

Figure 1 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental Siting* (DWER 2020)).

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

activity

Human receptors	**Distance from prescribed activity**
Residential Premises	The closest single residence is more than 900 m south of the new GO Processing Area.
Environmental receptors	**Distance from prescribed activity**
John Forrest National Park	Adjacent to the south
Priority Ecological Community	0.49 km west
Threatened Ecological Community	2.99 km west
One occurrence of specially protected species, two occurrences of threatened species, six occurrences of Priority 4	Occurs at site
Priority 3 public drinking water source area	8.05 km south
Christmas Tree Creek (minor watercourse)	0.32 km south
Susannah Brook (minor watercourse)	0.35 km north-east
Groundwater	Based on the topography across the new GO Processing Area, the separation distance from the highest static water level recorded is approximately 6 mbgl.
Acid sulfate soils	6.1 km south-west
Cultural receptors	**Distance from prescribed activity**
Aboriginal cultural heritage - Register (DPLH-099)	Occurs over western portion of site

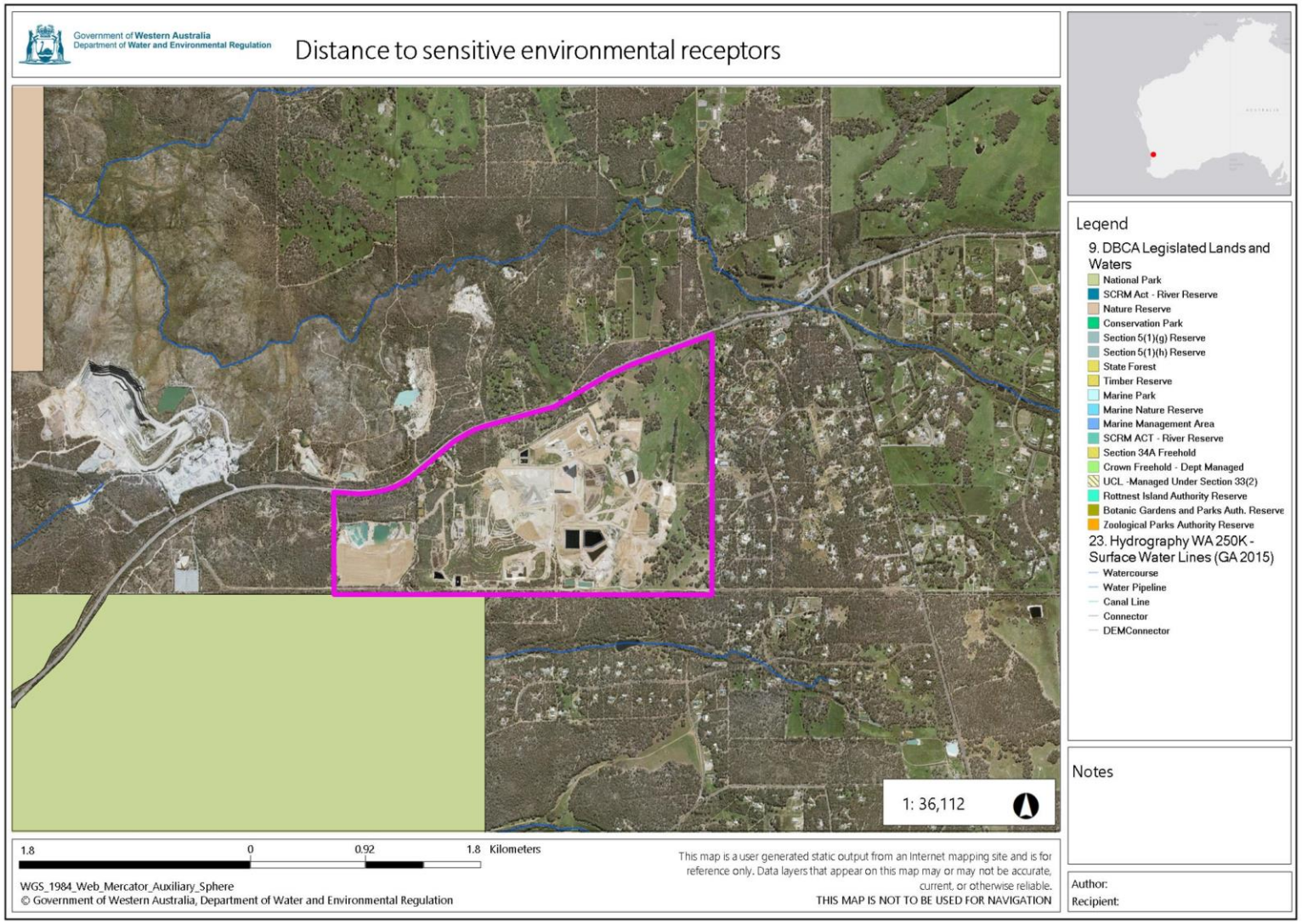

Figure 1: Distance to sensitive receptors

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant 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 applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Works approval W2987/2025/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

Table 3: Risk assessment of potential emissions and discharges from the premises during construction and operation

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Construction of GO hardstand and leachate pond.	Dust	Air / windborne pathway causing impacts to health and amenity	Residence 900m south of the new GO Processing Area	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	The delegated officer considers dust emissions are effectively regulated by the general provisions of the EP Act.
	Noise			Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	N/A	The delegated officer considers noise emissions are effectively regulated by the Environmental Protection (Noise) Regulations 1997.
Operation (including time-limited-operations operations)								
Acceptance of GO feedstock and processing of GO Storage of leachate in leachate pond	Odour	Air / windborne pathway causing impacts to health and amenity	Residence 900m south of the new GO Processing Area	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	Conditions 1, 6, 7 and 9 **Conditions 2, 3, 8 and 19**	The amendment of L8889/2015/1 dated 30 March 2020 assessed the processing of GO at Lot 12. No changes to the processing activity or throughput have been proposed as part of this works approval. Due to the distance between the existing and proposed GO locations being relatively minimal, no significant differences in local weather conditions and emission pathways are likely to occur. In addition, the proposed location is farther away from sensitive receptors. It is noted that the premises is situated within hilly terrain with potentially complex odour transport pathways influenced by the local topography. The delegated officer considers that the relocation of the GO processing area from Lot 12 to Lots 9 and 10 is not likely to change the risk profile for potential odour impacts on nearby sensitive receptors. The submission of an Environmental Compliance Report under condition 3 will allow the department to verify the effectiveness of infrastructure controls relating to leachate management, which assists in mitigating odour emissions. Existing regulatory controls for the current GO processing activities under L8889/2015/2 have been replicated, including composting processes. Should odour impacts become evident during time limited operations, further controls may be implemented in the subsequent licence amendment to mitigate odour emissions.

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Acceptance of GO feedstock and processing of GO	Dust	Air / windborne pathway causing impacts to health and amenity	Residence 900m south of the new GO Processing Area	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 19	The delegated officer considers that the works approval holder's dust controls and the distance from the GO processing hardstand to receptors provide adequate mitigation of dust emissions.
Acceptance of GO feedstock and processing of GO	Noise	Air / windborne pathway causing impacts to health and amenity	Residence 900m south of the new GO Processing Area	Refer to Section 3.1	C = Slight L = Possible **Low Risk**	Y	Condition 19	The delegated officer considers noise emissions are effectively regulated by the Environmental Protection (Noise) Regulations 1997.
Acceptance of GO feedstock and processing of GO Storage of leachate in leachate pond Storage of GO product	Potentially contaminated stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Christmas Tree Creek 0.32km south Susannah Brook 0.35km north-east Groundwater approximately 6 mbgl.	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	Conditions 1, 6, 7 and 9 **Conditions 2 and 3**	The submission of an Environmental Compliance Report under condition 3 will allow the department to verify the effectiveness of infrastructure controls relating to stormwater management.
Acceptance of GO feedstock and processing of GO Storage of leachate in leachate pond Storage of GO product	Leachate	Surface water or groundwater infiltration potentially causing deterioration of surface water and groundwater quality and impacts to freshwater and terrestrial ecosystems	Christmas Tree Creek 0.32km south Susannah Brook 0.35km north-east Groundwater approximately 6 mbgl.	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Y	Conditions 1, 6, 7 and 9 **Conditions 2 and 3**	The submission of an Environmental Compliance Report under condition 3 will allow the department to verify the effectiveness of infrastructure controls relating to leachate management. Based on the depth to groundwater and the permeability of the leachate management infrastructure, the delegated officer considers that the risk of gross seepage of contaminants in soil to groundwater is mitigated by the applicant's controls.
Storage of GO feedstock and product	Fire event - Particulates, noxious gases, smoke and ash	Air / windborne pathway causing impacts to health and amenity	Residence 900m south of the new GO Processing Area	Refer to Section 3.1	C = Major L = Rare **Medium Risk**	Y	Conditions 1, 6, 7 and 9 **Conditions 2 and 3**	Existing regulatory controls for the current GO processing activities under L8889/2015/2 have been replicated, including windrow dimensions and separation. L8889/2015/2 provides fire management controls for the premises. The delegated officer considers the risks from fire events are effectively regulated by the applicant's infrastructure and operational controls.
	Fire event - firewater	Discharge to surface water or infiltration to groundwater causing degradation of	Christmas Tree Creek 0.32km south Susannah Brook	Refer to Section 3.1	C = Major L = Rare **Medium Risk**			

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
		water quality and potential impacts to down-gradient ecosystems	0.35km north-east Groundwater approximately 6 mbgl.					
Storage of GO feedstock and product	Vectors/ vermin	Air / windborne pathway causing impacts to health and amenity	Residence 900m south of the new GO Processing Area	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 19	The delegated officer considers impacts from vectors are effectively regulated by the general provisions of the EP Act. In making this decision, the delegated officer has considered the effective application of the applicant's controls at the premises.
Sale of final GO product to public	Contamination or poor quality of products	Application to land Private and commercial compost users becoming exposed to contaminants (e.g. pathogens) in poor quality products.	Private and commercial compost users	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	**Conditions 12-17**	The delegated officer considers that the risks of contamination from compost products that are not 'fit for purpose' are effectively regulated through regulatory controls within the works approval. These include the monitoring of product quality and concentration limits for product quality, based on the requirements of the *Guideline: Better practice organics recycling*.

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

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

4. Consultation

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

Table 4: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website	None received	N/A
Local Government Authority advised of proposal on 21 May 2025	The City of Swan provided no comments on the application.	N/A
Applicant was provided with draft documents on 17 July 2025	The Applicant responded on 22 August 2025, providing updated design drawings based on: - Increase the size of the leachate pond. Operational capacity of the leachate pond increased to 4,337m^3. - Removal of the leachate swale in the north of the leachate pond. - Construction of a bund in the south, replacing the previous drain.	The delegated officer considers that the amended design drawings do not change the risk profile of the assessment and have been included within the works approval.

5. Conclusion

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

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia