

# Environmental Assessment Report

## **Dulverton Organics Transformation Project** *Youngmans Road, Railton*

Dulverton Regional Waste  
Management Authority, trading as  
Dulverton Waste Management

*November 2022*



ENVIRONMENT PROTECTION AUTHORITY

## Environmental Assessment Report

Proponent	Dulverton Regional Waste Management Authority, trading as Dulverton Waste Management (DWM)
Proposal	Dulverton Organics Transformation
Location	Youngmans Road, Railton, accessed from Dawsons Siding Road, Latrobe TAS 7307
Class of Assessment	2B
PCE no.	10889
Permit Application No.	DA 304/2021 (Latrobe Council)
myDAS Folder No.	21/2416
myDAS Document No.	D22-336543

## Assessment Process Milestones

Date	Milestone
18 May 2021	Notice of Intent lodged
27 July 2021	Guidelines Issued
8 December 2021	Permit Application submitted to Council
15 December 2021	Application received by the Board
17 August 2022	Start of public consultation period
14 September 2022	End of public consultation period
27 October 2022	Date draft conditions issued to proponent
18 November 2022	Statutory period for assessment ends

## Glossary/Acronyms

Term	Detail
AS	Australian Standard
Board	Board of the Environment Protection Authority
CAS	Conservation Assessments and Wildlife Services Section of NRE Tasmania
DORF	Dulverton Organics Recycling Facility (existing facility)
DOT	Dulverton Organics Transformation (proposed facility)
DWM	Dulverton Waste Management
EER	Environmental Effects Report
EIA	Environmental impact assessment
EMPCA	<i>Environmental Management and Pollution Control Act 1994</i>
EMPCS	Environmental Management and Pollution Control System
FOGO	Food Organics and Garden Organics
LUPAA	<i>Land Use Planning and Approvals Act 1993</i>
NOI	Notice of Intent
NRE	Department of Natural Resources and Environment Tasmania
RMPS	Resource Management and Planning System of Tasmania
SD	Sustainable development

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## Report Summary

This report provides an environmental assessment of the Dulverton Organics Transformation (DOT) project by Dulverton Regional Waste Management Authority.

The proposal involves construction and operation of a new in-vessel composting facility, which will replace the open windrow composting currently undertaken at the site. Annual production of compost remains the same as currently approved (25,000 tonnes per annum) but approval is being sought to include several new feedstocks and to consolidate feedstocks approved under separate environmental approvals into the one permit.

This report has been prepared based on information provided in the permit application and Environmental Effects Report (EER). Relevant government agencies and the public were consulted, and their submissions considered as part of the assessment.

Appendix I contains the environmental permit conditions for the proposal.

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## I. Approval Process

The Board of the Environment Protection Authority (the Board) received a Notice of Intent for this proposal on 18 May 2021.

An application for a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act) for the proposal was submitted to Latrobe Council by ERA Planning and Environment on behalf of the Dulverton Regional Waste Management Authority on 8 December 2021.

The proposal is defined as a 'level 2 activity' under clause 3(d)(i), Schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act), being resource recovery (conduct of works for production of compost or mushroom substrate).

Section 25(1) of the EMPC Act required Council to refer the application to the Board for assessment under the Act. The application was received on 15 December 2021.

The Board required that information to support the proposal be provided in the form of an Environmental Effects Report (EER), prepared in accordance with the Guidelines issued by the Board on 27 July 2021. Several drafts of the EER were submitted to EPA for review against the Guidelines before it was finalised and accepted on behalf of the Board on 10 August 2022.

The EER was released for public inspection for 28 days on 17 August 2022. Advertisements were placed in *The Advocate* and on the EPA website. The EER was also referred to relevant government agencies for comment. No public representations were received.

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## 2. SD Objectives and EIA Principles

The proposal must be considered by the Board in the context of the objectives of the Resource Management and Planning System of Tasmania (RMPS), and the Environmental Management and Pollution Control System (EMPCS). Both sets of objectives are specified in Schedule I of the EMPCA.

The functions of the Board are to administer and enforce the provisions of the EMPCA, and to use its best endeavours to further the RMPS and EMPCS objectives. The Board must assess the proposal in accordance with the Environmental Impact Assessment Principles defined in Section 74 of the EMPCA.

### 3. The Proposal

The main characteristics of the proposal are summarised below. A detailed description of the proposal is provided in Section 3 of the EER.

#### Summary of the main characteristics of the proposal

##### Activity

Production of up to 25,000 tonnes of compost per year in an in-vessel composting facility.

##### Location and planning context

<b>Location</b>	Youngmans Road, Railton, 7305 (accessed from Dawsons Siding Road, Latrobe), as shown in Figure 1 and Figure 2.
<b>Land zoning</b>	Utilities under the <i>Latrobe Interim Planning Scheme 2013</i> .
<b>Land tenure</b>	Private freehold.

##### Activity site

<b>Land Use</b>	Open windrow composting has been undertaken on the site since 2003.
<b>Topography</b>	The site sits within a valley floor and is generally flat with some gentle undulations.
<b>Geology</b>	The site is underlain by Quaternary aged sediment (clay) and talus. Ordovician aged limestone is mapped in places on the western side of the site.
<b>Hydrology</b>	Tributaries of Caroline Creek are located to the north and east of the site with one tributary running across the north-western corner of the site.
<b>Natural Values</b>	The Dulverton Organics Transformation project (DOT) is located within the Railton Karst area.

##### Location region

<b>Climate</b>	Rainfall is approximately 900 mm per annum. Wind direction is predominantly westerly with north and south westerlies sub-dominant.
<b>Surrounding land zoning, tenure and uses</b>	Surrounded by private freehold, except to the west and southwest which is permanent timber production zone land. Surrounding land is zoned as rural resource under the Latrobe and Kentish Interim Planning Schemes.
<b>Species of conservation significance</b>	Caroline Creek and its tributaries are potential habitat for the giant freshwater crayfish ( <i>Astacopsis gouldi</i> ), central north burrowing crayfish ( <i>Engaeus granulatus</i> ) and the hydrobiid Snail (Minnow River) ( <i>Beddomeia turnerae</i> ). Potential habitat also exists for the Eastern barred bandicoot ( <i>Perameles gunnii</i> ), Tasmanian devil ( <i>Sarcophilus harrisi</i> ) and Swift parrot ( <i>Lathamus discolor</i> ). Erect sneezeweed ( <i>Centipeda cunninghamii</i> ) and fragrant hempbush ( <i>Gynatrix pulchella</i> ) are known to occur near the site. <i>Eucalyptus ovata</i> forest and woodland is potential habitat for the Swift parrot.

## Proposed infrastructure

<b>Major equipment</b>	<ul style="list-style-type: none"> <li>• Slow-running dual-shaft shredder</li> <li>• Acid scrubber with storage tank</li> <li>• Wastewater treatment plant</li> <li>• Multistar screening machine</li> <li>• Vacuum hoods</li> <li>• Overbelt magnet</li> <li>• Biosolid mixer</li> <li>• Food de-packager</li> <li>• Tunnel fans (single-inlet centrifugal fan, suitable for composting)</li> <li>• Conveyors</li> <li>• Wheel loader</li> <li>• Mobile drum screen</li> <li>• Screenpod vacuum</li> <li>• Biofilter</li> <li>• Unscreened and screened leachate pumpstations</li> </ul>
<b>Other infrastructure</b>	<ul style="list-style-type: none"> <li>• Composting vessels / tunnels</li> <li>• Tunnel hall</li> <li>• Amenities building</li> <li>• Various trucks for delivery of feedstocks onsite</li> <li>• Various trucks for delivery of compost offsite</li> <li>• Process and fire water tanks</li> <li>• Leachate storage tanks</li> </ul>

## Inputs

<b>Water</b>	Rainwater will be captured from the facility buildings. Water can also be pumped from the landfill site if required.
<b>Energy</b>	<ul style="list-style-type: none"> <li>• Diesel fuel for running machinery and equipment onsite</li> <li>• Diesel fuel for transport of feedstock to the site and final product offsite</li> <li>• Diesel fuel for vehicles / machinery associated with construction</li> <li>• Electricity will be utilised for the in-vessel composting process</li> </ul>
<b>Other raw materials</b>	<ul style="list-style-type: none"> <li>• Building materials for construction of the facility</li> <li>• Feedstocks for composting process</li> <li>• Oils and greases for plant and equipment maintenance</li> <li>• Gas cylinders for welding and/or cutting steel</li> <li>• Sulphuric acid</li> </ul>

## Wastes and emissions

<b>Liquid</b>	<ul style="list-style-type: none"> <li>• Leachate from the composting process</li> <li>• Ammonium sulphate from the acid scrubber</li> <li>• Stormwater runoff</li> <li>• Sanitary wastes from staff amenities</li> </ul>
<b>Atmospheric</b>	<ul style="list-style-type: none"> <li>• Dust from internal and external traffic, during construction and operation</li> <li>• Blow-off from compost product stockpiles</li> </ul>

<b>Solid</b>	<ul style="list-style-type: none"> <li>• There will likely be a range of solid wastes generated during the construction phase of the project.</li> <li>• Feed materials are likely to contain a range of foreign materials not suitable for composting, such as concrete, plastics and metal.</li> <li>• There is also potential for out-of-specification compost being generated requiring disposal.</li> </ul>
<b>Controlled wastes</b>	<ul style="list-style-type: none"> <li>• Waste engine oil.</li> <li>• Staff amenities will generate sanitary waste.</li> </ul>
<b>Noise</b>	From onsite plant/equipment, the wheel loader and vehicles during construction and operation.
<b>Greenhouse gases</b>	<p>There will be an increase in greenhouse gas emissions generated during the construction phase from vehicles and machinery.</p> <p>Once operational the new facility will primarily rely on electricity to operate rather than the diesel fuel driven machinery currently used for turning windrows.</p> <p>The avoidance of organic wastes to landfill remains the same as previously, however, emissions are captured and treated before being vented to the atmosphere with the upgrade to in-vessel composting.</p>

### Construction, commissioning, and operations

<b>Proposal timetable</b>	<ul style="list-style-type: none"> <li>• Early works – HV Transformer and incoming power upgrades Sep – Oct 2022</li> <li>• Procurement Sep 2022 – Apr 2023</li> <li>• Commence onsite Nov 2022</li> <li>• Earthworks Nov 2022 – May 2023</li> <li>• In-situ concrete Jan – Apr 2023</li> <li>• Precast panels July – May 2023</li> <li>• Steelwork erection June 2023</li> <li>• Cladding July 2023</li> <li>• Plumbing installation Feb – Aug 2023</li> <li>• Electrical installation Feb – Aug 2023</li> <li>• Equipment installation June – Aug 2023</li> <li>• Testing Sept 2023</li> <li>• Commissioning Oct 2023 – Jan 2024</li> </ul>
<b>Operating hours (construction)</b>	0700 to 1700 hours Monday to Friday
<b>Operating hours (ongoing)</b>	24 hour operation of composting tunnel with automatic controls and remote monitoring. Facility will be staffed for feedstock deliveries: 0700 to 1700 hours Monday to Saturday

Figure 3 below shows a site plan for the DOT facility.

Figure 4 below shows a 3D render of the proposed DOT facility.

Figure 5 below shows an overview of the proposed process.

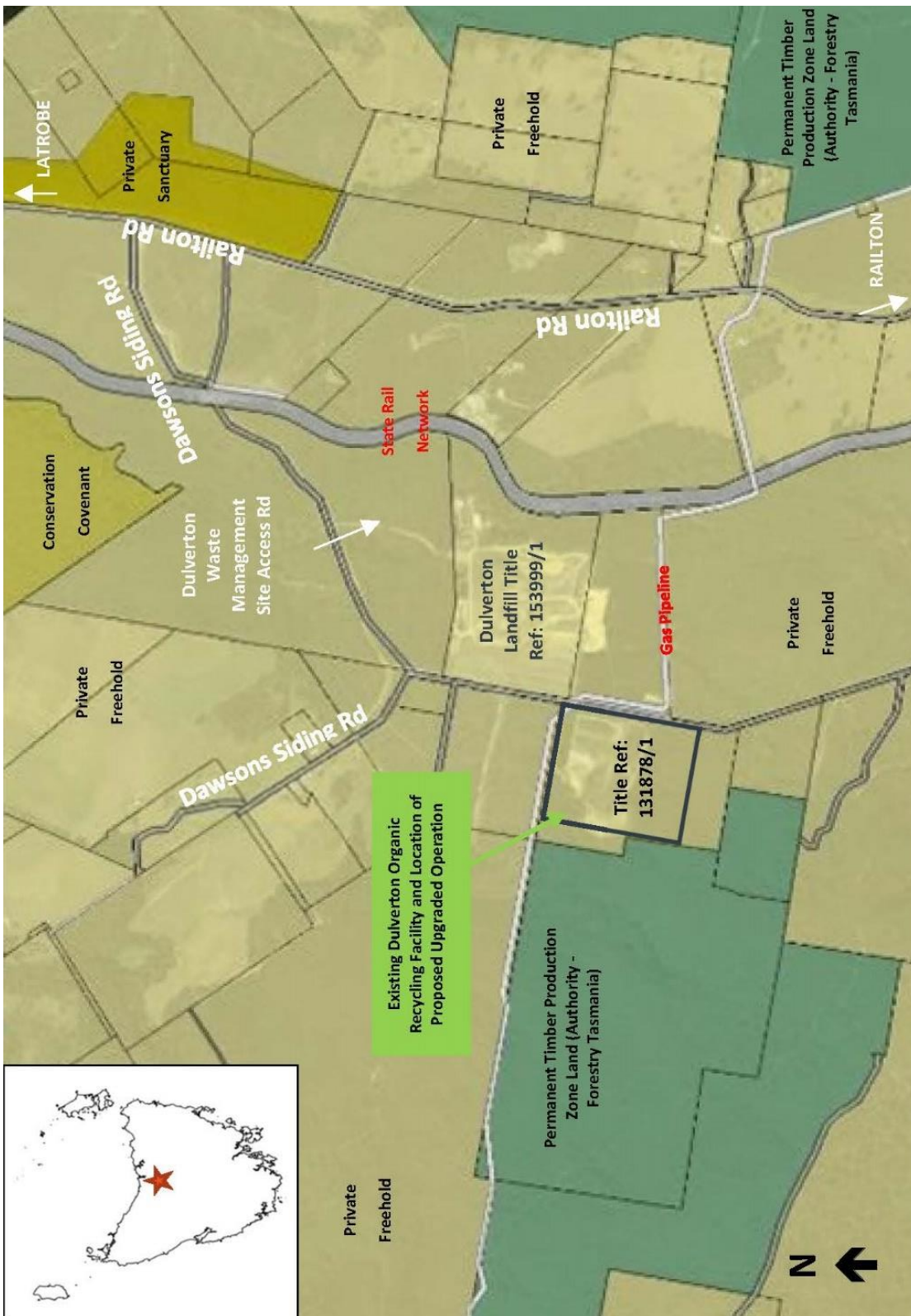


Figure 1: Proposed location (Figure 6 of the EER)



**Figure 2: Site location (Figure 7 of the EER).**

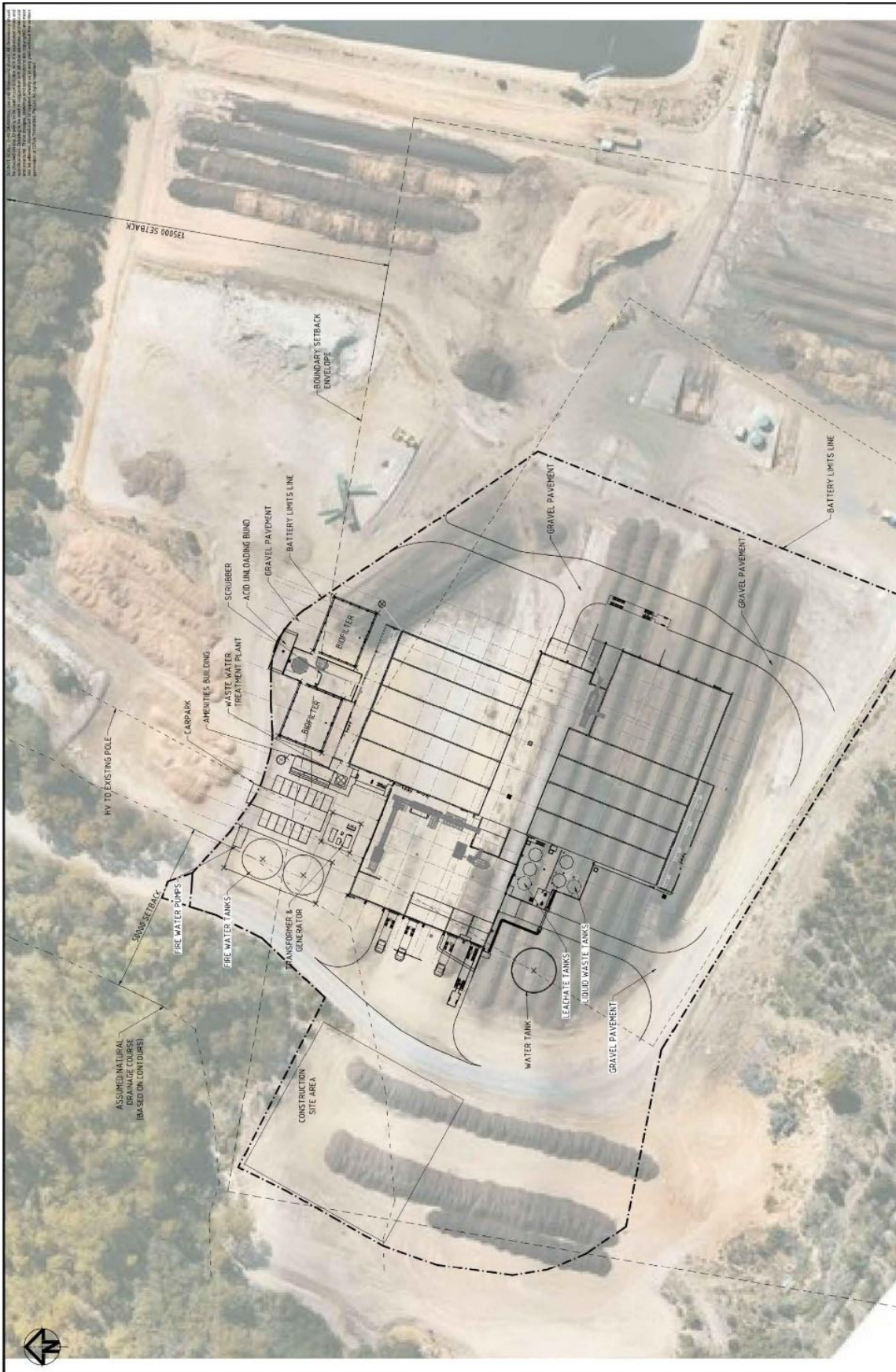


Figure 3: Site plan (Figure 1 of the EER).



**Figure 4: 3D render of proposed facility (Figure 2 of the EER).**

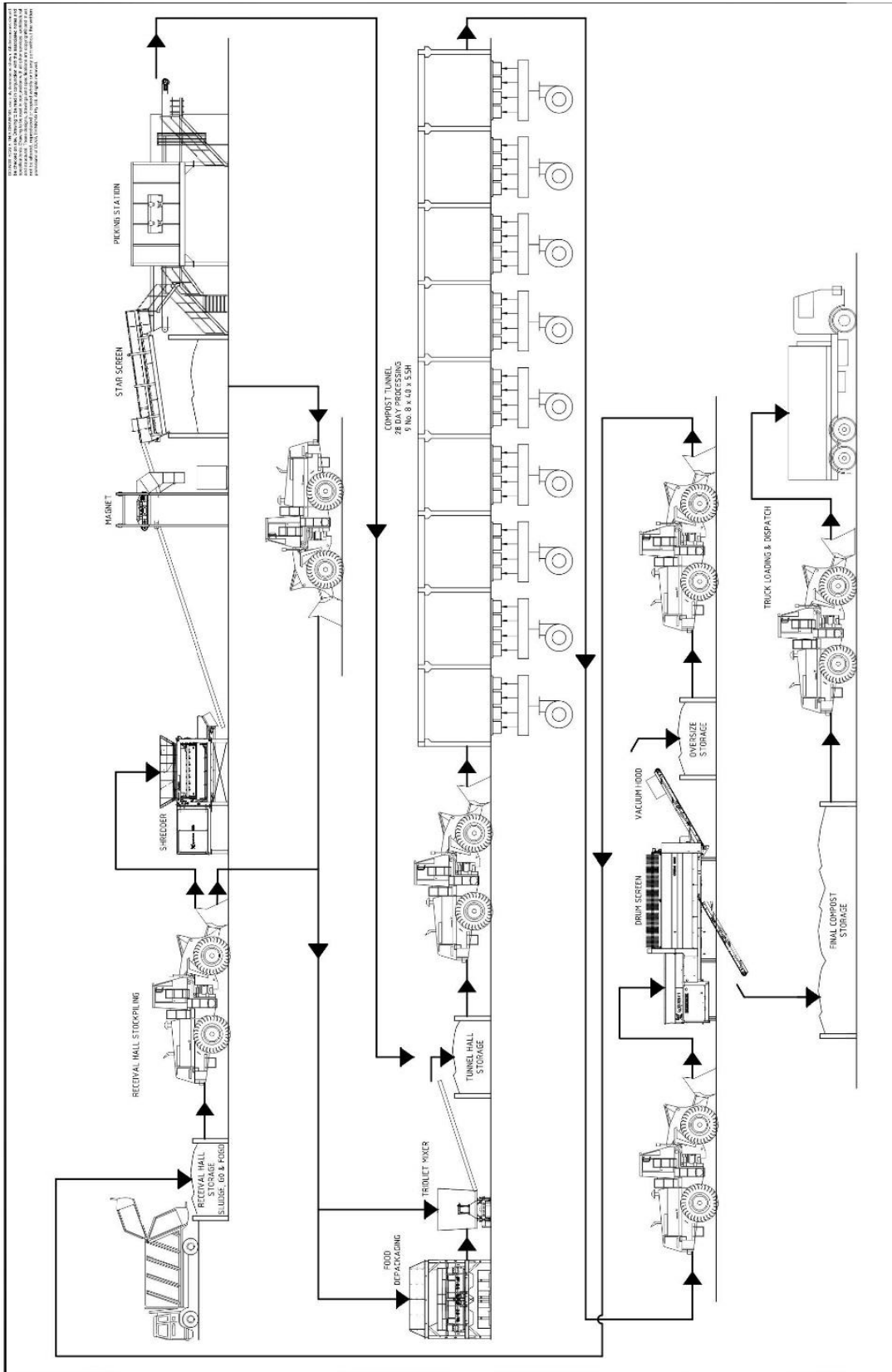


Figure 5: Process overview (Figure 4 of the EER).

## 4. Project Rationale and Alternatives

The EER provides the following information in relation to the project rationale and alternatives considered, as well as potential social and economic benefits and costs.

### Justification for the Project

Substantial organic recycling is being facilitated through numerous composting facilities across Australia, each varying in size, feedstock input and processing method. However, they all have the same underlying objective, which is to recover the value of organic waste materials by processing a product for safe and beneficial reuse.

There is extensive literature available on composting, and the role this approach plays in resource recovery strategies. It is now being realised that the millions of tonnes of organic waste landfilled each year is a lost opportunity particularly in terms of creating value and mitigating greenhouse gas emissions. The EER states that composting facilities like the existing Dulverton Organics Recycling Facility (DORF) have been instrumental in promoting the value of resource recovery, and Dulverton Waste Management (DWM) is taking the next step towards environmental sustainability through a process of continuous improvement, including recognising when the current approach needs to be reviewed.

Ongoing challenges at the existing DORF especially around odour and leachate management, as well as operational risks, financial viability, and future capacity requirements, led to a review in 2018 to determine if DWM should consider upgrading the current composting process to an enclosed system using advanced technology. The review identified that existing site challenges could only be addressed through implementation of modern technology.

### Alternatives Considered for the Project

According to the EER DWM has sought the most practicable approach to upgrading the existing DORF, through a comprehensive review of available options. Three different composting solutions, including windrowing under cover, aerated floors, and in-vessel composting, were compared. It was concluded that the most cost-effective way to deliver the project was a high technology solution with the smallest footprint.

The initial project concept was to develop the facility in two stages. Stage A would allow processing of 40,000 tonnes/year of feedstock, with Stage B increasing to an ultimate 50,000 tonnes/year. On further investigation of the phased approach, it was determined that building a covered windrow area to comply with Stage A requirements would result in significant wasted capital when upgraded in the future to a Stage B compliant system, and that the best solution from a cost/capital perspective was to combine the two stages into a single design from day one.

The same conclusion was drawn in dealing with the broad range of waste streams which make this project challenging from a process perspective. The ratio of liquid/sludge to green waste/FOGO is almost 50:50. The project is therefore set apart from a normal composting process and requires a high-tech and robust solution to allow for a constant quality compost output, while minimising impact on the environment.

In summary, the EER contends that a rigorous and well considered analysis has been undertaken to ensure the option pursued is one that will deliver a range of benefits to all stakeholders. It also notes that in February 2021, DWM finalised a Request for Tender decision with COVA-Haywards (COVA) for design of an in vessel composting facility.

### Project Benefits

According to the EER the design and equipment proposed will provide best practice solutions for safe and sustainable treatment of a wide range of municipal and industry wastes and will address current environmental challenges associated with the existing operation. Odour and leachate management are primary drivers for the proposal which will result in significant benefit to the local community through removal of odour sources and to the environment through containment of leachate. The EER further contends that best practice design will facilitate recovery of the full value of organic waste materials by providing a product for safe and beneficial reuse.

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## Project benefits and strategic links

The EER outlines the following project benefits and strategic links:

- Avoids landfill greenhouse gas emissions, extends landfill life, and generates 22,000 tonnes per annum of valuable compost by-product for Tasmanian agricultural, nursery, government, and residential re-use.
- Delivers best practice leachate and odour management while continuing to meet both the *Australian Standard for Compost and Mulch (AS4454)* and EPA conditions.
- Delivers against the Tasmanian Government Waste Action Plan 2019 to reduce the volume of organic waste sent to landfill by 25% by 2025 and 50% by 2030 by diverting up to 50,000 tonnes per annum.
- Is aligned with the Cradle Coast Waste Management Group Strategy to address the 46% of North-West landfill waste classified as organics and assisting the introduction of a regional-scale organics kerbside collection and processing service for 40,000 households.
- Allows better mixing, aeration and higher evaporation compared to current compost processes, creating a shorter composting time, and smaller composting area.
- Strengthens Tasmania's biosecurity capabilities (e.g., fruit fly response and salmon mortalities). Strengthens quarantine capabilities and delivers TasWater Trade Waste Policy solutions for biosolids and grease-trap waste.
- Is an implementation-ready, major investment project creating in the order of 90-100 construction related jobs in Tasmania and underpinning over 1,000 existing food manufacturing jobs. This aligns with the Tasmanian Government policies of building Tasmania's infrastructure for the 21st century, essential service delivery and more jobs for regional Tasmania. The project was announced as a Project of Regional Importance in June 2020 by North-West Tasmania's Regional Economic Development Steering Group and Cradle Coast Authority Board.

## Economic

Both the construction and operational phases of the DOT are considered by the proponent to offer a significant regional economic contribution. While no formal economic modelling has been conducted, the following estimates are relevant:

- Capital value of design and construction is estimated at \$22.6M.
- Ongoing contribution in terms of direct employee wages is in the order of \$300,000.
- Economic contribution to the Region through ancillary services and support of other businesses is estimated at \$10,000,000.

DWM has stated it has engaged local companies for the design and approval phases of the project and intends to continue to apply a 'source local' approach where the skills and capabilities are available.

## Social

The EER states the proposed DOT will create 90-100 jobs during the construction phase and, while operating, the upgraded facility will require four ongoing positions and support twenty indirect, ongoing positions in the northwest of Tasmania. The skills base will shift slightly with the move from windrow composting to fully contained and automated composting. This will require training and support in process control skills.

According to the EER, the proposal provides assurance of a sustainable outlet for organic wastes arising from various industries and extends the life of the adjacent landfill by diversion of waste to resource. This underpins over 1,000 existing food manufacturing jobs and letters of support from commercial customers are available to confirm the vital role of this activity. This will assist those entities to be sustainable into the future and help to protect indirect employment and economic contributions to the region.

On a direct local level, the EER states the development also addresses the primary subject of complaints through modern odour management. This is likely to provide close neighbours with relief from periodic nuisance and is socially responsible.

## 5. Public and Agency Consultation

No public submissions were received during the consultation period.

The EER was also referred to several government agencies with an interest in the proposal, including:

- Conservation Assessments & Wildlife Services, Natural Resources and Environment Tasmania
- Biosecurity Tasmania, Natural Resources and Environment Tasmania
- Department of State Growth
- Sustainable Timber Tasmania
- Latrobe Council
- Kentish Council

Specialist advice on the EER was also provided by:

- Regulatory Officer, Environment Protection Authority
- Scientific Officer (Air), Environment Protection Authority
- Scientific Officer (Water), Environment Protection Authority
- Scientific Officer (Noise), Environment Protection Authority

Appendix I of this report contains a summary of the government agency submissions received.

According to the EER, DWM has conducted briefings and site tours of the Dulverton Organics Recycling Facility upgrade with stakeholders from State and Federal Parliament and associated Departments. Briefing documents have been submitted to the Tasmanian Government regarding the DOT project, including a Business Case for Treasury and TasCorp, and a Regional Investment Proposal. Consultation was also undertaken as part of the DWM Building Better Regions applications.

The local community and stakeholders have been kept informed of the project's progress as part of an ongoing stakeholder engagement program that includes the following elements:

- Residents have been written to and provided with the opportunity to opt into receiving updates as the project progresses.
- DWM publishes periodic newsletters that include project updates.
- Stakeholders can access information on the DWM website at <https://dulverton.com.au/compost/facility-upgrade/> which includes:
  - a description of the proposed facilities and project updates, including external and internal flythroughs;
  - project funding details;
  - periodic DOT Project Update Newsletters, the most recent issue being July 2021;
  - explanation of the public right to participation and a link to the EPA assessment process to allow for ready access to documents when the assessment was open for consultation; and
  - media releases and news articles.

The EER also states that stakeholder consultation will be ongoing throughout the project.

## 6. Evaluation of Key Environmental Issue

Air quality was identified as the key environmental issue for detailed evaluation in this report and is discussed in the following subsections.

### 6.1 Air quality

#### 6.1.1 Description

Air emissions, including particulates and odour, have potential to cause environmental harm, particularly to sensitive uses, including residences, if not appropriately mitigated and managed.

The predominant land uses in the vicinity of the Land are forestry, agriculture, and a landfill. The nearest sensitive receptors (residences) are located approximately 835 m to the north and 1.4 km east of the Land. Odorous emissions to air from operation of the in-vessel composting facility have the potential to cause environmental nuisance.

The following potential odour sources were identified as part of the proposal: the two biofilters, receive and tunnel halls (treated through the biofilters), green waste / timber stockpiles (pre-shredded), final compost screening (loading product into trucks) and storage of oversize material after screening.

The proposal includes cessation of open windrow composting, and construction and operation of an in-vessel composting facility where delivery, mixing and composting of wastes occurs within an enclosed building with a negative pressure air capture and treatment system. The captured air is passed through an acid scrubber to remove ammonia and two biofilter units help to reduce and alter the composition of odour being emitted from the activity.

The EER states that reduction of odour emissions from the activity is the main driver behind the proposed upgrade as there has been a history of odour complaints associated with the site.

The green waste and oversize stockpiles are the two main potential odour sources that are not captured by the negative pressure air capture and treatment system. The EER states that the risk of environmental nuisance from these sources is considered low and will essentially remain unchanged from current practices, apart from where they are located onsite.

Section 4.1 (Part C) of the EER describes the existing environment and current odour management measures employed for the open windrow composting operation. Section 4.2 (Part C) of the EER summarises the Odour Impact Assessment (the Odour Assessment) contained in Annexure B to the EER, which included atmospheric dispersion modelling for the current operation and the proposed upgraded operation.

The Odour Assessment considered numerous scenarios for the proposed facility to consider the various aspects of the proposal and how this may impact odour emissions from the site. The two key scenarios considered were the normal operating scenario (2A4) which included all odour sources, and scenario 2C2 which looked at the biofilter in isolation emitting 750 odour units (OU).

The EER concluded that, while emissions at the site boundary will not meet the 2 OU requirement of the Tasmanian *Environment Protection Policy (Air Quality) 2004 (Air EPP)*, it is not likely to cause environmental nuisance or environmental harm and represents a significant improvement on the current operations.

Dust emissions are expected to be limited to those generated by internal traffic movements. There is also potential for dust emissions from the green waste stockpile, from the final screening and storage of product and loading of product onto trucks. Compost stockpiles will be located in an enclosed area that has natural ventilation. The EER states that the risk of fugitive dust emissions from these sources is likely to be low and a significant improvement on the current operation which has product stockpiles located out in the open.

## 6.1.2 Management measures

The EER makes several commitments in relation to mitigating potential risks from odour emissions, including:

- Installation of an odour management system to contain and treat odorous emissions through acid scrubbing and biofiltration.
- Installation of sumps and leachate return system to contain flows with potential for odour.
- Preparation of a Biofilter Commissioning and Management Plan.
- Sampling of the biofilters during the commissioning phase to confirm their design requirements and performance.
- Development of an Operational and Maintenance Manual to support the operation and process control of the central air treatment system, leachate sump and bin management, and any compost management aspects identified through the commissioning phase.
- Engagement of an air quality expert to monitor biofilter output for first two years, initially on a quarterly basis, with a reduction in frequency as biofilter operation becomes stable.

Table 7 of the EER in section 4.2 provides a list of potential odour sources and specific mitigation measures that will be put in place to reduce the risk of impact from air emissions.

## 6.1.3 Public and agency comment and responses

No public submissions were received in relation to air quality.

EPA Air Specialists raised concerns that the documentation provided did not adequately address concerns they had previously raised, regarding the potential of the proposed in-vessel composting facility to cause environmental nuisance.

EPA Air Specialists also noted that the proposal includes technology that is new to Tasmania, that it is understood there are some facilities of this type currently in Australia, but it is unknown whether any of these facilities accept such a broad range of putrescible wastes.

While the technology provides a significant opportunity for improvement in treating odorous wastes, it is not clear that the proposed design would minimise odour emissions from the facility to the extent that environmental nuisance would not be caused.

The air dispersion modelling results provided in the documentation contain several internal discrepancies and there is some doubt regarding the validity of the calculation method of odour emission rates for several sources. Furthermore, some of the operational parameters that are relevant to the interpretation and confidence in the predictions of the modelling for various scenarios are not clearly detailed in the modelling report. For these reasons, the EPA Air Section expressed reduced confidence in the predictions of the modelling as presented in the EER.

Given the above, the EPA Air Section has recommended that after the facility becomes operational, odour sampling be conducted and the atmospheric dispersion modelling be re-run according to the methodologies approved by the Director to confirm the likely extent of impact of odour emissions from the activity, and to establish if any additional odour mitigation measures would be required.

#### 6.1.4 Evaluation

Conditions **A1**, **A2** and **A3** are standard conditions. Condition **A1** requires that vehicles carrying loads which may blow, or spill material must be equipped with effective control measures to prevent escape of the materials when they leave the Land or travel on public roads.

Condition **A2** requires that dust emissions from the Land must be controlled to the extent necessary to prevent environmental nuisance beyond the boundary of the Land. Potential sources of dust will be reduced with the proposed upgrade, for example, product stockpiles and screening are proposed to be moved to an enclosed area and there will no longer be windrows of compost out in the open that have the potential to be sources for dust emissions. There have not been any significant issues with dust on site, and the existing measures currently employed will continue to be used for the upgraded facility and are considered adequate to manage potential risks from dust emissions.

Condition **A3** is another standard condition stating that the person responsible must institute such odour management measures as are necessary to prevent odours causing environmental nuisance beyond the boundary of the Land. Should there be complaints received about the upgraded facility, this condition provides scope for the Director to require additional mitigation measures to manage odour emissions. This could range from direction to change the process/management of the facility to a direction to add additional odour scrubbing/filtration if required.

Condition **CNI** is also relevant in requiring a Construction Environmental Management Plan (CEMP). While odour and dust are not expected to be significant issues during the relatively short construction phase, there are requirements for the CEMP to address potential dust and odour issues and propose appropriate mitigation measures.

Condition **G6** applies to dust and odour, as well as noise and other aspects of the operation. This requires a complaint register to be maintained for the site, which is also done for the current operations.

The EPA Air Section has raised concerns around the modelling given there were some inconsistencies in the EER, and Odour Impact Assessment Report included in Annexure B of the EER. To allow for the lack of confidence in modelling, a suite of conditions has been imposed requiring emission sampling and re-running the atmospheric dispersion modelling to confirm the likely extent of impact of odour emissions from the activity once operational.

The operation and maintenance of the facility is considered critical to its success and the Proponent is required to develop an Operational Procedures Manual (OPM) to detail the specific procedures that will ensure compliance with the permit conditions. Much of this detail is contained within the EER, but for operational purposes a standalone document is required for operators to ensure procedures are followed. It is expected that this document will evolve over time as optimisation of the facility and associated procedures occurs.

Furthermore, condition **A4** requires an Odour Management Plan to be submitted to the Director for approval prior to the commencement of operations. This Plan must detail potential odour sources, the odour capture and treatment system, actions / contingencies to be implemented should an issue arise (e.g., fire, flood, power outage, equipment failure), and a regular monitoring and maintenance schedule.

Condition **A5** requires that within 15 months of the commencement of operation, odour sampling of all odour sources is to occur. This is to confirm whether odour emission values for various expected odour sources for the facility used in the modelling provided for the EER are representative of actual conditions. The proposed 15 months will allow time for measurement to be undertaken at a time of year and production level when maximum odours may be produced and will also allow processes at the facility to have been established and biofilters to become fully operational. Condition **A5** requires an Odour Sampling Report to be provided to the Director for approval within one month of the sampling being undertaken.

Condition **A6** requires that the atmospheric dispersion modelling undertaken for the EER is re-run according to an approved methodology and the modelling report is submitted to the Director. The report must include the results of dispersion modelling and their interpretation, along with details of any additional mitigation measures that may be needed to ensure environmental nuisance does not occur, in the event that modelling indicates that nuisance may be likely to occur.

The EER acknowledges that the 2 odour unit (OU) criterion stipulated in Schedule 3 of the *Environment Protection (Air) Policy 2004* (Air EPP) will still be exceeded at the boundary of the Land for the proposed upgrade. The EER further states that the odour emissions that have been modelled indicate a significant reduction at the boundary of the Land, compared to the existing open windrow method of composting. The odour concentrations at the boundary of the Land for all sources at the current operation were modelled at around 575 OU, compared to 27 OU for the upgraded facility (normal operating conditions, all sources, scenario 2A4).

This outcome would represent a significant improvement to the local amenity, meaning the likelihood of environmental nuisance occurring would be significantly reduced compared to current operations.

The EER also states that impacts associated with emissions from this operating scenario (2A4) are predicted to be well below the perceptible odour detection to be an environmental nuisance at all the identified sensitive receptors. The impact of this new facility is also reinforced by examining the requirements of Section 13 of the Air EPP being:

- The DOT facility includes the best available technology to treat the odours before being released;
- DWM is spending more than \$20M to improve the existing open-air facility to address current odour issues;
- The Odour Impact Assessment predicts an improvement to the odours received at the nearby receptors by up to 99%; and
- DWM is doing everything reasonable and practical to improve local amenity.

The EER notes that the base Scenario 2A4 assessment (Figure 20 of the EER) shows that the northerly extent of the predicted 2 OU contour is approximately 500 m from the nearest sensitive receptor, with approximately 500 m of pine forest buffering the DOT from the nearest receptor. The predicted highest ground-level odour concentration at any receptor is 1.67 OU at receptor eight.

The EER further states that this highlights that with the proposed facility operating as designed, with a consistent negative pressure in the building to provide for the efficient capture and treatment of all odour emissions, and the biofilters operating as designed with an exhaust emission concentration of 750 OU, odour nuisance in the local community is unlikely to occur.

These arguments are all generally supported and while there remains a lack of confidence in the details of the modelled data, the conditions imposed are significant and require validation of the modelling to occur once the operation is up and running. There are significant drivers for the Proponent to ensure that the facility is well operated, and should any issues arise, further engineering solutions can be considered, such as increasing the size of the biofilters or the addition of more scrubbers.

When looking at modelled abnormal scenarios, such as a personnel access door remaining open (scenario 2A5 – Figure 21 of the EER), or a truck access roller door remaining open (scenario 2A6 – Figure 22 of the EER), it appears that the 2 OU contour would just reach the closest residences to the north of the site. An emergency generator will power all air handling equipment to ensure continuous odour treatment is maintained should mains power be interrupted. For the above scenarios to occur, the facility would need to lose mains power and the emergency generator fail simultaneously. If this unlikely scenario occurred and significant impact from odour was occurring, there is also the option to remove waste to the adjacent landfill.

In addition to the above arguments, the Odour Impact Assessment states that the two biofilters account for 99.9% of the predicted ground level odour concentrations beyond the site boundary, which is to be expected due to the significant volume of air to be collected and treated in the biofilters. It also notes that a well performing biofilter will have no residual waste odour character and would meet an average bed odour emission concentration limit of 750 OU, with the only remaining odour emissions associated with the storage of finished and oversized product, which have similar odour characteristics to the biofilters. It goes on to state that the predominant odour characteristics of the site will change significantly once transitioned to the new facility from that of biosolids, putrescible organic waste and compost odour to a mulchy, earthy odour characteristic from the biofilter, green waste and finished compost stockpiles. It notes that this odour will be similar to that of the background odours experienced in a rural and forestry setting.

To ensure that the biofilters are maintained and operating at optimal efficiency, condition **A7** requires that monitoring by a suitably qualified person to evaluate their condition and performance be initially conducted within three months of notification of wet commissioning, then quarterly up to 24 months, bi-annually up to 48 months and at least annually thereafter. This will ensure that as the facility commences operation a close watch is kept on the operation and performance of the biofilters to identify and rectify any issues as early as possible. The monitoring will involve measurement of the relevant parameters that provide information about the condition and performance of each biofilter.

Condition **M5** requires that a Monitoring Plan of composting processes be submitted to the Director for approval within three months of the commencement of operations. This plan must propose a set of operational parameters with applicable limits to ensure that the final compost product meets the pasteurisation standards of the Australian Standard *AS 4454: 2012 Composts, soil conditioners and mulches* (the AS). This is also designed to ensure a documented process exists for early detection of upset conditions in the compost by the operator, which could be a significant contributor to excessive odours from the facility.

Historically, permit conditions for composting would usually specify the operating parameters for oxygen, carbon: nitrogen ratio, temperature and moisture that must be met. However, given in-vessel composting is a new technology for Tasmania, it was determined that these parameters be based on data from when the activity commences operations. The Proponent has advised that three months is an appropriate timeframe for collection of sufficient data to propose the optimal operational parameters that need to be met.

If compost does not meet the pasteurisation standards of the Australian Standard, condition **OPI0** requires that 'out of spec' compost must either be returned to the composting tunnels or disposed of to Dulverton Landfill within 24 hours. This will ensure that compost that has not been pasteurised correctly, which may result in it being more odorous, is managed appropriately and not added to the final compost stockpile, where emissions are not managed by the air capture and treatment system.

To minimise the likelihood of environmental nuisance occurring, condition **OP5** requires that putrescible feedstock must be processed within 24 hours of delivery of the waste and that only non-putrescible waste be stored outside the "in-vessel composting" area. There were some concerns that as no limit is imposed on the volume of non-putrescible feedstocks that can be stored outside of the facility there was potential for odour emissions and potentially contaminated stormwater moving through the green waste to cause environmental harm or nuisance given that a larger volume could potentially be stored onsite than has been in the past. It was therefore considered appropriate to require that management of non-putrescible wastes not stored within the facility be included in the Operational Procedures Manual Pre-commencement required under condition **OPI** to ensure it is managed appropriately.

It is believed that this proposal will represent an improvement in the management of odour emissions at the site. While the modelling confirms that the 2 OU criterion specified in the Air EPP will not be met at the boundary of the Land, the information presented also suggests a negligible risk of environmental nuisance occurring. Given the uncertain level of confidence in the modelling undertaken, a stringent set of conditions has been imposed to resample and validate the modelling once the activity is operational, to assist in determining the likelihood of odour nuisance occurring for nearby residents. While the proponent is confident that the proposed design of the facility is sufficient to significantly reduce odours from the site, compared to the existing open windrow operation, further engineering controls are available should remodelling suggest that odour has not been reduced to the extent expected, and/or there are complaints received regarding odours from the site.

### 6.1.5 Conditions

The proponent will be required to comply with the following conditions:

- G6 Complaints register
- A1 Covering of vehicles
- A2 Control of dust emissions
- A3 Odour management
- A4 Odour Management Plan
- A5 Odour sampling
- A6 Atmospheric Dispersion Modelling
- A7 Biofilter monitoring
- CN1 Construction Environmental Management Plan
- M5 Monitoring plan of composting process
- OPI Operational Procedures Manual Pre-commencement
- OP5 Storage of feedstock
- OPI0 Disposal of compost

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## 7. Evaluation of Other Environmental Issues

In addition to the key issue, the following environmental issues are considered relevant to the proposal and have been evaluated in this section:

1. Noise emissions
2. Waste management
3. Water Quality – surface and ground water
4. Dangerous goods and environmentally hazardous substances
5. Natural values, weed, pest and disease management
6. Decommissioning and rehabilitation

### 7.1 General conditions

The following general conditions will be imposed on the activity:

- G1 Access to and awareness of conditions and associated documents
- G2 No changes without approval
- G3 Incident response
- G4 Change of responsibility
- G5 Change of ownership
- G6 Complaints register
- G7 Annual Environmental Review
- G8 Environmental Management Plan and review thereof
- G9 Notification prior to wet commissioning
- G10 Emergency Response Plan

## 7.2 Issue I: Noise emissions

### 7.2.1 Potential impacts

Noise emissions during construction and operation of the in-vessel composting facility have the potential to cause environmental nuisance to nearby sensitive receptors if not managed appropriately.

Noise monitoring was undertaken to determine the likely noise emissions from the site. The most significant change from the open windrow composting will be the 24/7 operation of some equipment (e.g., various fans and pumps) which have the potential to cause environmental nuisance, particularly during night-time periods. Similarly, during construction of the facility there are likely to be additional noise emissions different to those usually emitted from the site.

The nearest sensitive receptors are located 835 m (Location B) to the north and 1.4 km (Location A) to the east of the site.

### 7.2.2 Management measures proposed in EER

Section 4.4 of the EER includes the following proposed management measures:

- Include construction noise mitigation as a key element of the CEMP and ensure ongoing adherence to hours of operation and noise mitigation measures.
- Conduct noise measurements of the facility and the components once the plant is operational to verify noise emissions are consistent with the predicted outputs from the modelling given the proposal will result in plant operating 24 hours a day (e.g., biofilter fans).

Section 3.4 of the EER states that the construction phase will be underpinned by:

- A clear, well communicated Construction Environmental Management Plan (CEMP) developed to ensure all environmental aspects and impacts are controlled to prevent environmental harm or nuisance. The CEMP will contain best practice environmental management standards to ensure:
  - compliance with the permit conditions;
  - establishment of site level construction controls to manage stormwater, erosion and dust;
  - prevention of nuisance noise;
  - adherence to traffic management arrangements; and
  - response to unanticipated discoveries.
- An interface agreement developed between the construction contractors and the existing operations contractors given that construction will occur concurrently and in the vicinity of the existing DORF. This will ensure coordination of traffic and environmental controls to prevent impact on either undertaking.
- DWM's mature ISO 14001:2014 certified environmental management system that will be applied to all aspects of site management. This includes processes and leadership to ensure due diligence in the prevention of harm or nuisance.

### 7.2.3 Public and agency comment

No public or agency submissions were received in relation to noise emissions.

### 7.2.4 Evaluation

Unattended noise measurements were made over a two-day period at the two nearest sensitive receptors. Night-time measurements at Location B (835 m distance) could not be used due to issues with the data, however, the report considered that the night-time measurements at Location A (1.4 km distance) were likely to be representative of those at Location B.

Noise emissions for the new facility, experienced at the nearest sensitive receptors, were modelled to be similar to the existing conditions during the daytime, so it is not anticipated that during daytime operation noise emissions will be any different to those already experienced in the local area. However, the proposed activity will have plant operating 24/7, which may introduce new night-time noise emissions from the activity.

It is therefore considered appropriate to impose condition **N1** requiring a noise survey to be completed within three months of the commencement of operation to confirm noise levels from the activity.

The EER states that the modelled daytime noise emissions from the activity are  $L_{Aeq}$  35 dB(A) and  $L_{Aeq}$  34 dB(A) Location A and Location B respectively. No mitigation measures were proposed in relation to further noise emission mitigation. A daytime noise limit of 40 dB(A) is therefore considered appropriate and should be easily achievable for the activity, as imposed by condition **N4**.

Imposing lower noise limits than standard where the activity can easily achieve those noise limits is considered best practice environmental management and provides for potential future developments in the area without a significant noise impact on the noise sensitive receptors. Furthermore, additional engineering controls would be possible if required, such as shielding of fixed equipment.

Based on the predictions in the noise report, noise emissions from the activity are not expected to be audible at the nearest sensitive receptors. It should be noted that in the event noise emissions were audible at the nearest sensitive receptors, the activity would not be in breach of its noise emission limits unless the noise emissions from the activity exceeded the background noise emissions by more than 5 dB(A). As such, the existing daytime background noise levels ( $L_{A90}$ ) were measured as 37 dB(A) and 44 dB(A) at Location A and B respectively, therefore the resultant daytime 'background + 5' dB(A) criteria for location A and B are  $L_{Aeq}$  42 dB(A) and  $L_{Aeq}$  49 dB(A) respectively which must not be exceeded at any time.

It should also be noted that the noise emission limits are applicable only to the activity and can be assessed by either measurement or prediction.

Condition **N3** requires that noise surveys must be undertaken in accordance with an approved method and that a report must be provided after completion of the survey including the results and their interpretation and any further management measures recommended.

Condition **N2** is a standard condition requiring noise emissions to be controlled to the extent necessary to prevent environmental nuisance from occurring.

During the 12-month construction phase of the proposal, it is likely that noise emission sources will change from those currently experienced from the site. The Proponent has committed to developing a CEMP and this is required under condition **CN1**. This condition requires the CEMP to address management of noise emissions during construction. In addition, condition CN2 requires that unless otherwise approved by the Director, construction works must only occur between the hours of 0700 and 1700 hours Monday to Friday.

The conditions imposed are considered adequate to manage the risk of environmental nuisance occurring from noise emissions. The Noise Survey is required to validate the predicted noise levels, with further engineering solutions available should the need arise for further noise mitigation.

### 7.2.5 Conditions

The proponent will be required to comply with the following conditions:

- CN1 Construction Environmental Management Plan
- CN2 Operating hours – Construction
- N1 Noise survey requirements
- N2 Control of noise emissions
- N3 Noise survey method and reporting
- N4 Noise emission limits

## 7.3 Issue 2: Waste management

### 7.3.1 Potential impacts

Inappropriate sorting, management and storage of waste has the potential to cause environmental harm. Potential impacts include excessive odour emissions, impacts to surface and ground waters, and contamination of soils.

### 7.3.2 Management measures proposed in the EER

Section 4.5 of the EER includes the following proposed management measures:

- The design includes multiple stages for the mechanical and manual removal of solid wastes from the composting process.
- The development of a Solid Waste Management Plan to ensure the hierarchy of waste control is applied to all solid wastes removed from the process.
- Installation of a perimeter fence no greater than 1.8 m to contain and collect litter arising from the DOT.
- Maintaining tracking data for all solid wastes arising from the composting process. This will include type, weighbridge volumes, and management action.

The EER also states that any solid wastes removed will be managed in accordance with the waste hierarchy (i.e., recycling all wastes where suitable).

### 7.3.3 Public and agency comment

No public or agency submissions were received in relation to waste management.

### 7.3.4 Evaluation

The management of incoming waste is a critical component to the success of the operation, particularly in relation to management of odour emissions as discussed in Section 6.1 of this report. Sorting of waste is an important factor to ensure that the operator can achieve the desired inputs to the composting tunnels. Condition **OPI** requires development of an Operational Procedures Manual prior to commencement which must detail the operational procedures that are in place to ensure that the conditions can be met. This document is intended to include details on the inspection, sorting and management of incoming wastes.

Condition **OP4** lists the wastes that can be accepted at the site. The proposal includes all wastes approved under separate Environmental Approvals for the current activity and several new feedstocks, including food organic garden organic (FOGO) from Council kerbside collections, food organics (i.e., source separated commercial and kerbside collections), grease trap wastes, and cannabis. The full list proposed by the Proponent is detailed in Table 1 of the EER. The condition provides scope for the Director to approve additional wastes to be added to the list detailed in **OP4**, should the Proponent present an acceptable case for this in the future.

It is acknowledged that the facility will operate 24 hours a day 7 days a week (i.e. automated composting within the vessels), however, condition **OP8** requires that the facility is only open for the receipt of waste between 0700 hours and 1700 hours Monday to Saturday and that while the site is open for the reception of waste, the site must be staffed by a person or persons whose duties include supervision of the deposition of wastes and ensuring compliance with the permit conditions.

Several solid waste streams will also be produced from incoming feedstocks including plastics, metals, concrete, and other miscellaneous wastes. The EER states that once FOGO is included as a feedstock, annual solid waste will be around three hundred tonnes. To ensure that the final compost can meet the requirements of the relevant Australian Standard (AS 4454: 2012 Composts, soil conditioners and mulches) several methods and pieces of equipment will be installed to remove non-compostable matter, including visual removal in the receivals hall, shredding, magnet, star screen with drum screen vacuum hood, hand picking station, food de-packager machine, and vacuum separator on the final screening of compost to remove any remaining soft plastics. Quantities of wastes originating from the compost facility (mainly expected to be compost product which does not meet the requirements of the Australian Standard AS

4454: 2012 but may also be packaging wastes and other incidental material received but not suitable for composting), must be reported annually (Condition **M2**). Additionally, Condition **H4** requires that a record of all controlled wastes received or generated on the Land be kept, including the controlled waste category set down in the *National Environment Protection (Movement of Controlled Waste Between States and Territories) Measure 1998 (Controlled Waste NEPM)*, the quantity, the fate of the waste and, when available, where the waste was generated.

The proposal includes retention of a portion of an existing open windrow composting pad, the leachate pond (after it has been decontaminated and relined), and the irrigation network for potential future use. The intention of this is to retain some infrastructure available should a state level emergency arise (for example, the proposal refers to the recent need to dispose of hydrocarbons from the Mersey River tugboat sinking in early 2022), that requires composting of organic materials and where room is not available in the tunnels at that time. Condition **OP2** states that the compost pad, leachate pond and associated irrigation network must not be used for composting purposes unless for limited duration emergency responses with the written approval of the Director. The Regulatory Officer has advised that should such a need arise, an Environmental Approval would likely be issued for emergency uses.

There will be a transitional period where the receipt of waste transitions from the current open windrows to the new in-vessel facility. During this period there will be open windrows in varying stages of completion that will need to finish maturation and then be added to stockpiles for use. Once all windrows have been matured as per the current procedures, the infrastructure not associated with the new facility or retained for emergency use will need to be decommissioned and rehabilitated to the satisfaction of the Director, condition **OPI I** is imposed to set out these requirements.

Onsite treatment of worker sanitary wastes is proposed using a biocycle system or similar, as connection to the sewer system is not practical. Treated effluent will be added to the leachate collection system and also biosolids from periodic maintenance of the treatment system, which will be tested and added as a compost feedstock if it meets an appropriate grade. This issue is not considered within the Board's remit to assess and will be considered through the Council's assessment.

It is noted that in the future there will be a requirement to test compost for Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS), however, this is currently not required. When a standard or threshold is developed it can be implemented at that time.

The proposed management measures and conditions imposed are considered appropriate to manage any potential risk of environmental harm from waste management. The primary issue with waste management (odour) is covered in the air quality section of this report.

### 7.3.5 Conditions

The proponent will be required to comply with the following conditions:

- H4 Record of controlled waste
- M2 Waste data reporting
- OPI Operational Procedures Manual Pre-commencement
- OP2 Open windrow composting
- OP4 Receivable wastes
- OP8 Hours of operation and site staff
- OPI I Transitional arrangements

## 7.4 Issue 3: Water quality – Surface and ground water

### 7.4.1 Potential impacts

Potential impacts to surface and ground waters and karst systems may be caused by sediments or pollutants from spills, or unintentional release of leachate from the facility, if not managed appropriately.

### 7.4.2 Management measures proposed in EER

Section 4.3 of the EER includes the following proposed management measures:

- Installation of closed-loop leachate collection infrastructure to contain and recirculate leachate within the composting process.
- Installation of instrumentation to monitor leachate levels and allow for periodic sampling.
- The existing DORF leachate pond will be taken offline, de-watered, the sludge tested, and the material disposed of appropriately to composting or landfill. The storage will be regraded, reconstructed, HDPE lined and left empty for potential future use during state-scale emergency composting events. There will be no stormwater or leachate drains directed to the pond. All surface waters will be directed away from the storage. In effect it will only collect rainwater from directly above. Post-decommissioning, the existing leachate pond would not be used for leachate storage without the express written permission of the EPA.
- Installation of containment infrastructure for stormwater capture and reuse within the composting process.
- Tunnel irrigation valves will automatically interlock to prevent irrigation of leachate once pasteurisation stage commences (only rainwater can be used from this point).
- Development of an Operational and Maintenance Manual to support the operation and process control of leachate, including identification and management of critical controls.

Section 4.7 of the EER also includes the following commitment relevant to water quality:

- Utilise information gained from site geotechnical investigation to inform detailed design and ensure karst conservation values are protected.

### 7.4.3 Public and agency comment

No public submissions were received in relation to either surface water or groundwater quality.

The Conservation Assessments and Wildlife Services section of NRE Tasmania (CAS) noted that the proposal is located within a karst limestone area and there is potential for leachate to impact groundwater quality and groundwater dependent ecosystems and for ground subsidence to impact built structures. CAS supported the conclusion in the EER that the new facility will have a negligible impact on karst as no discharge to the environment will be occurring.

CAS noted that in 2018 an assessment of karst hazards was completed for the existing operation (Annexure C of the EER), which identified a fault and associated zone of fractured limestone interpreted by the consultant as preferentially affected by karst processes. The fault zone is mapped as an indicative area at least 250 m wide. Further, CAS notes that the EER states that a geotechnical investigation has been undertaken for the present proposal but does not specify the scope or findings, beyond noting that no karst features have been identified at the site.

Regarding the potential for ground subsidence to cause land degradation and impact on built structures, the EER states that the proposed development is located west of the fault zone and that fracturing due to structural loading or increased infiltration of runoff is unlikely to impact on built structures. CAS supports this conclusion but does not agree that the ground subsidence concern has been adequately addressed, based on the following:

- Ground subsidence in karst does not always require ground loading or increased infiltration of runoff – the process can occur naturally due to movement of sediment in pre-existing voids causing loss of support within the regolith (cover-collapse sinkholes). This tendency is enhanced where pre-existing karst terrain is buried beneath a flux sediment such as glacial debris, a situation which applies at Railton.

- Preferential development of karst within the identified fault zone does not preclude karst development within less fractured limestone outside the zone. Other structural features such as synclines also provide foci for karst processes. For example, the leachate pond which was decommissioned due to the presence of a feature described as an historic karst void (EER p. 72) is not located centrally within the fault zone.
- The Railton area has a history of cover-collapse sinkhole formation, including large features which developed rapidly in pine plantations south of the Dulverton facility. In this example mine de-watering has been implicated, highlighting the potential for sub-surface pathways in karst to trigger ground subsidence at locations which are remote from an original disturbance.

Noting the above, CAS recommends careful consideration is given to placement of the building as it is within a karst area where large cover-collapse sinkholes have formed, and a leachate pond has failed. While the 2018 report by Tasman Geotechnics provides important context, it does not address the specific risk of karstic subsidence at the DOT footprint. A formal geotechnical assessment of karst hazards at the development footprint is recommended.

In addition, the EER states that a Karst Management Plan (KMP) is in place. CAS previously commented on a version of the KMP in 2017. It is recommended that the status of the Karst Management Plan is clarified, and any updated version forwarded to CAS for comment.

#### 7.4.4 Evaluation

The proposal is for a closed loop composting system in which all leachate is captured and reused in the composting process and stormwater from the buildings is also captured for use in the composting process. There are no liquids discharged to the Land from the activity, hence the risk to soils, surface and ground waters and karst is considered low.

Nevertheless, it is considered appropriate to impose conditions to ensure that water quality is not impacted from the activity.

Condition **E2** requires that during construction activities all reasonable measures must be implemented to ensure that solids entrained in stormwater are retained on the Land. The CEMP required under condition **CNI** will require that all such measures be documented and approved by the Director.

The composting facility and adjacent landfill are both operated by DWM, and historically the stormwater and any leachate overflow from the composting site has reported to the water management systems associated with the landfill. The proposal intends to direct stormwater to the landfill stormwater pond for treatment prior to discharge to Caroline Creek. Condition **E1** requires that any polluted stormwater that is to be discharged from the Land must be directed to the landfill stormwater pond for treatment prior to discharge, to the extent necessary to prevent environmental harm or nuisance. Discharge of stormwater will then be covered under the landfill's existing conditions. Nevertheless, if in the future the landfill's stormwater pond is deemed not to be of sufficient capacity, or in the event the landfill changed to different ownership, the Proponent would be required to ensure that appropriate stormwater management infrastructure was put in place to meet the requirements of the conditions.

Condition **E3** requires that perimeter cut off drains or bunds be constructed at strategic locations to ensure that surface run-off is prevented from entering the area where the activity is undertaken.

To ensure that leachate is contained within the closed loop system, condition **E4** is imposed to require a leachate collection system be installed to prevent leachate generated during operation of the activity from polluting surface or ground waters.

Condition **OP6** requires that washdown facilities must be provided for waste delivery trucks and that any washdown waters must be collected by the leachate management system.

Conditions **M1**, **M3** and **M4** are included to cover existing monitoring requirements for the existing compost facility that will be applied to the entire site. This water monitoring will help ensure that any historical water quality issues from the open windrow composting operation are managed appropriately and that the proposed activity is not impacting water quality. Should an emergency authorisation be needed for open windrow composting in the future it will also help determine any potential water quality impacts that may arise from limited open windrow composting and irrigation of leachate.

Karst was raised as a potential concern by CAS, being the potential for leachate to impact groundwater and groundwater-dependent ecosystems, and the potential for ground subsidence. CAS supported the conclusion of the EER that the proposal will reduce the likelihood of impact on karst due to all liquid discharges being contained within the facility.

However, CAS still had some concerns around ensuring that ground subsidence will not affect the proposed facility. It is noted that the Proponent has undertaken a geotechnical study for the proposed building site and is aware of the potential risks associated with karst in the area. This issue relates more to work health and safety and relevant building codes to ensure that the location of the building is safe. This aspect has not been considered by the Board and it is recommended that the Proponent seek further professional advice if there are any concerns around ground subsidence. No conditions are recommended in relation to karst management.

It should also be noted that the Karst Management Plan noted in the EER and by CAS is a draft. Any final version of this plan will be provided to CAS for their information.

The proposed activity is considered to present a negligible risk of causing environmental harm from water quality impacts and the conditions imposed are considered adequate for the activity.

#### **7.4.5 Conditions**

The proponent will be required to comply with the following conditions:

- CN1 Construction Environmental Management Plan
- E1 Stormwater
- E2 Retention of sediment
- E3 Perimeter drains or bunds
- E4 Leachate management
- M1 Samples and measurements for monitoring purposes
- M3 Water Monitoring Plan
- M4 Water Monitoring Reporting
- OP6 Site hygiene and biosecurity

## 7.5 Issue 4: Dangerous goods and environmentally hazardous substances

### 7.5.1 Potential impacts

Inappropriate use and storage of hazardous substances has potential to cause environmental nuisance or harm if discharged to the Land or nearby waterways.

During construction there will be diesel fuel for vehicles, machinery, and equipment; oils and greases for plant and equipment and machinery lubrication and gas cylinders for welding and cutting steel, present on the site.

During operation of the facility the existing hazardous chemicals will be used. The main addition will be sulphuric acid for the acid scrubber which will also produce ammonium sulphate as a by-product.

### 7.5.2 Management measures proposed in EER

Section 4.6.4 of the EER details the measures that will be implemented for the construction stage, operational stage and specific management measures related to storage of sulphuric acid.

The EER also states that under the WHS Regulations 2012, the amount of sulphuric acid will exceed the manifest quantity specified and hence has the potential to require it to be classified as a Manifest Quantity Workplace, which will have set requirements under the WHS Act and Regulations.

### 7.5.3 Public and agency comment

No public or agency submissions were received in relation to dangerous goods and environmentally hazardous substances.

### 7.5.4 Evaluation

The proposed mitigation measures are supported for both the construction and operational phases of the activity.

Sulphuric acid is the main new hazardous substance that will be introduced to the site that is not already used there and will be stored in a self-bunded 10 m<sup>3</sup> tank with annual consumption of around 100-135 tonnes per year. A concrete bunded area will be provided for delivery of acid to the site, any spills will report to a bund tank for collection. Approximately 500-650 m<sup>3</sup> of ammonium sulphate by-product will be produced annually by the acid scrubber and will be stored in a 30 m<sup>3</sup> tank. It is intended to use this by-product off site as a fertiliser.

The standard suite of conditions for dangerous goods and environmentally hazardous materials is considered appropriate for managing the potential risks at the site.

Condition **H2** requires that any environmentally hazardous materials held onsite must be stored within a bunded area and managed to prevent the unauthorised discharge, emission, or deposition of any pollutants to soil, groundwater, surface water or beyond the boundary of the Land. Condition **H3** is much the same but relates to containment of environmentally hazardous materials of a mobile nature for example, if mobile refuelling or maintenance were to occur.

Condition **H1** requires an appropriate number / type of spill kits be located onsite in appropriate locations and maintained in a functional condition to assist with containment of any spill that may occur.

### 7.5.5 Conditions

The proponent will be required to comply with the following conditions:

- H1 Spill kits
- H2 Storage and handling of hazardous materials
- H3 Handling of hazardous materials – mobile

## 7.6 Issue 5: Natural values, weed, pest and disease management

### 7.6.1 Potential impacts

If not managed appropriately the proposal has potential to impact on natural values, including impacts to wildlife from traffic / built structures and from weeds, pests, and diseases.

### 7.6.2 Management measures proposed in the EER

Section 4.7 of the EER includes the following proposed management measures:

- Ensure building design has considered and mitigated swift parrot collision risks where possible during the detailed design stage of the DOT facility.
- No wire mesh will be used in the building and perimeter fences will be no higher than 1.8 m of mesh material if required.
- The Construction Environmental Management Plan will include measures to protect existing natural values including day work only to avoid impacts on Tasmanian Devil populations.
- Maintain the area to the east of the DWM landfill site which has been established as an 'offset reserve' through a Forest Practices Plan (FPP No: GEW0157) under the *Forest Practices Act 1985*. This area provides a significant contribution towards the protection of *E. ovata* forest and habitat for the Central North Burrowing Crayfish, Swift Parrot, and Giant Freshwater Crayfish on the property.

Section 4.8 of the EER includes the following proposed management measures:

- Undertake a weed survey prior to establishment of the construction site. Undertake necessary weed control measures to avoid the dispersion of seed within or offsite.
- Receiving of organic feedstock (except green waste and timber) into enclosed area to avoid attraction of scavenging birds and other wildlife.
- Install additional rodent traps within the constructed DOT facility.

The EER states that in addition to the management measures proposed above, DWM is also required to comply with requirements under the *Work Health and Safety Act 2012* and subordinate *Work Health and Safety Regulations 2012* by providing a workplace without harm to worker health and safety. Accordingly Safe Operating Procedures will be developed to ensure controls for exposure to pests and pathogens are specified.

Section 4.13 of the EER includes proposed management measures in relation to traffic management, mostly relating to road safety issues that the Board does not assess.

### 7.6.3 Public and agency comment

No public submissions were received in relation to natural values.

CAS noted that the activity has the potential to impact on the Tasmanian Devil (*Sarcophilus harrisii*) and the Spotted-tailed Quoll (*Dasyurus maculatus*) through roadkill. CAS recommended that if the proposal will result in a greater than 10% increase in night-time traffic on Dawsons Siding Road and associated access roads, roadkill mitigation measures are recommended in accordance with the *Survey Guidelines and Management Advice for Development Proposals that may impact on the Tasmanian Devil (Sarcophilus harrisii)* (Department of Primary Industries, Parks, Water and Environment. Natural and Cultural Heritage Division, 2015) (the Tasmanian Devil Guidelines).

CAS also noted that there are records in the area for Swift Parrots (*Lathamus discolor*) and that the site is within potential foraging habitat for the species. CAS notes that Swift Parrot collision with windows and chain link fences is a potential threat. CAS re-stated its recommendation that infrastructure associated with the proposal take into consideration the Guidelines and recommendations for parrot-safe building design: Minimising the swift parrot collision threat, (WWF – Australia 2008) (the Swift Parrot Guidelines).

Karst is discussed in the water quality section.

#### 7.6.4 Evaluation

The proposed facility will be located on the existing cleared site and no vegetation clearance is required so there will be no additional impact on natural values. Furthermore, the closed loop nature of the facility will also eliminate some emissions that had the potential to impact on natural values (e.g., leachate).

The EER notes that there will be a significant increase in traffic during the construction phase, but likely over a 3 to 4 month period, rather than for the full 12 month construction period. The EER also states there will be an increase in traffic once operational for additional feedstocks to be received. The EER confirms there will be no night-time construction works and that once operational, deliveries will only occur during daytime hours.

The EER recommends that a Construction Traffic Management Plan include actions around potential impacts to natural values, including noise and air emissions. This recommendation is supported.

To support the measures noted for reducing the collision risk to the Swift Parrot and to ensure that wildlife cannot access the leachate pond, condition **OP7** requires that the leachate pond be fenced with a stock-proof fence sufficient to restrict entry of native animals and that any fencing must be designed and operated in accordance with the Swift Parrot Guidelines.

The new facility will help reduce the potential risk of weeds, pests, and diseases due to enclosing the waste receipt and composting processes. Condition **OP3** is included to require that The Land be kept substantially free from weeds.

The conclusions and commitments made in the EER regarding natural values, weeds, pests, and diseases are generally supported and no further conditions are recommended.

#### 7.6.5 Conditions

The proponent will be required to comply with the following conditions:

- OP3 Weed management
- OP7 Fencing

---

## 7.7 Issue 6: Decommissioning and rehabilitation

### 7.7.1 Potential impacts

Temporary or permanent cessation of the activity has potential to cause on-going impacts to the environment if decommissioning and rehabilitation are not managed appropriately.

Potential impacts include increased odour emissions, erosion, contamination of soil and water (i.e., if the leachate management system is not appropriately decommissioned), impacts on biodiversity and uncontrolled dust emissions.

### 7.7.2 Management measures proposed in EER

The EER notes the decommissioning and rehabilitation conditions applied to the current operation and provides some guiding principles for future decommissioning and rehabilitation.

### 7.7.3 Public and agency comment

No public or agency submissions were received in relation to decommissioning and rehabilitation.

### 7.7.4 Evaluation

It should be noted that these conditions only apply to future decommissioning and rehabilitation applicable to the new proposed facility. Relevant aspects of decommissioning and rehabilitation associated with the current operations will be dealt with under existing approvals.

Section 4.15 of the EER outlines the objectives of decommissioning and rehabilitation. These proposed principals are generally supported. To ensure these works are undertaken appropriately a standard suite of condition is imposed.

Condition **DC2** requires that the Director be notified of any decision that it likely to give rise to the permanent cessation of the activity and condition **DC1** requires notification of any decision that it likely to give rise to the temporary suspension of the activity.

Condition **DC3** requires that upon notification of permanent cessation of the activity a Decommissioning and Rehabilitation Plan must be submitted to the Director for approval.

Furthermore, condition **DC4** sets out the minimum requirements for rehabilitation following permanent cessation of the activity to ensure that the risk of environmental harm occurring is minimised.

As noted in Issue 2 above, there will be a transitional period where the receipt of waste transitions from the current open windrows to the new in-vessel facility, after which the open windrow composting infrastructure not to be retained will need to be decommissioned and rehabilitated to the satisfaction of the Director, as detailed in condition OPI I.

This standard suite of decommissioning and rehabilitation conditions is considered adequate for a site of this type to ensure that environmental harm does not occur.

### 7.7.5 Conditions

The proponent will be required to comply with the following conditions:

- DC1 Temporary suspension of activity
- DC2 Notification of cessation
- DC3 DRP requirements
- DC4 Rehabilitation following cessation
- OPI I Transitional arrangements

---

## 8. Issues not assessed by the Board

The following issues which were raised during the assessment process are not the responsibility of the Board under the EMPCA and may be more appropriately addressed by another regulatory agency.

1. Greenhouse gas emissions and climate change
2. Fire risk

### 8.1 Issue 1: Greenhouse gas emissions and climate change

#### 8.1.1 Potential impacts

**8.1.2 The proposal has the potential to impact on greenhouse gas emissions and climate change, both negatively and positively through the consumption of fossil fuels / electricity to power plant and equipment and the diversion of wastes from landfilling to compost, respectively. Management measures proposed in EER**

The EER notes that composting plays an important role in reducing greenhouse gases by diverting wastes that would otherwise go to landfill. The EER states that while the proposal will itself produce greenhouse gases, these impacts are well offset by the reduction in emissions that would result from the waste being taken to landfill.

The EER also notes that the addition of solar power to the site will be considered in the future to help further reduce the activities footprint regarding greenhouse gas emissions.

The EER states that greenhouse gas emissions associated with transport of materials to and from the site are not new as they are also associated with the existing DORF. However, while they are difficult for DWM to control, there are indirect ways these emissions are being mitigated including:

- Distribution of composted product is through wholesale distribution to buyers of bulk quantities of product so there is no access by general public light vehicles to the site. This reduces vehicle kilometres travelled and therefore associated greenhouse gas emissions.
- Encouraging only full loads of materials to be delivered.
- Supporting the importance of using energy efficient vehicles.

#### 8.1.3 Public and agency comment

No public or agency submissions were received in relation to greenhouse gas emissions and climate change.

#### 8.1.4 Conclusion

The conclusions made in the EER, and the proposed management measures are generally supported, and the Proponent is encouraged to continue to look for ways to reduce its footprint in relation to greenhouse gas emissions.

## 8.2 Issue 2: Fire risk

### 8.2.1 Potential impacts

Fire occurring within the facility or as a wildfire in the vegetated areas surrounding the site poses a risk to worker safety, the infrastructure, local natural values, and the environment.

### 8.2.2 Management measures proposed in EER/EIS

Section 4.12 of the EER includes the following proposed management measures:

- Installation of all specified fire detection and mitigation equipment in accordance with Tasmania Fire Service and *Building Act 2016* requirements.
- Update of the Bushfire Management Plan and Emergency Management Plans for the new DOT facility. The Plan shall include communication with land managers surrounding DWM to ensure the timely and efficient exchange of information between landholders in the event of a fire.
- Maintenance of a minimum of 50 metres hazard management area (except north-western corner near entrance) between the facility and the forest provided by non-flammable surfaces, gravels, roads etc.

### 8.2.3 Public and agency comment

No public or agency submissions were received in relation to fire risk.

### 8.2.4 Conclusion

Fire risk is not within the Boards remit to assess; however, the proposed management measures are generally supported.

To manage the potential environmental risks it is considered appropriate to impose condition **OP9** to require that any fires occurring on the Land must be extinguished as soon as practicable and reported to the Director. It also states that no fires are to be lit on the Land. To support this, condition **DSI** is imposed to require that in the event of a fire, any potentially contaminated wastewater arising from firefighting must be treated on the Land to the satisfaction of the Director or removed in an appropriate manner.

The proponent will be required to comply with the following conditions:

DSI Firefighting wastewater

OP9 Fire management

No further conditions are considered necessary in relation to fire risk.

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## 9. Report Conclusions

This assessment has been based on the information provided by the proponent, Dulverton Regional Waste Management Authority, in the permit application and the case for assessment (the EER).

This report incorporates specialist advice provided by EPA scientific and regulatory staff, the Department of Natural Resources and Environment Tasmania, and other government agencies.

It is concluded that:

1. the RMPS and EMPCS objectives have been duly and properly pursued in the assessment of the proposal; and
2. the assessment of the proposal has been undertaken in accordance with the Environmental Impact Assessment Principles; and
3. the proposal is capable of being managed in an environmentally acceptable manner such that it is unlikely that the RMPS and EMPCS objectives would be compromised, provided that the Permit Conditions – Environmental No. 10889 appended to this report are imposed and duly complied with.

The environmental conditions in Appendix I are a new set of operating conditions for the entire, modified activity that will supersede the existing permit conditions.

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Report Approval

**Environmental Assessment Report and conclusions, including environmental conditions, adopted:**



ANDREW PAUL  
**CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY**

Meeting date: 16 November 2022

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## 10. References

- Natural Resources and Environment (2015) *Survey guidelines and management advice for development proposals that may impact on the Tasmanian devil (Sarcophilus harrisii): A supplement to the Guidelines for natural values surveys – Terrestrial development proposals* (dated 20 April 2015); Hobart, Tasmania (the Devil Guidelines).
- Dulverton Waste Management (2022) *Dulverton Organics Transformation – Environmental effects report – Final* (dated July 2022); Devonport, Tasmania (the EER).

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## II. Appendices

Appendix I Permit conditions – Environmental No: 10889

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## **Appendix I: Permit conditions – Environmental No: I0889**

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**PERMIT PART B**  
**PERMIT CONDITIONS - ENVIRONMENTAL No. 10889**

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Issued under the *Environmental Management and Pollution Control Act 1994*

Activity: **The operation of a composting facility (ACTIVITY TYPE: Resource Recovery)**  
**DULVERTON COMPOSTING OPERATION, YOUNGMANS ROAD,**  
**RAILTON TAS 7305 Accessed from Dawsons Siding Road, LATROBE TAS**  
**7307.**

The above activity has been assessed as a level 2 activity under the *Environmental Management and Pollution Control Act 1994*.

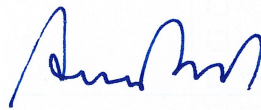
Acting under Section 25(5)(a)(i) of the EMPCA, the Board of the Environment Protection Authority has required that this Permit Part B be included in any Permit granted under the *Land Use Planning and Approvals Act 1993* with respect to the above activity.

Municipality: **LATROBE**  
Permit Application Reference: **DA 304/2021**  
EPA file reference: **21/2416**

16 November 2022

Date conditions approved: \_\_\_\_\_

Signed: \_\_\_\_\_



CHAIRPERSON, BOARD OF THE ENVIRONMENT  
PROTECTION AUTHORITY

## DEFINITIONS

Unless the contrary appears, words and expressions used in this Permit Part B have the meaning given to them in **Schedule 1** of this Permit and in the EMPCA. If there is any inconsistency between a definition in the EMPCA and a definition in this Permit Part B, the EMPCA prevails to the extent of the inconsistency.

## ENVIRONMENTAL CONDITIONS

The person responsible for the activity must comply with the conditions contained in **Schedule 2** of this Permit Part B.

## INFORMATION

Attention is drawn to **Schedule 3**, which contains important additional information.

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### *Attachments*

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## Schedule 1: Definitions

In this Permit Part B:-

**Activity** means any environmentally relevant activity (as defined in Section 3 of EMPCA) to which this document relates, and includes more than one such activity.

**Air Quality EPP** means the *Environment Protection Policy (Air Quality) 2004*, or any subsequent revision of this policy.

**Authorized Officer** means an authorized officer under section 20 of EMPCA.

**Classification And Management Of Contaminated Soil For Disposal** means the document *Information Bulletin No. 105 Classification and Management of Contaminated Soil for Disposal, version 3 2018*, published by the Environment Protection Authority and includes any subsequent versions of this document.

**Conceptual Site Model** or **CSM** means a representation of site-related information regarding contamination sources, receptors and exposure pathways between those sources and receptors in accordance with Schedule B2 of the NEPM.

**Construction** means activities associated with the construction phase of the activity, including but not limited to, the laying of concrete.

**Control Location (Noise)** means a location chosen to represent the general ambient sound without contribution from noise sources at the activity.

**Controlled Waste** has the meaning described in Section 3(1) of EMPCA.

**Director** means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a delegate or person authorised in writing by the Director to exercise a power or function on the Director's behalf.

**DRP** means Decommissioning and Rehabilitation Plan.

**Dulverton Landfill** means the Dulverton Regional Waste Management Authority landfill located on certificate of title 153999/1.

**EMPCA** means the *Environmental Management and Pollution Control Act 1994*.

**Environmental Harm** and **Material Environmental Harm** and **Serious Environmental Harm** each have the meanings ascribed to them in Section 5 of EMPCA.

**Environmental Nuisance** and **Pollutant** each have the meanings ascribed to them in Section 3 of EMPCA.

**Environmentally Hazardous Material** means any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment and includes fuels, oils, waste and chemicals but excludes sewage.

**Information Bulletin No. 105** means the document titled *Information Bulletin No. 105 - Classification and Management of Contaminated Soil for Disposal, Version 3, 2018*, by the EPA, and includes any subsequent version of this document.

**Leachate** means any liquid that is either released by or has percolated through waste.

**Liquid Waste** means any waste that is in liquid form or is substantially comprised of free liquids or is not spadeable (able to be lifted and moved in heaps with a spade).

**Noise Sensitive Premises** means residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.

**Person Responsible** is any person who is or was responsible for the environmentally relevant activity to which this document relates and includes the officers, employees, contractors, joint venture partners and agents of that person, and includes a body corporate.

**Reporting Period** means the 12 months ending on 30 November of each year.

**Stormwater** means water traversing the surface of The Land as a result of rainfall.

**Suitable Surveyor** means a person, registered as a surveyor under the *Surveyors Act 2002*, who is an independent person in respect of the activity.

**Tasmanian Noise Measurement Procedures Manual** means the document titled *Noise Measurement Procedures Manual*, by the Department of Environment, Parks, Heritage and the Arts, dated July 2008, and any amendment to or substitution of this document.

**The Land** means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land falls within the area defined by:

- 1 Certificate of title 131878/1; and
- 2 as shown at Attachment 1.

**Trigger Levels** a monitoring parameter level, or combination of different parameter levels or conditions, that indicate the potential for environmental harm, and that initiate an event like repeat sampling, an investigation, or corrective action.

**Waste** has the meaning ascribed to it in Section 3 of EMPCA.

**Wastewater** means spent or used water (whether from industrial or domestic sources) containing a pollutant and includes stormwater which becomes mixed with wastewater.

**Weed** means a declared weed as defined in the *Weed Management Act 1999*.

**wet commissioning** means the addition of the first waste material to be composted.

## Schedule 2: Conditions

### Maximum Quantities

#### **Q1 Regulatory limits**

- 1 The activity must not exceed the following limits :
  - 1.1 25,000 tonnes per year of production of compost or mushroom substrate.

### General

#### **G1 Access to and awareness of conditions and associated documents**

A copy of these conditions and any associated documents referred to in these conditions must be held in a location that is known to and accessible to the person responsible for the activity. The person responsible for the activity must ensure that all persons who are responsible for undertaking work on The Land, including contractors and sub-contractors, are familiar with these conditions to the extent relevant to their work.

#### **G2 No changes without approval**

- 1 The following changes, if they may cause or increase the emission of a pollutant which may cause material or serious environmental harm or environmental nuisance, must only take place in relation to the activity if such changes have been approved in writing by the EPA Board following its assessment of an application for a permit under the *Land Use Planning and Approvals Act 1993*, or approved in writing by the Director:
  - 1.1 a change to a process used in the course of carrying out the activity; or
  - 1.2 the construction, installation, alteration or removal of any structure or equipment used in the course of carrying out the activity; or
  - 1.3 a change in the quantity or characteristics of materials used in the course of carrying out the activity.

#### **G3 Incident response**

If an incident causing or threatening environmental nuisance, serious environmental harm or material environmental harm from pollution occurs in the course of the activity, then the person responsible for the activity must immediately take all reasonable and practicable action to minimise any adverse environmental effects from the incident.

#### **G4 Change of responsibility**

If the person responsible for the activity intends to cease to be responsible for the activity, that person must notify the Director in writing of the full particulars of any person who will become the person responsible for the activity, before such cessation.

#### **G5 Change of ownership**

If the owner of The Land upon which the activity is carried out changes or is to change, then, as soon as reasonably practicable but no later than 30 days after becoming aware of the change or intended change in the ownership of The Land, the person responsible must notify the Director in writing of the change or intended change of ownership.

#### **G6 Complaints register**

- 1 A public complaints register must be maintained. The public complaints register must, as a minimum, record the following detail in relation to each complaint received in which it is alleged that environmental harm (including an environmental nuisance) has been caused by the activity:

- 1.1 the date and time at which the complaint was received;
  - 1.2 contact details for the complainant (where provided);
  - 1.3 the subject matter of the complaint;
  - 1.4 any investigations undertaken with regard to the complaint; and
  - 1.5 the manner in which the complaint was resolved, including any mitigation measures implemented.
- 2 Complaint records must be maintained for a period of at least 3 years.

## **G7 Annual Environmental Review**

- 1 Unless otherwise specified in writing by the Director, a publicly available Annual Environmental Review for the activity must be submitted to the Director each year within three months of the end of the reporting period. Without limitation, each Annual Environmental Review must include the following information:
  - 1.1 a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the Annual Environmental Review;
  - 1.2 subject to the *Personal Information Protection Act 2004*, a list of all complaints received from the public during the reporting period concerning actual or potential environmental harm or environmental nuisance caused by the activity and a description of any actions taken as a result of those complaints;
  - 1.3 details of environment-related procedural or process changes that have been implemented during the reporting period;
  - 1.4 a summary of the amounts (tonnes or litres) of both solid and liquid wastes produced and treatment methods implemented during the reporting period. Initiatives or programs planned to avoid, minimise, re-use, or recycle such wastes over the next reporting period should be detailed;
  - 1.5 details of all non-trivial environmental incidents and/or incidents of non compliance with these conditions that occurred during the reporting period, and any mitigative or preventative actions that have resulted from such incidents;
  - 1.6 a summary of the monitoring data and record keeping required by these conditions. This information should be presented in graphical form where possible, including comparison with the results of at least the preceding reporting period. Special causes and system changes that have impacted on the parameters monitored must be noted. Explanation of significant deviations between actual results and any predictions made in previous reports must be provided;
  - 1.7 identification of breaches of limits specified in these conditions and significant variations from predicted results contained in any relevant DPMP or EMP, an explanation of why each identified breach of specified limits or variation from predictions occurred and details of the actions taken in response to each identified breach of limits or variance from predictions;
  - 1.8 a list of any issues, not discussed elsewhere in the report, that must be addressed to improve compliance with these conditions, and the actions that are proposed to address any such issues;
  - 1.9 a summary of fulfilment of environmental commitments made for the reporting period. This summary must include indication of results of the actions implemented and explanation of any failures to achieve such commitments; and
  - 1.10 a summary of any community consultation and communication undertaken during the reporting period.

**G8 Environmental Management Plan and review thereof**

- 1 Unless otherwise specified in writing by the Director, an Environmental Management Plan - Operations ('EMP Operations') for the activity must be submitted to the Director for approval by whichever of the following dates occurs first and at five yearly intervals thereafter:
  - 1.1 In the case of the Director having approved a previous EMP Operations, the fifth anniversary of the date of that approval;
  - 1.2 The fifth anniversary of the date on which these conditions take effect; or
  - 1.3 A date specified in writing by the Director.
- 2 The EMP Operations must include a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the EMP Operations.
- 3 The EMP Operations must detail the potential environmental impacts arising from the ongoing operation of the activity over the next 5 years, including a strategic consideration of potential changes to the activity during that period and consideration of opportunities to implement continuous improvement.
- 4 The EMP Operations must separately identify specific commitments, with actions and timeframes, to mitigate or prevent the identified potential environmental impacts. In preparing the EMP Operations the person responsible must take into account the contents of any previous annual environmental reviews including complaints, incidents and monitoring data.
- 5 If the Director issues guidelines for preparation of the EMP Operations, the EMP Operations must address the matters listed in those guidelines.
- 6 Unless otherwise specified in writing by the Director, the EMP Operations must not be implemented until it has been approved. Once approved the activity must be carried out in accordance with the approved EMP Operations, as may be amended or replaced from time to time with written approval of the Director.

**G9 Notification prior to wet commissioning**

At least 14 days prior to the commencement of wet commissioning of the in-vessel composting facility, the person responsible must notify the Director in writing of the date on which wet commissioning is expected to commence.

**G10 Emergency Response Plan**

Unless otherwise approved in writing by the Director, a detailed and site-specific Emergency Response Plan must be prepared and submitted to the Director for approval at least 30 days prior to the notification of commencement of operations. The Plan must be prepared in consultation with the Director, the State Emergency Service and the Tasmanian Fire Service. The activity must not commence until the Plan has been approved by the Director. Once approved, the activity must be undertaken in accordance with the Plan which has been approved in writing by the Director, and any subsequent amendment to the Plan approved in writing by the Director.

**Atmospheric****A1 Covering of vehicles**

Vehicles carrying loads containing material which may blow or spill must be equipped with effective control measures to prevent the escape of the materials from the vehicles when they leave The Land or travel on public roads. Effective control measures may include tarpaulins or load dampening.

**A2 Control of dust emissions**

Dust emissions from The Land must be controlled to the extent necessary to prevent environmental nuisance beyond the boundary of The Land.

**A3 Odour management**

The person responsible must institute such odour management measures as are necessary to prevent odours causing environmental nuisance beyond the boundary of The Land.

**A4 Odour Management Plan**

- 1 Unless otherwise approved in writing by the Director, an Odour Management Plan must be submitted to the Director for approval at least three (3) months prior to notification of the commencement of wet commissioning.
- 2 The Odour Management Plan must include, but not necessarily be limited to:
  - 2.1 an inventory of all potential odour sources at the Activity;
  - 2.2 an overview of the odour collection and abatement equipment in operation at the Activity;
  - 2.3 details of any proposed actions to be implemented to mitigate anticipated odours caused by any aspect of the Activity;
  - 2.4 contingency measures for unforeseen events such as power failures, fires, flooding, equipment breakdown, or process failure, to mitigate the risk of increasing odour emissions;
  - 2.5 a proposed methodology and frequency for regular odour inspections to be undertaken to ensure odours at the Activity are minimised to levels that are unlikely to cause environmental nuisance at nearby sensitive receptors;
  - 2.6 details of a proposed biofilter and scrubber maintenance and management program to ensure their optimal performance, taking into consideration intermittent and variable production rates, odour input sources and flow rates. Details must include monitoring parameters, methodology, and proposed ongoing monitoring frequency, and should include details of key indicators for monitoring performance of biofilters and scrubbers; and
  - 2.7 a procedure for recording and acting upon any increase in odour emissions.
- 3 The requirements of this condition will be deemed to be satisfied only when the Director indicates in writing that the submitted document adequately addresses the requirements of this condition to his or her satisfaction.
- 4 The Activity must be undertaken in accordance with the approved Odour Management Plan, and any subsequent amendments to the Plan, as approved in writing by the Director.

**A5 Odour sampling**

- 1 Unless otherwise approved in writing by the Director, sampling of odour emissions from the activity must be undertaken within 15 months of notification of wet commissioning, and at any other time as required in writing by the Director.
- 2 The proposed odour sampling methodology must be submitted to the Director for approval 30 days prior to notification of wet commissioning.
- 3 The methodology must include:
  - 3.1 identification of potential odour sources on The Land;
  - 3.2 proposals for measurement of odour emissions from the identified odour sources;
  - 3.3 recommendations for seasonal and operating conditions most suitable for undertaking the odour sampling; and

- 3.4 a timetable for the completion of the odour sampling.
- 4 Sampling of odour emissions must be conducted by personnel or laboratories approved by the Director and in accordance with methods approved by the Director.
- 5 An Odour Sampling Report containing odour sampling results must be submitted to the Director within two (2) months of odour sampling required by this condition being completed.
- 6 Unless otherwise approved in writing by the Director, the Odour Sampling Report must include the following information:
  - 6.1 the location and operational characteristics of all identified odour sources;
  - 6.2 odour emission rates determined in the odour sampling; and
  - 6.3 plant condition at the time of sampling.

#### **A6 Atmospheric Dispersion Modelling**

- 1 Within 30 days of the submission of the Odour Sampling Report required by Condition A5, a proposed atmospheric dispersion modelling methodology must be submitted to the Director for approval.
- 2 Unless otherwise approved in writing by the Director, Atmospheric Dispersion Modelling must be completed in accordance with the approved methodology, and a report submitted to the Director, within two (2) months of submission of the Odour Sampling Report.
- 3 The atmospheric dispersion modelling must be conducted by personnel or a consultancy approved by the Director, and in accordance with methods approved by the Director.
- 4 The atmospheric dispersion modelling results must be provided in the form of a written report and must include:
  - 4.1 a map of The Land and surrounding area showing the following particulars:
    - 4.1.1 the location of all odour sources;
    - 4.1.2 the boundary of The Land;
    - 4.1.3 ground level concentration contours (isopleths) of odour with a key or legend; and
    - 4.1.4 the location of the nearest sensitive receptors.
  - 4.2 details of the limits and criteria specified in the Air Quality EPP that are relevant to the activity;
  - 4.3 modelled odour concentrations predicted by the model at the boundary of The Land and at the nearest sensitive receptors;
  - 4.4 identification of any exceedances of the relevant limits and criteria specified in the Air Quality EPP; and
  - 4.5 details of mitigation measures proposed to address each identified exceedance of the relevant limits or criteria in the Air Quality EPP.

#### **A7 Biofilter monitoring**

- 1 Unless otherwise approved in writing by the Director, the biofilters must be monitored by a suitably qualified person to evaluate the condition and performance of the biofilters as follows:
  - 1.1 Within three (3) months of the notification of wet commissioning;
  - 1.2 Quarterly thereafter for a period of 24 months from the date of the first monitoring event;
  - 1.3 Bi-annually from 24 months to 48 months from the date of the first monitoring event; and

- 1.4 At least annually thereafter, or as otherwise required in writing by the Director.
- 2 The evaluation of the condition and performance for each of the biofilters must include, but not necessarily be limited to:
  - 2.1 measurement of the flow rate, temperature, relative humidity and the differential pressure of the gas at the inlet to the biofilter;
  - 2.2 measurement of odour concentration in odour units, at the inlet and outlet of the biofilter; and
  - 2.3 description of characteristic and hedonic tone.
- 3 Records of the biofilter monitoring must be retained for a period not less than three (3) years and must be made available to an Authorized Officer on request.

## **Construction**

### **CN1 Construction Environmental Management Plan**

- 1 At least 30 days prior to the commencement of construction activities, or by a date otherwise specified in writing by the Director, a Construction Environmental Management Plan ('Construction EMP') must be submitted to the Director for approval.
- 2 The Construction EMP must contain a detailed description of the proposed timing and sequence of the major construction activities and of the proposed management measures to be implemented to avoid or minimise the environmental impacts during the construction phase. The Construction EMP must include, but not necessarily be limited to, management measures in relation to the following:
  - 2.1 prevention of impacts upon surface water and waterways;
  - 2.2 stormwater management, including erosion and sediment controls;
  - 2.3 odour control;
  - 2.4 noise control;
  - 2.5 dust control;
  - 2.6 management of environmentally hazardous materials;
  - 2.7 cultural (Aboriginal and non-aboriginal) heritage considerations;
  - 2.8 flora and fauna management;
  - 2.9 weed, pest and disease management;
  - 2.10 quality control arrangements including supervision by appropriately qualified and experienced persons, detailed construction specifications for key items of environmental management infrastructure, documented site procedures, quality control testing and the keeping of appropriate records; and
  - 2.11 acid sulphate soil management (if identified in pre construction testing).
- 3 Construction must not commence until the Construction EMP has been approved by the Director.
- 4 Unless otherwise specified in writing by the Director, construction activities must be carried out in accordance with an approved Construction EMP.

### **CN2 Operating hours - Construction**

- 1 Unless otherwise approved in writing by the Director:
  - 1.1 Construction activities must not be undertaken outside 0700 hours to 1700 hours Monday to Friday; and
  - 1.2 Notwithstanding the above paragraph, the construction activities must not be carried out on Saturdays, Sundays or Public Holidays that are observed State-wide (Easter Tuesday excepted).

## **Decommissioning And Rehabilitation**

### **DC1 Temporary suspension of activity**

- 1 Within 30 days of becoming aware of any event or decision which is likely to give rise to the temporary suspension of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to suspend or has suspended.
- 2 During temporary suspension of the activity:
  - 2.1 The Land must be managed and monitored by the person responsible for the activity to ensure that emissions from The Land do not cause serious environmental harm, material environmental harm or environmental nuisance; and
  - 2.2 If required by the Director a Care and Maintenance Plan for the activity must be submitted, by a date specified in writing by the Director, for approval. The person responsible must implement the approved Care and Maintenance Plan, as may be amended from time to time with written approval of the Director.
- 3 Unless otherwise approved in writing by the Director, if the activity on The Land has substantially ceased for 2 years or more, rehabilitation of The Land must be carried out in accordance with the requirements of these conditions as if the activity has permanently ceased.

### **DC2 Notification of cessation**

Within 30 days of becoming aware of any event or decision which is likely to give rise to the permanent cessation of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to cease or has ceased.

### **DC3 DRP requirements**

Unless otherwise approved in writing by the Director, a Decommissioning and Rehabilitation Plan (DRP) for the activity must be submitted for approval to the Director within 30 days of the Director being notified of the planned cessation of the activity or by a date specified in writing by the Director. The DRP must be prepared in accordance with any guidelines provided by the Director.

### **DC4 Rehabilitation following cessation**

- 1 Following permanent cessation of the activity, and unless otherwise approved in writing by the Director, The Land must be rehabilitated including:
  - 1.1 stabilisation of any land surfaces that may be subject to erosion;
  - 1.2 removal or mitigation of all environmental hazards or land contamination, that might pose an on-going risk of causing environmental harm; and
  - 1.3 decommissioning of any equipment that has not been removed.
- 2 Where a Decommissioning and Rehabilitation Plan (DRP) has been approved by the Director, decommissioning and rehabilitation must be carried out in accordance with that plan, as may be amended from time to time with written approval of the Director.

## **Discharge**

### **DS1 Firefighting wastewater**

In the event of a fire, potentially contaminated wastewater arising from firefighting must be treated on The Land to the satisfaction of the Director or removed from the site by a person holding all necessary approvals for such transport.

## **Effluent Disposal**

### **E1 Stormwater**

Unless otherwise approved in writing by the Director, polluted stormwater that will be discharged from The Land must be directed to the Dulverton Landfill stormwater management system. Treatment of polluted or potentially polluted stormwater must occur prior to discharge to the environment, to the extent necessary to prevent serious or material environmental harm, or environmental nuisance.

### **E2 Retention of sediment**

During construction activities all reasonable measures must be implemented to ensure that solids entrained in stormwater traversing the construction site are retained on The Land. Such measures may include provision of strategically located sediment fences, and appropriately sized and maintained sediment settling ponds.

### **E3 Perimeter drains or bunds**

- 1 Perimeter cut-off drains, or bunds, must be constructed at strategic locations on The Land to prevent surface run-off from entering the area used or disturbed in carrying out the activity. All reasonable measures must be implemented to ensure that sediment transported along these drains, or bunds, is directed to the Dulverton Landfill stormwater management system. Such measures may include provision of strategically located sediment fences, appropriately sized and maintained sediment settling ponds, vegetated swales, detention basins and other measures designed and operated in accordance with the principles of the Best Practice Erosion and Sediment Control document.
- 2 Drains, or bunds, must have sufficient capacity to contain run-off that could reasonably be expected to arise during a five (5) percent annual exceedance probability rainfall event. Maintenance activities must be undertaken regularly to ensure that this capacity does not diminish.

### **E4 Leachate management**

- 1 A leachate collection system must be installed to prevent leachate generated during operation of the activity from polluting groundwater or surface waters.
- 2 Leachate on The Land must be managed such that:
  - 2.1 it does not cause an odour nuisance beyond the boundary of The Land; and
  - 2.2 human contact with leachate is minimised.
- 3 Any waters that have been, or have potentially been, in contact with waste(s) must be captured by the leachate collection system.

## **Hazardous Substances**

### **H1 Spill kits**

Spill kits appropriate for the types and volumes of materials handled on The Land must be kept in appropriate locations and maintained in a functional condition to assist with the containment of spilt environmentally hazardous materials.

### **H2 Storage and handling of hazardous materials**

- 1 Unless otherwise approved in writing by the Director, environmentally hazardous materials held on The Land must be:
  - 1.1 stored within impervious bunded areas, spill trays or other containment systems; and

- 1.2 managed to prevent unauthorised discharge, emission or deposition of pollutants:
  - 1.2.1 to soils within the boundary of The Land in a manner that is likely to cause serious or material environmental harm;
  - 1.2.2 to groundwater;
  - 1.2.3 to waterways; or
  - 1.2.4 beyond the boundary of The Land.

### H3 Handling of hazardous materials - mobile

- 1 Where mobile containment of environmentally hazardous materials is utilised for the fuelling or servicing of mobile or fixed plant on The Land, all reasonable measures must be implemented to prevent unauthorised discharge, emission or deposition of pollutants:
  - 1.1 to soils within the boundary of The Land in a manner that is likely to cause serious or material environmental harm;
  - 1.2 to groundwater;
  - 1.3 to waterways; or
  - 1.4 beyond the boundary of The Land.
- 2 Reasonable measures may include spill kits, spill trays/bunds or absorbent pads, and automatic cut-offs on any pumping equipment.

### H4 Record of controlled wastes

- 1 A record of all controlled waste received or generated on The Land must be kept. This record must include:
  - 1.1 the controlled waste category set down in the *National Environment Protection (Movement of Controlled Waste Between States and Territories) Measure 1998* and waste code associated with the waste category, or where applicable, the description of the controlled waste as defined in the *Environmental Management and Pollution Control (Waste Management) Regulations 2020*;
  - 1.2 the quantity of controlled waste received or generated;
  - 1.3 the fate (e.g. stored, disposed or transported off The Land) of the controlled waste;
  - 1.4 where available, the person or organisation which generated the waste.

## Monitoring

### M1 Samples and measurements for monitoring purposes

- 1 Any sample or measurement required under these conditions must be taken and processed in accordance with the following:
  - 1.1 sampling and measuring must be undertaken by a person with training, experience, and knowledge of the appropriate procedure;
  - 1.2 the integrity of samples must be maintained prior to delivery to a testing facility;
  - 1.3 sample analysis must be conducted by a testing facility accredited by the National Association of Testing Authorities (NATA), or a testing facility approved in writing by the Director, for the specified test;
  - 1.4 details of methods employed in taking samples and measurements and results of sample analysis, and measurements must be retained for at least three (3) years after the date of collection; and
  - 1.5 sampling and measurement equipment must be maintained and operated in accordance with manufacturer's specifications and records of maintenance must be retained for at least three (3) years.

## **M2 Waste data reporting**

- 1** The person responsible must submit a report to the Director detailing the quantity (in tonnes) of compost produced (for example, which does not meet the pasteurisation standards of the *Australian Standard AS 4454: 2012 Composts, soil conditioners and mulches*), and/or any other waste materials produced associated with the Activity (for example, packaging), which are disposed of to landfill during each financial year.
- 2** The report must be in a format approved in writing by the Director, and submitted to the Director within three (3) months of the end of the reporting period.

## **M3 Water Monitoring Plan**

- 1** Within six (6) months of these conditions taking effect, or by a date otherwise specified in writing by the Director, a Water Monitoring Plan (WMP) must be submitted for approval in writing by the Director.
- 2** Unless otherwise approved in writing by the Director the WMP must:
  - 2.1** be prepared in accordance with any relevant guidance provided by the Director.
  - 2.2** include within its scope surface water, groundwater and leachate, for the purpose of detecting environmental harm arising from the activity;
  - 2.3** without limitation include:
    - 2.3.1** a Conceptual Site Model (CSM), including potential source-pathway-receptor linkages;
    - 2.3.2** details and justification for:
      - 2.3.2.1** monitoring locations, including a map(s) and table(s) of coordinates;
      - 2.3.2.2** sampling frequency and measurement parameters; and
      - 2.3.2.3** sampling and measurements methods.
    - 2.3.3** quality assurance and quality control procedures;
    - 2.3.4** where applicable, trigger levels, and actions to be taken when those trigger levels are met;
    - 2.3.5** a table containing all the major requirements in the WMP;
    - 2.3.6** an implementation timetable for key aspects of the WMP; and
    - 2.3.7** a reporting program to regularly advise the Director of the progress in implementing the WMP.
  - 2.4** Where the WMP requires the installation of new groundwater bores, those bores must be installed within six (6) months of the date on which the Director approves the WMP.
  - 2.5** The Director must be notified of the installation of any bore specified by the WMP within three (3) months of its completion and a geological log and completion report, including surveyed location and elevation for each newly installed bore, must be provided with the notification. Surveying must be undertaken by a suitable surveyor.
- 3** Unless otherwise specified by the Director, the WMP must not be implemented until it has been approved by the Director, and once approved, the monitoring of the activity must be carried out in accordance with the WMP.
- 4** In the event that the Director, by notice in writing, either approves a minor variation to the approved WMP or approves a new WMP, the person responsible must implement and act in accordance with the varied WMP or the new WMP, as the case may be.

#### **M4 Water Monitoring Reporting**

- 1** In the event that any trigger levels in the WMP are exceeded, the Director must be notified of the exceedance and the follow up actions taken, within five (5) working days of the person responsible becoming aware of the exceedance.
- 2** Within three (3) months of the end of the reporting period a Water Monitoring Report (WMR) for the activity must be submitted for approval in writing by the Director.
- 3** Unless otherwise specified in writing by the Director, the WMR must be prepared in a form approved by the Director and in accordance with any guidelines, if supplied, relating to the preparation or provision of information within the WMR, and without limitation must, include:
  - 3.1** the date(s) and time(s) of measurements;
  - 3.2** method(s) used to produce the measurements;
  - 3.3** results and interpretation of results, including assessment of temporal trends;
  - 3.4** an assessment of quality assurance and quality control measures;
  - 3.5** actions taken in response to trigger levels being met;
  - 3.6** if applicable, an updated Conceptual Site Model (CSM) that reflects contemporary understanding of the activity and its impacts;
  - 3.7** where source-pathway-receptor linkages are identified, an assessment of the risk to human health and the environment;
  - 3.8** an assessment of the adequacy of the management measures in place and recommendations on what, if any, additional management measures are required, to address the identified risks to human health and the environment; and
  - 3.9** an assessment of the adequacy of the Water Management Plan (WMP) to detect environmental harm arising from the activity and, if applicable, recommendations for changes to the WMP.

#### **M5 Monitoring plan of composting process**

- 1** Within three (3) months of the notification of wet commissioning, or by a date otherwise specified in writing by the Director, a set of operational parameters with applicable limits must be submitted to the Director for approval.
- 2** The parameters must ensure that the final compost product meets the applicable pasteurisation standards of the *Australian Standard AS 4454: 2012 Composts, soil conditioners and mulches*.
- 3** Unless otherwise specified by the Director, once approved in writing by the Director, the Activity must be carried out in accordance with the approved operational parameters.
- 4** In the event that the Director, by notice in writing, either approves a minor variation to the approved operational parameters or approves a new operational parameter, the person responsible must implement and act in accordance with the varied or new operational parameter(s), as the case may be.
- 5** All monitoring data collected in accordance with this condition, along with the protocols involved in conducting monitoring, must be made available to an Authorized officer upon request.

#### **Noise Control**

##### **N1 Noise survey requirements**

- 1** Unless otherwise approved in writing by the Director, a noise survey must be completed:

- 1.1 within three (3) months after notification of wet commissioning is provided; and
- 1.2 within six (6) months after any change to the activity which is likely to substantially alter the character or increase the volume of noise emitted from The Land; and
- 1.3 where the Director is of the opinion that a noise survey must be completed within a specified timeframe.

## **N2 Control of noise emissions**

Where human sleep disturbance may be caused by the noise from the activity or transport movements resulting from the activity, such noise emissions must be controlled to the extent necessary to prevent environmental nuisance, this may include restricting operating hours.

## **N3 Noise Survey Method and Reporting**

- 1 Noise surveys must be undertaken in accordance with a survey method approved in writing by the Director, as may be amended from time to time with written approval of the Director.
- 2 Without limitation, the survey method must address the following:
  - 2.1 measurements must be carried out at day, evening and night times (where applicable) at each location;
  - 2.2 simultaneous source measurements must be conducted to compare against the noise levels measured at each receiver location;
  - 2.3 source noise levels and characteristics of each item of equipment of concern; and
  - 2.4 measurement locations, and the number thereof, must be specified, with one location established as a control location (noise).
- 3 Measurements and data recorded during the survey must include:
  - 3.1 operational status of noise producing equipment and throughput of the activity;
  - 3.2 subjective descriptions of the sound at each location;
  - 3.3 details of meteorological conditions relevant to the propagation of noise; and
  - 3.4 the equivalent continuous ( $L_{eq}$ ) and  $L_1$ ,  $L_{10}$ ,  $L_{50}$ ,  $L_{90}$  and  $L_{99}$  A-weighted sound pressure levels measured over a period of 10 minutes or an alternative time interval specified by the Director.
- 4 A noise survey report must be forwarded to the Director within 30 days from the date on which the noise survey is completed
- 5 The noise survey report must include the following:
  - 5.1 the results and interpretation of the measurements required by these conditions;
  - 5.2 a map of the area surrounding the activity with the boundary of The Land, measurement locations, and noise sensitive premises clearly marked on the map;
  - 5.3 any other information that will assist with interpreting the results and whether the activity is in compliance with these conditions and EMPCA; and
  - 5.4 recommendations of appropriate mitigation measures to manage any noise problems identified by the noise survey.

## **N4 Noise emission limits**

- 1 Noise emissions from the activity at any noise sensitive premises in other ownership when expressed as the equivalent continuous A-weighted sound pressure level must not exceed:
  - 1.1 40 dB(A) between 0700 hours and 1800 hours (Day time); and
  - 1.2 35 dB(A) between 1800 hours and 2200 hours (Evening time); and
  - 1.3 30 dB(A) between 2200 hours and 0700 hours (Night time).

- 2 Where the combined level of noise from the activity and the normal ambient noise exceeds the noise levels stated above, this condition will not be considered to be breached unless the noise emissions from the activity are audible and exceed the background noise levels by at least 5 dB(A).
- 3 The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified in writing by the Director.
- 4 Measured noise levels must be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the Tasmanian Noise Measurement Procedures Manual.
- 5 All methods of measurement must be in accordance with the Tasmanian Noise Measurement Procedures Manual.

## **Operations**

### **OP1 Operational Procedures Manual Pre-commencement**

- 1 An Operational Procedures Manual ('the Manual') must be developed prior to commencement of the activity. The Manual must provide detailed information relating to the activity and must detail operational procedures as required to ensure compliance with these conditions.
- 2 The Manual must be prepared in accordance with any reasonable guidelines provided by the Director. If no guidelines are provided, the Manual must:
  - 2.1 be written in an easy to understand format, with checklists, diagrams and photographs as appropriate.
  - 2.2 be available for easy reference by operational staff, including any documents referenced by the Manual
  - 2.3 be clear about who is responsible for carrying out tasks, as well as how, when or how often tasks should be performed.
- 3 The Manual must be kept up to date, and reviewed at least annually, and must take into account environment related complaints, incidents and changes to the activity.

### **OP2 Open windrow composting**

- 1 Composting on The Land must not be undertaken outside of the 'in-vessel composting facility' marked on Attachment 1 unless otherwise approved in writing by the Director.
- 2 The composting pad, leachate pond and associated irrigation network retained on The Land from the previous composting operation may only be used for composting purposes for limited-duration emergency responses, and only with the written approval, and in accordance with any specified requirements, of the Director.

### **OP3 Weed management**

The Land must be kept substantially free of weeds to minimise the risk of weeds being spread through the transport of products from The Land.

### **OP4 Receivable wastes**

- 1 Unless otherwise approved in writing by the Director, only the following materials may be received, stored or used in composting on The Land:
  - 1.1 Green wastes, including garden organics (Council kerbside and other sources), crop residuals and cannabis;
  - 1.2 Food and beverage processing waste;
  - 1.3 Farm feed shed wastes;
  - 1.4 Stock feed wastes;
  - 1.5 Macerated fish;

- 1.6 Poultry and fish including mortality;
- 1.7 Class 1 and Class 2 biosolids, and contaminant Grade A or B sewage sludge;
- 1.8 Small animal abattoir residuals;
- 1.9 Food organics (Council kerbside-collected food organics and garden organics known as 'FOGO' and source separated commercial collections);
- 1.10 Wood fibre, including sawdust;
- 1.11 Processed plant residues;
- 1.12 Whey waste;
- 1.13 Waste brewers yeast;
- 1.14 Other organic wastes, that are not controlled wastes; and
- 1.15 Other liquid wastes as follows:
  - 1.15.1 Leachate from the leachate collection tanks; and
  - 1.15.2 Dairy wastewater; and
  - 1.15.3 Grease trap waste.
- 2 Where there is doubt concerning whether the classification of a waste is a 'controlled waste', then clarification must be sought from the Director.

#### **OP5 Storage of feedstock**

- 1 All receivable wastes or feedstock received on The Land must be stored within the 'in-vessel composting' building, with the exception of non-putrescible waste.
- 2 All putrescible feedstock must be processed within 24 hours after delivery to The Land.
- 3 Management of non-putrescible wastes must be included in the Operational Procedures Manual Pre-Commencement required under condition OP1.

#### **OP6 Site hygiene and biosecurity**

- 1 Washdown facilities for vehicles delivering waste must be provided and maintained by the person responsible.
- 2 Washdown water from transport containers and vehicles must not leave The Land and must report to the leachate collection system.
- 3 Transport equipment and vehicles delivering waste must be washed in the designated areas to ensure that the washing process does not cause an odour nuisance beyond the boundary of The Land.
- 4 The premises and equipment, including transport equipment and vehicles, must be maintained and cleaned as necessary to prevent the accumulation of putrescible materials that may give rise to odour.

#### **OP7 Fencing**

- 1 The leachate pond retained for emergency use only must be contained with a stock-proof fence sufficient to restrict entry of native animals.
- 2 Any fencing must be designed and operated to minimise the risk for swift parrot collisions, in accordance with the principles of the *Guidelines and recommendations for parrot-safe building design: Minimising the swift parrot collision threat*, dated 2008 and published by the World Wildlife Fund - Australia.

#### **OP8 Hours of operation and site staff**

- 1 Subject to the following paragraph the composting facility must not be open for the reception of waste outside the hours of 0700 hours to 1700 hours Monday to Saturday.

- 2 The responsible person may allow reception of waste on The Land outside the normal operating hours specified in the above paragraph where a specific prior arrangement has been made, providing all other conditions are complied with.
- 3 While The Land is open for reception of waste, The Land must be attended by a person or persons whose duties must include supervising the management of waste deposition and ensuring compliance with these conditions.
- 4 The hours of operation must be posted on a sign, which must be erected and maintained at the entrance to The Land.
- 5 Access to The Land must be through a gate that must be secured to prevent unauthorised access when The Land is unattended.

#### **OP9 Fire management**

- 1 Any fire occurring on The Land must immediately be reported to the Director.
- 2 Fires occurring on The Land must be extinguished as soon as practicable using all practicable means available.
- 3 The lighting of fires on The Land is not permitted.

#### **OP10 Disposal of compost**

Unless otherwise approved in writing by the Director, any finished compost product not meeting the pasteurisation standards of the *Australian Standard AS 4454: 2012 Composts, soil conditioners and mulches* must either be taken to landfill for burial or use as daily cover, or placed back within the composting tunnel for further treatment, within 24 hours of it being determined not to meet the pasteurisation standards of the Australian Standard.

#### **OP11 Transitional arrangements**

- 1 Unless otherwise approved in writing by the Director, 30-days after notification of wet commissioning occurring, no waste is to be deposited on The Land for the purposes of open windrow composting;
- 2 After the period specified in the above clause, any existing compost windrows may be completed in accordance with normal procedures for open windrow composting; and
- 3 Upon the last compost windrow being matured, The Land not being used for in-vessel composting must be decommissioned and rehabilitated to the written satisfaction of the Director.

## Schedule 3: Information

### Legal Obligations

#### **LO1 Storage and handling of dangerous goods, explosives and dangerous substances**

- 1 The storage, handling and transport of dangerous goods, explosives and dangerous substances must comply with the requirements of relevant State Acts and any regulations thereunder, including:
  - 1.1 *Work Health and Safety Act 2012* and subordinate regulations;
  - 1.2 *Explosives Act 2012* and subordinate regulations; and
  - 1.3 *Dangerous Goods (Road and Rail Transport) Act 2010* and subordinate regulations.

#### **LO2 EMPCA**

The activity must be conducted in accordance with the requirements of the *Environmental Management and Pollution Control Act 1994* and Regulations thereunder. The conditions of this document must not be construed as an exemption from any of those requirements.

#### **LO3 Controlled waste transport**

Transport of controlled wastes to and from The Land must be undertaken only by persons authorised to do so under EMPCA or subordinate legislation.

### Other Information

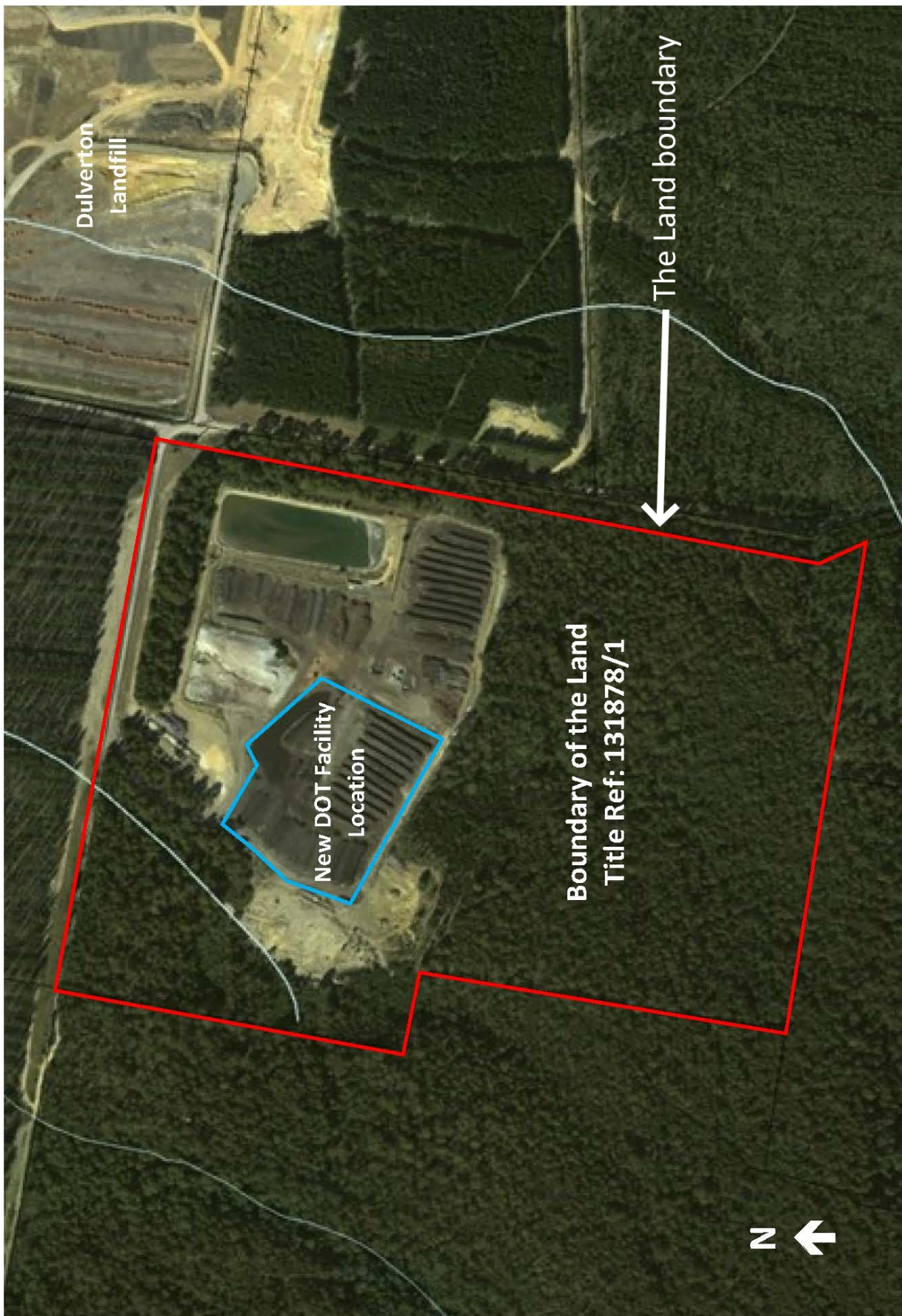
#### **OI1 Waste management hierarchy**

- 1 Wastes should be managed in accordance with the following hierarchy of waste management:
  - 1.1 waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;
  - 1.2 waste should be re-used or recycled to the maximum extent that is practicable; and
  - 1.3 waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

#### **OI2 Notification of incidents under section 32 of EMPCA**

Where a person is required by section 32 of EMPCA to notify the Director of the release of a pollutant, the Director can be notified by telephoning **1800 005 171** (a 24-hour emergency telephone number).

# Attachment 1: The Land



Ref: The LISTMap, September 2021



ENVIRONMENT PROTECTION AUTHORITY