



## Application for Licence Amendment

### Division 3, Part V *Environmental Protection Act 1986*

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<b>Licence Number</b>	L8968/2016/1
<b>Licence Holder</b>	Cleartech Waste Management Pty Ltd
<b>ACN</b>	143 715 459
<b>File Number</b>	DER2016/000647
<b>Premises</b>	Cleartech Waste Management Units 3 and 4, 390 Victoria Road MALAGA WA 6090  Being part of Lot 72 on Diagram 97213 Certificate of Title Volume 2509 Folio 2 As defined by the coordinates in Schedule 1 of the Amended Licence
<b>Date of Report</b>	22 October 2018
<b>Status of Report</b>	Final

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## 1. Definitions of terms and acronyms

In this Decision Report, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

Term	Definition
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
Amended Licence	the amended Licence issued under Part V, Division 3 of the EP Act following the finalisation of this Review.
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CS Act	<i>Contaminated Sites Act 2003 (WA)</i>
Decision Report	refers to this document.
Delegated Officer	an officer under section 20 of the EP Act.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of the <i>Environmental Protection Act 1986</i> along with other legislation.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of, and during this Review
Licence Holder	Cleartech Waste Management Pty Ltd
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (WA)</i>
Occupier	has the same meaning given to that term under the EP Act.
Prescribed Premises	has the same meaning given to that term under the EP Act.

Term	Definition
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report
Risk Event	As described in <i>Guidance Statement: Risk Assessment</i>

## 2. Purpose and scope of assessment

Cleartech Waste Management Pty Ltd (Licence Holder) submitted an application to amend Licence L8968/2016/1 on 18 January 2018 (the Application) to increase the throughput for Categories 61 (liquid waste facility) and 62 (solid waste depot), and to include a number of additional waste categories. The Licence Holder has also sought to authorise the shredding of beverage containers at the Premises which meets the description of Category 61A (solid waste facility).

In addition to the Application, this assessment also considers the appropriateness of Condition 2.2.1 relating to noise monitoring. Risks associated with other aspects of operations at the Premises have not been reassessed at this time.

Changes reflected in Amendment Notice 1 (granted 5 April 2018), relating to the extension of the licence duration have also been incorporated into the Amended Licence.

As a result of this assessment, the Existing Licence is replaced by the Amended Licence set out in Attachment 1.

### 2.1 Application details

Table 2 lists the documents submitted during the assessment process.

**Table 2: Documents and information submitted during the assessment process**

Document/information description	Date received
Application Form (Cleartech Waste Management Pty Ltd)	18 January 2018
Additional information (Cleartech Waste Management Pty Ltd)	9 March 2018
Licence Holder comments on draft amended licence and additional information (Cleartech Waste Management Pty Ltd)	19 September 2018

The proposed categories and throughputs associated with the Application are outlined in Table 3 below. Additionally, Category 61A is to replace Category 62 in the Licence as this category is more appropriate to authorise the shredding of beverage containers and waste storage related aspects at the Premises.

**Table 3: Proposed throughput changes**

Category	Current throughput	Proposed throughput	Description of proposed amendment
61 – Liquid waste facility	2,000 tonnes per annual period	5,000 tonnes per annual period	The Licence Holder has requested an increase in throughput for Category 61 to include the acceptance of additional waste types as detailed in Table 4.
61A – Solid waste facility	N/A – Previously licensed under Category 62 for 1,000 tonnes	10,000 tonnes per annual period.	The Licence Holder has requested an increase in throughput for Category 62 to allow the acceptance of additional waste types as detailed in Table 4.  Given the request to allow shredding of beverage containers, the Delegated Officer considers Category 61A is more appropriate than Category 62.
62 – Solid waste depot	1,000 tonnes per annual period	N/A	As above, Category 62 has now been replaced by Category 61A.

Within the proposed throughput increases (Table 4) the Licence Holder seeks changes to waste acceptance conditions to include additional waste types as part of this amendment as detailed in Table 4 below.

**Table 4: Proposed waste type changes**

Waste Code	Waste Type	Current throughput capacity (per annual period)	Proposed throughput (per annual period)	Description of proposed amendment
N/A	Putrescible	260 tonnes	1,000 tonnes	Increase in throughput from 5 tonnes of putrescible material per week to 15 tonnes per week for the longer term.  The projected throughput for the 2019-2020 period is 10 tonnes per week.
N/A	Hydrocarbon contaminated solid waste (oily rags, hydraulic hoses etc.)	260 tonnes	1,000 tonnes	Increase in throughput
D220	Lead and lead compounds	Combined premises total of 150 tonnes of inorganic chemicals	5,000 tonnes	Increase in throughput predominantly to allow for the acceptance of lead contaminated fire assay ceramic pots and slag material for consolidation with the addition of lime/calcium chloride/phosphate prior to sending to Class III or IV landfill (see Section 2.1.1 below).
K200	Food and beverage processing wastes	None specified – wasn't previously authorised for acceptance.  The Applicant advised they are currently receiving 300 tonnes per annum and going to a projected 700 tonnes per annum by the 2019-2020 period.	700 tonnes	The Licence Holder is seeking approval for the processing/ crushing of beverages at the Premises.  Beverages to be shredded will be in plastic or aluminium can packaging with the weight of the liquid food product being greater than 95% weight of the product.  The shredder is located inside a bunded, concrete tilt up shed. The beverages containers are shredded into an open bin with the liquid contents drained. The drained packaging is rotated into a normal general waste bin.  The drained liquid material will be stored in an Intermediate Bulk Container (IBC) until collection using a vacuum tanker. This liquid will then be transported offsite to a composting facility.  All storage and handling will be undertaken within the bunded area of the Premises.



Waste Code	Waste Type	Current throughput capacity (per annual period)	Proposed throughput (per annual period)	Description of proposed amendment
K110	Waste from grease traps	None specified – wasn't previously authorised for acceptance	10 tonnes	<p>The Licence Holder has provided that these wastes will be packaged only. The Application states that these will be processed inside banded processing areas inside two units as per the waste currently licensed to be accepted at the Premises.</p> <p>The Application states that there will be no additional fire or explosion risks compared to the materials currently licensed to be accepted at the Premises. The Application also states that there will be no additional emissions generated compared to the materials currently licenced to be accepted at the Premises.</p>
M100	Waste substances and articles containing polychlorinated biphenyls (PCBs)	None specified – wasn't previously authorised for acceptance	50 tonnes	
M105	Waste substances and articles containing polybrominated biphenyls (PBB), polychlorinated naphthalenes (PCN), and/or polychlorinated terphenyls (PCT)	None specified – wasn't previously authorised for acceptance	50 tonnes	
M150	Phenols, phenol compounds including halogenated phenols	None specified – wasn't previously authorised for acceptance	50 tonnes	
M160	Organohalogen compounds not elsewhere listed	None specified – wasn't previously authorised for acceptance	500 tonnes	
M170	Polychlorinated dibenzofuran (Any congener)	None specified – wasn't previously authorised for acceptance	50 tonnes	
M180	Polychlorinated dibenzo p-dioxin (any congener)	None specified – wasn't previously authorised for acceptance	50 tonnes	
M260	Highly odorous organic chemicals including mercaptans and acrylates	None specified – wasn't previously authorised for acceptance	50 tonnes	
M270	Per- and poly-fluoroalkyl substances (PFAS) contaminated materials, including waste PFAS containing products and contaminated containers	None specified – wasn't previously authorised for acceptance	50 tonnes	

Waste Code	Waste Type	Current throughput capacity (per annual period)	Proposed throughput (per annual period)	Description of proposed amendment
N190	Filter cake containing a controlled waste	None specified – wasn't previously authorised for acceptance	250 tonnes	
N205	Industrial waste treatment plant residue	None specified – wasn't previously authorised for acceptance	250 tonnes	
N230	Ceramic based fibres with physico-chemical characteristics similar to asbestos	None specified – wasn't previously authorised for acceptance	50 tonnes	
T120	Waste from production or formulation of photographic chemicals or processing materials.	None specified – wasn't previously authorised for acceptance	10 tonnes	

This amendment also considers the appropriateness of Condition 2.2.1 of the Existing Licence. This condition relates to noise monitoring and was included in the Existing Licence to demonstrate that the operations comply with the night-time assigned levels.

The original Application also requested the acceptance of tyres and asbestos material, however this has been removed on request of the Applicant (see Appendix 3).

### 2.1.1 Acceptance of Lead and lead compounds and associated treatment and disposal proposal

The Licence Holder sought separate advice from DWER on 23 January 2018 regarding the acceptability of a treatment process for the immobilisation of lead contaminated fire assay waste, specifically waste ceramic pots and slag waste streams that are currently stored at the Cityscore Ptd Ltd's premises at 42-48 Kelvin Road, Maddington (L7845/2003/5). The proposed treatment process involved combining waste materials with superphosphate fertiliser to immobilise the lead through the formation of lead phosphate minerals such as pyromorphite.

Based on the information presented in the proposal DWER determined that it did not support the proposed waste immobilisation/treatment process as it does not consider it appropriate to render the waste suitable for long-term disposal. The Licence Holder was informed of this position in a letter dated 15 June 2018. Additional advice was also provided on an appropriate approach to characterising and treating waste materials.

On 27 June 2018, DWER met with the Licence Holder to further discuss waste characterisation and treatment options. During the meeting it was conveyed to the Licence Holder that the Existing Licence does not currently authorise the treatment of waste materials and thus further amendments to the Existing Licence will be required to enable any related treatment proposal.

**The Delegated Officer has reviewed information from the Licence Holder regarding the immobilisation of lead contaminated fire assay waste and has found:**

1. The Licence Holder requested a throughput increase to 5,000 tonnes per annum for lead contaminated fire assay ceramic pots and slag as part of this Application.
2. The requested throughput relates to the proposed waste immobilisation/ treatment process involving the combining of waste materials with superphosphate fertiliser to immobilise the lead through the formation of lead phosphate minerals such as pyromorphite.
3. On 15 June 2018, DWER provided advice to the Licence Holder in respect of the immobilisation/treatment process and determined that it does not support the proposed waste immobilisation/ treatment process.
4. In a meeting on 27 June 2018 DWER advised the Licence Holder that the Existing Licence does not currently authorise the treatment of waste materials and thus further amendments to the Existing Licence will be required to enable any related treatment proposal.

**Taking into consideration the above, the Delegated Officer does not consider it appropriate to amend the Licence to increase the throughput of D220 at this time.**

### 3. Background

The Licence Holder operates a Category 62 and 61 waste transfer facility in the City of Swan (the Premises). The Premises receives bulk and packaged controlled wastes from industries within Perth and Western Australia including manufacturing, oil and gas, mining, government, healthcare and automotive sectors. Waste material received at the facility includes paints, resins, hydrocarbons, solvents, batteries, oils and greases, other controlled wastes and minor quantities of putrescible wastes.

Table 5 lists the Prescribed Premises Categories in the Existing Licence.

**Table 5: Prescribed Premises Categories in the Existing Licence**

Classification of Premises	Description	Approved Premises production or design capacity or throughput
Category 61	Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored,	2,000 tonnes per annual period
Category 62	Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or reuse.	1,000 tonnes per annual period

#### 3.1 Noise improvement condition monitoring

Condition 2.2.1 included a requirement for the Licence Holder to undertake noise monitoring of the Premises during normal operating conditions at the Premises boundary. A report was then required to be prepared and submitted to the CEO to assess whether noise emissions from the Premises comply with the assigned level in the Noise Regulations for the range of operations.

The noise monitoring was required to be completed within two months of the licence being granted and the report to the CEO to be provided within one month of the monitoring being completed.

Correspondence from the Licence Holder was received 9 December 2016 requesting clarification on the requirement for this monitoring given that the Premises had not operated outside of the hours of 07:00 to 19:00 hours and as such, was unable to undertake any monitoring during the 'night-time' specified times.

The appropriateness of this improvement condition has been assessed as part of this amendment.

## 4. Overview of Premises

### 4.1 Operational aspects

Packaged wastes are stored in pallet racking in an enclosed warehouse with segregated, banded areas arranged in accordance with the dangerous goods/hazard class of material. There is no bulk storage of wastes on the Premises.

The Premises storage areas are segregated and banded using permanent and portable bunds to separate the following materials:

- Combustible liquids (hydrocarbons);
- Non-hazardous solids and liquids;
- Flammable solids and liquids;
- Corrosive solids and liquids;
- Oxidising solids and liquids;
- Putrescible wastes;
- Environmentally hazardous solids and liquids; and
- Toxic solids and liquids.

**Table 6: Site storage volumes and locations**

Category	Expected Quantity	Container Type	Location	Capacity
Combustible	<5 Tonnes	Package	Package Store Area A	10 Tonnes
Non Dangerous	<10 Tonnes	Package	Package Store Area B	20 Tonnes
Flammable	<5 Tonnes	Package	Package Store Area C	10 Tonnes
Corrosive	<5 Tonnes	Package	Package Store Area D	10 Tonnes
Oxidising	<1 Tonne	Package	Package Store Area E	2 Tonnes
Environmentally Hazardous	<2 Tonnes	Package	Package Store Area F	5 Tonnes
Toxic	<2 Tonnes	Package	Package Store Area G	5 Tonnes

Minor volumes of packaged putrescible material (e.g. canned foods) are stored on the Premises. Packaged putrescible wastes are damaged wastes coming from transport companies and do not meet the definition of municipal waste. Putrescible wastes will be typically dispatched within 24 hours for disposal to an approved landfill facility. Currently up to 5 tonnes of putrescible material per week is processed at the Premises, with the intent to increase this to 15 tonnes per week in the longer term. Other solid wastes accepted include hydrocarbon contaminated solid wastes, such as rags, filters and hydraulic hoses etc.

The Licence Holder has confirmed that the Premises will store no more than 300 tonnes of waste at the Premises at any one time and that any waste stored in outdoor areas will be stored in a bunded area.

The predominant form of handling and processing on the Premises is the consolidation of smaller quantities (<200L) of packaged wastes volumes into larger containers, such as 1,000L containers. Incoming wastes are inspected, assessed and processed according to physical form, hazard (reactivity, flammability, acidity etc.), waste type, contaminants and package quality, size and type. Once packaged wastes have been aggregated into suitable loads (typically 10 to 20 tonnes) they are dispatched to approved re-use, recycling and disposal facilities in Western Australia, Australia and potentially overseas.

The Application states that the hours of operation are between 7am to 5pm Monday to Friday.

## 4.2 Infrastructure

The Premises infrastructure, as it relates to Category 57, 61 and 61A activities, is detailed in Table 7 and with reference to the Site Plan (Figure 1 and attached in the Amended Licence).

**Table 7: Premises infrastructure**

	<b>Infrastructure</b>	<b>Site Plan Reference</b>
1	Packaged waste storage areas: <ul style="list-style-type: none"> <li>• Pallet racking located in an enclosed warehouse with segregated, bunded areas arranged in accordance with the dangerous goods/hazard class of material.</li> <li>• Premises storage areas are segregated and bunded using permanent and portable bunds to separate the following materials:               <ul style="list-style-type: none"> <li>○ Combustible liquids (hydrocarbons);</li> <li>○ Non-hazardous solids and liquids;</li> <li>○ Flammable solids and liquids;</li> <li>○ Corrosive solids and liquids;</li> <li>○ Putrescible wastes;</li> <li>○ Environmentally hazardous solids and liquids; and</li> <li>○ Toxic solids and liquids</li> </ul> </li> </ul>	External Hardstand Storage Area Waste storage area Waste storage and dispatch area
2	Waste loading and unloading areas	Unloading / Loading Area
3	Bunded waste receipt, inspection and storage area	Waste Receiving and Inspection Area
4	Shredder located inside a bunded, concrete tilt up shed	Shredder
	<b>Other activities</b>	
1	Sealed roads	n/a
2	Stormwater control systems and site drainage	n/a
3	Utilities	n/a
4	A security gate and fences	n/a

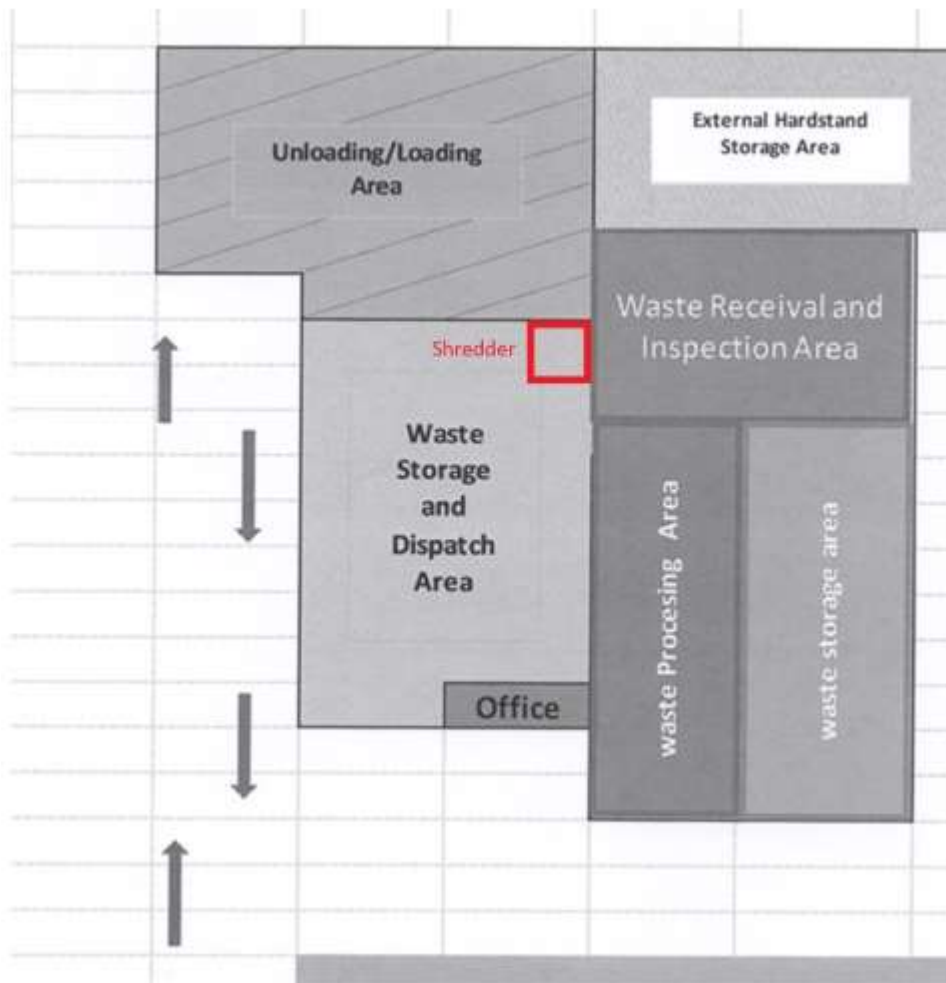


Figure 1. Site Plan

## 5. Review of existing and proposed waste acceptance

The Licence Holder has requested an increase of 3,000 tonne per annum for liquid wastes and a 10,000 tonne per annum increase for the solid waste component. As part of this amendment, the Delegated Officer has reviewed the proposed additional waste type quantities included in the Application and determined that there is inconsistency in the requested throughput increases. Appendix 2 includes a breakdown of the current and proposed waste throughputs and the expected total throughput of solid and liquid wastes.

**The Delegated Officer has reviewed information from the Licence Holder regarding the requested throughput and waste acceptance increases and has determined that based on the total throughput identified in Appendix 2, the Delegated Officer considers that a total throughput of 3,500 tonnes per annum for Category 61 (liquid wastes) and 5,500 tonnes per annum for Category 61A is sufficient to allow for the requested additional waste types.**

## 6. Legislative context

### 6.1.1 Planning approvals

The Premises is located within the City of Swan in the Malaga Industrial Precinct (MIP), an area zoned for General Industry under the Metropolitan Regional Scheme for General Industry. Under the City's Local Planning Scheme No. 17 (amended 16 July 2018), the Premises activities are permitted to be undertaken in this zoning.

The following planning approval conditions relevant to the granting of this licence include (numbering as per DA-933/2015):

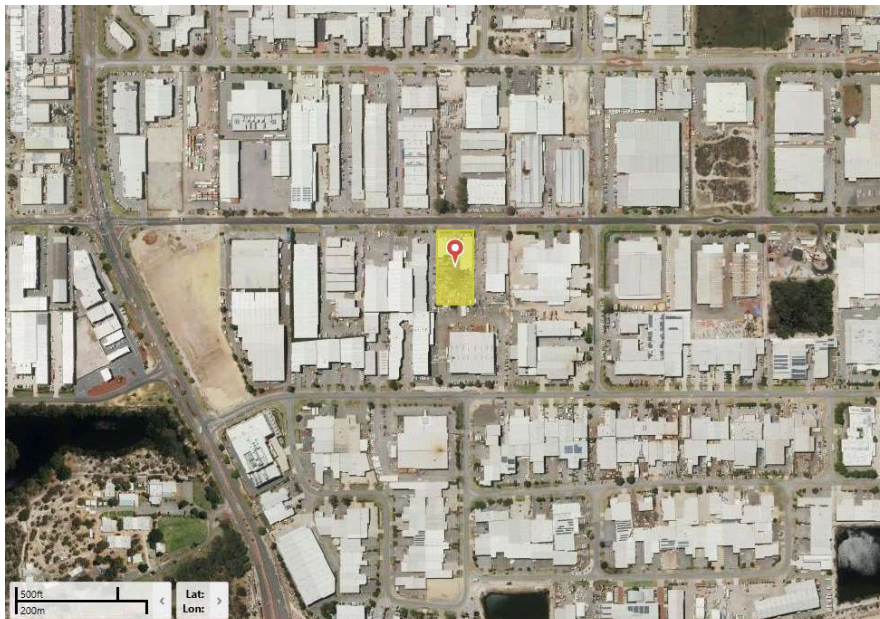
*“3. Washdown bays where petrol, other hydrocarbons or similar matter is likely to be discharged must be constructed in accordance with Water Corporation guideline. External wash down bays greater than 20m<sup>2</sup> are to be roofed. Treated liquid wastes must either be disposed of through the sewer or in accordance with Department of waters Water Quality Protection Note 68 (Mechanical Equipment washdown). No contaminated stormwater is permitted to enter the stormwater drains. All fuels, oils and other liquids should be appropriately stored within bunded and covered area capable of trapping all wastes.*

*4. Odour emissions to be mechanically ventilated and filtered so that neighbouring properties are not affected by such odours.*

*5. Operations from the proposed business are not to impact neighbouring properties via the emission of rubbish, any other odours not related to the handling of liquid waste, noise or dust.”*

The planning approval is not subject to a time limitation.

Figure 2 provides an overview of the Premises' location within the MIP.



**Figure 2. Premises location**

## 6.2 Part V of the EP Act

### 6.2.1 Applicable regulations, standards and guidelines

The overarching legislative framework of this assessment is the EP Act and EP Regulations.

The guidance statements which inform this assessment are:

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Land Use Planning (February 2017)*
- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessments (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

### 6.2.2 Works approval and licence history

Table 8 summarises the works approval and licence history for the Premises.

**Table 8: Works approval and licence history**

Instrument	Issued	Nature and extent of works approval, licence or amendment
W5971/2016/1	04/08/2016	Works Approval for construction of the Premises. A certificate of completion was provided on 20 September 2016.
L8968/2016/1	04/10/2016	New Licence
L8968/2016/1	05/04/2018	Amendment Notice 1 – Licence amendment to extend duration
L8968/2016/1	19/10/2018	Licence amendment to increase throughput and waste acceptance types and incorporate Amendment Notice 1

### 6.2.3 Key and recent licence amendments

#### 5 April 2018

The Licence was amended 5 April 2018 by way of Amendment Notice 1 to extend the expiry date from 5 April 2018 to 5 April 2038. No other changes were made at this time.

## 7. Consultation

The Application was referred to the City of Swan on 27 March 2018. No comments were received in respect of the Application.



## 8. Location and siting

### 8.1 Residential and sensitive Premises

The distances to residential and sensitive receptors are detailed in Table 9.

**Table 9: Receptors and distance from activity boundary**

Sensitive Land Uses	Distance from Prescribed Activity
Residential receptors	750m south-west and 920m north of the Premises boundary
Industrial receptors	General industrial zoned properties are located directly adjacent to the Premises on all sides

### 8.2 Specified ecosystems

Specified ecosystems are areas of high conservation value and special significance that may be impacted as a result of activities at or Emissions and Discharges from the Premises. The distances to specified ecosystems are shown in Table 10. Table 10 also identifies the distances to other relevant ecosystem values which do not fit the definition of a specified ecosystem.

**Table 10: Environmental values**

Specified ecosystems	Distance from the Premises
Surface water bodies	Series of stormwater discharge compensation basins located within a 1km radius of the Premises
Lightning Swamp	Conservation category wetland located 700m south of the Premises
Bushforever Site 385	450m south-west of the Premises boundary
Bushforever Site 307	600m south of the Premises boundary
Biological component	Distance from the Premises
Declared threatened fauna	700m south-west of the Premises boundary

### 8.3 Groundwater and water sources

The distances to groundwater and water sources are shown in Table 11.

**Table 11: Groundwater and water sources**

Groundwater and water sources	Distance from Premises	Environmental value
Public drinking water source areas	Within and surrounding the Premises boundary	The Premises is located within the Priority 3 – Gnangara Underground Water Pollution Control Area
Groundwater	The Perth Groundwater Atlas (PGA) identifies the depth of groundwater at the Premises at a depth of between 4.5m to 5.5m with an aquifer thickness of 28m. The inferred groundwater flow is from north to south	The PGA indicates that the groundwater is marginal (total dissolved solids between 500-1000mg/L)

## 8.4 Soil type

The PGA identifies the surface geology as Bassendean Sand which has a high natural permeability.

The Premises is located within an area of moderate to low risk of Acid Sulfate Soils.

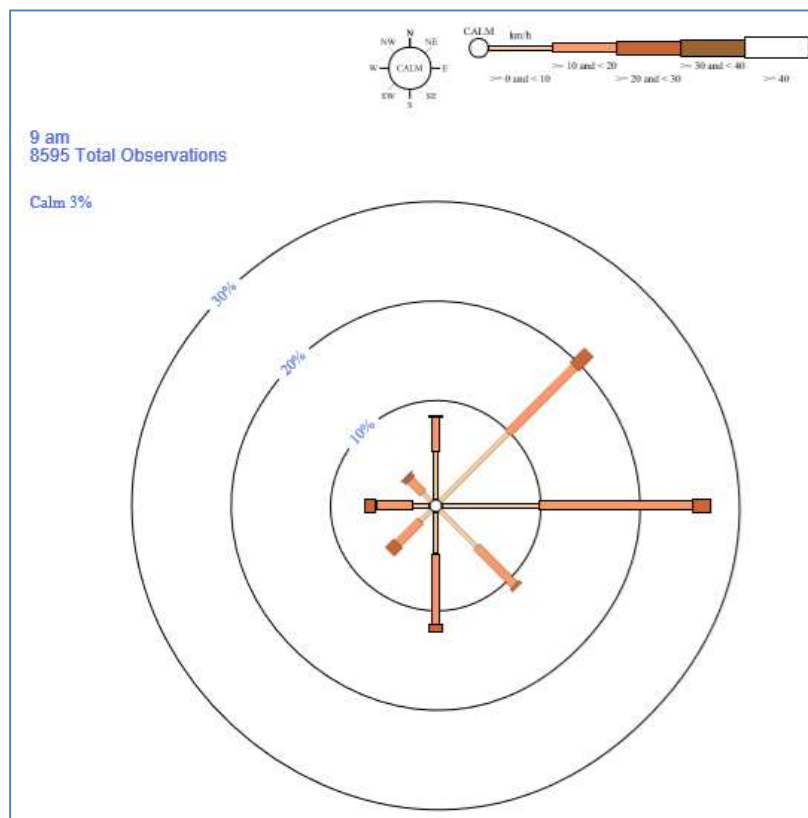
## 8.5 Meteorology

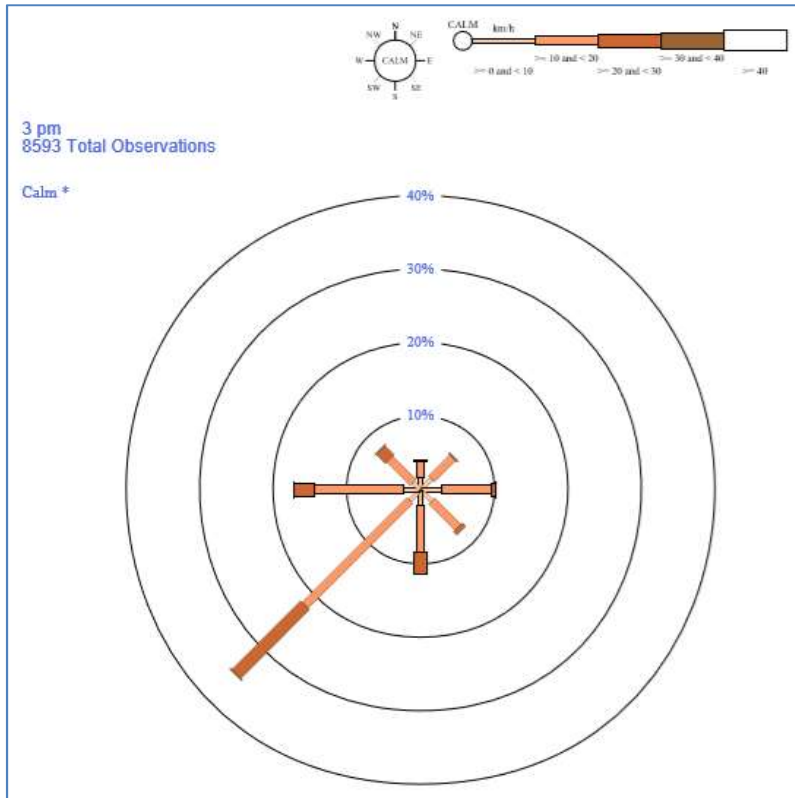
### 8.5.1 Wind direction and strength

The Bureau of Meteorology (BoM) provides the 9am and 3pm wind speed and direction for the Perth Metro WA weather station (station number 009225). The following wind roses (Figure 3) provide the annual wind direction and strength (km/h) for the periods 9am and 3pm between the years 1994 to 2017.

The region has a dominant annual wind direction consisting of easterly and north-easterly winds during morning and south westerly winds in the afternoon. Any air emissions from the Premises will impact industrial receptors in the vicinity of the site and potentially residential areas to the

It is important to note that these wind roses show historical wind speed and wind direction data for the Perth Metro area and should not be used to predict future data.





**Figure 3. Perth Metro (Site No: 009225) 9am and 3pm average wind speed and direction (1994-2017)**

## 9. Risk assessment

### 9.1 Determination of emission, pathway and receptor

In undertaking its risk assessment, DWER will identify all potential emissions pathways and potential receptors to establish whether there is a Risk Event which requires detailed risk assessment.

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission. Where there is no actual or likely pathway and/or no receptor, the emission will be screened out and will not be considered as a Risk Event. In addition, where an emission has an actual or likely pathway and a receptor which may be adversely impacted, but that emission is regulated through other mechanisms such as Part IV of the EP Act, that emission will not be risk assessed further and will be screened out through Table 12.

The identification of the sources, pathways and receptors to determine Risk Events are set out in Table 12 below.

**Table 12. Identification of emissions, pathway and receptors**

Risk Events					Continue to detailed risk assessment	Reasoning	
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts			
<b>Cat 61 and 61A</b> Liquid waste facility and solid waste depot	Acceptance, handling and storage of wastes prior to transport offsite.	Dust from vehicle movements and material stockpiles	Residences located approximately 750m from the Premises and industrial receptors located directly adjacent as well as directly across the road from the Premises.	Air / wind dispersion	Health and amenity impacts	No	All trafficable areas of the Premises are sealed (asphalted). The Premises will only be accepting packaged wastes for storage prior to transport offsite.  No additional regulatory controls are required to mitigate the risk of dust emissions.
		Noise associated with acceptance and handling of wastes onsite.		Air	Amenity impacts	Yes	See section 9.7

Risk Events					Continue to detailed risk assessment	Reasoning	
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts			
		Odour from the acceptance, handling and storage of potentially odorous wastes.		Air/ wind dispersion	Amenity impacts	Yes	See section 9.8
		Potential spills and/or leakage of waste liquids during storage and handling.	Soils and P3 PDWSA groundwater located approximately 4.5mbgl.  Bushforever sites located 450m south-west and 600m south of the Premises boundary.	Direct discharge to land  Infiltration to groundwater  Transport through groundwater	Potential impacts to underlying groundwater from seepage  Adverse impacts to health and survival of vegetation dependent upon groundwater	No	Liquid wastes will be stored in the same manner as existing liquid wastes and the proposed licence changes do not increase the risk to the environment. Existing Licence conditions 1.2.1 through 1.2.4 apply.
			Lightning Swamp (conservation category) 700m south and series of stormwater discharge compensation basins within 1km of the Premises.	Overland flow	Contamination of surrounding land and surface water drainage systems		
<b>Cat 61A</b> Beverage shredding	Shredding of beverage containers	Noise associated with operation of the shredder.	Residences located approximately 750m from the Premises and industrial receptors located directly adjacent as well as directly across the road from the Premises.	Air	Amenity impacts	Yes	See section 9.7
		Dust from the shredding of beverage containers		Air / wind dispersion	Health and amenity impacts	Yes	See section 9.9

Risk Events					Continue to detailed risk assessment	Reasoning
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
	Leachate from beverage containers	Soils and P3 PDWSA groundwater located approximately 4.5mbgl. Bushforever sites located 450m south-west and 600m south of the Premises boundary.	Direct discharge to land Infiltration to groundwater Transport through groundwater	Contamination of surrounding land and surface water drainage systems Potential impacts to underlying groundwater from seepage Adverse impacts to health and survival vegetation dependent upon groundwater	Yes	See section 9.10
		Lightning Swamp (conservation category) 700m south and series of stormwater discharge compensation basins within 1km of the Premises.	Overland flow	Contamination of surface water	No	Given the distances of the surface water bodies from the Premises, it is unlikely that a pathway for overland flow exists.

Risk Events					Continue to detailed risk assessment	Reasoning	
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts			
<p><b>Stormwater</b></p>	<p>Stormwater contaminated after coming into contact with waste or contaminated wastewater on-site.</p>	<p>Contaminated stormwater</p>	<p>Soils and P3 PDWSA groundwater located approximately 4.5mbgl.</p> <p>Lightning Swamp (conservation category) 700m south and series of stormwater discharge compensation basins within 1km of the Premises.</p> <p>Bushforever sites located 450m southwest and 600m south of the Premises boundary.</p>	<p>Direct discharge to land</p> <p>Overland flow</p> <p>Infiltration to groundwater</p>	<p>Contamination of surrounding land and surface water drainage systems</p> <p>Potential impacts to underlying groundwater from seepage</p> <p>Adverse impacts to health and survival of vegetation dependent upon groundwater</p>	<p>No</p>	<p>Contaminated stormwater will be managed in the same manner as existing contaminated stormwater onsite and the proposed licence changes do not increase the risk to the environment. Existing Licence condition 1.2.7 applies.</p>

## 9.2 Consequence and likelihood of risk events

A risk rating will be determined for risk events in accordance with the risk rating matrix set out in Table 13 below.

**Table 13: Risk rating matrix**

Likelihood	Consequence				
	Slight	Minor	Moderate	Major	Severe
Almost certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Medium	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High

DWER will undertake an assessment of the consequence and likelihood of the Risk Event in accordance with Table 14 below.

**Table 14: Risk criteria table**

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the Risk Event occurring.		The following criteria has been used to determine the consequences of a Risk Event occurring:		
			Environment	Public health* and amenity (such as air and water quality, noise, and odour)
Almost Certain	The risk event is expected to occur in most circumstances	Severe	<ul style="list-style-type: none"> <li>onsite impacts: catastrophic</li> <li>offsite impacts local scale: high level or above</li> <li>offsite impacts wider scale: mid-level or above</li> <li>Mid to long-term or permanent impact to an area of high conservation value or special significance<sup>^</sup></li> <li>Specific Consequence Criteria (for environment) are significantly exceeded</li> </ul>	<ul style="list-style-type: none"> <li>Loss of life</li> <li>Adverse health effects: high level or ongoing medical treatment</li> <li>Specific Consequence Criteria (for public health) are significantly exceeded</li> <li>Local scale impacts: permanent loss of amenity</li> </ul>
Likely	The risk event will probably occur in most circumstances	Major	<ul style="list-style-type: none"> <li>onsite impacts: high level</li> <li>offsite impacts local scale: mid-level</li> <li>offsite impacts wider scale: low level</li> <li>Short-term impact to an area of high conservation value or special significance<sup>^</sup></li> <li>Specific Consequence Criteria (for environment) are exceeded</li> </ul>	<ul style="list-style-type: none"> <li>Adverse health effects: mid-level or frequent medical treatment</li> <li>Specific Consequence Criteria (for public health) are exceeded</li> <li>Local scale impacts: high level impact to amenity</li> </ul>
Possible	The risk event could occur at some time	Moderate	<ul style="list-style-type: none"> <li>onsite impacts: mid-level</li> <li>offsite impacts local scale: low level</li> <li>offsite impacts wider scale: minimal</li> <li>Specific Consequence Criteria (for environment) are at risk of not being met</li> </ul>	<ul style="list-style-type: none"> <li>Adverse health effects: low level or occasional medical treatment</li> <li>Specific Consequence Criteria (for public health) are at risk of not being met</li> <li>Local scale impacts: mid-level impact to amenity</li> </ul>
Unlikely	The risk event will probably not occur in most circumstances	Minor	<ul style="list-style-type: none"> <li>onsite impacts: low level</li> <li>offsite impacts local scale: minimal</li> <li>offsite impacts wider scale: not detectable</li> <li>Specific Consequence Criteria (for environment) likely to be met</li> </ul>	<ul style="list-style-type: none"> <li>Specific Consequence Criteria (for public health) are likely to be met</li> <li>Local scale impacts: low level impact to amenity</li> </ul>
Rare	The risk event may only occur in exceptional circumstances	Slight	<ul style="list-style-type: none"> <li>onsite impact: minimal</li> <li>Specific Consequence Criteria (for environment) met</li> </ul>	<ul style="list-style-type: none"> <li>Local scale: minimal to amenity</li> <li>Specific Consequence Criteria (for public health) met</li> </ul>

<sup>^</sup> Determination of areas of high conservation value or special significance should be informed by the *Guidance Statement: Environmental Siting*.

\* In applying public health criteria, DWER may have regard to the Department of Health's *Health Risk Assessment (Scoping) Guidelines*.

"onsite" means within the Prescribed Premises boundary.



### 9.3 Acceptability and treatment of Risk Event

DWER will determine the acceptability and treatment of Risk Events in accordance with the Risk treatment Table 15 below:

**Table 15: Risk treatment table**

Rating of Risk Event	Acceptability	Treatment
<b>Extreme</b>	Unacceptable.	Risk Event will not be tolerated. DWER may refuse application.
<b>High</b>	May be acceptable. Subject to multiple regulatory controls.	Risk Event may be tolerated and may be subject to multiple regulatory controls. This may include both outcome-based and management conditions.
<b>Medium</b>	Acceptable, generally subject to regulatory controls.	Risk Event is tolerable and is likely to be subject to some regulatory controls. A preference for outcome-based conditions where practical and appropriate will be applied.
<b>Low</b>	Acceptable, generally not controlled.	Risk Event is acceptable and will generally not be subject to regulatory controls.

### 9.4 Risk Assessment – Noise Emissions

#### 9.4.1 Description of noise emissions

Noise emissions from the acceptance and handling of materials, vehicle movements onsite and operation of the shredder at the Premises may travel through air causing amenity impacts to people outside of the Premises.

#### 9.4.2 Identification and general characterisation of emission

The Application states that the hours of operation are between 07:00 to 17:00 hours Monday to Friday, however the original Application for Works Approval and Licence indicated potential for the Premises to operate outside of these hours.

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

Noise emissions have the potential to reduce public wellbeing, amenity and comfort. The closest noise sensitive receptors to the Premises include a residential area located approximately 750m south-west with commercial and industrial neighbours adjacent to the Premises.

#### 9.4.4 Criteria for assessment

The current applicable criteria for noise emissions are detailed in the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations).

The Noise Regulations assign stricter assigned levels to highly sensitive areas outside the hours of 07:00 to 19:00 hours Monday to Saturday.

#### 9.4.5 Licence Holder controls

The Application states that the Premises will continue to operate between the hours of 07:00 to 17:00 hours which are described as day-time hours as specified in the Noise Regulations.

#### 9.4.6 Key findings

**The Delegated Officer has reviewed the information regarding noise emissions from the Premises and has found:**

1. Noise emissions during standard hours of operation can be adequately managed through the Noise Regulations.
2. Operations outside of these standard hours of operation may have the potential to exceed the assigned levels identified in the Noise Regulations, potentially impacting amenity.

#### 9.4.7 Consequence

If noise emissions occur during day-time operations, then the Delegated Officer has determined that the prescribed levels of the Noise Regulations are likely to be met. Therefore, the Delegated Officer considers the consequence of noise emissions during standard day-time operations to be **minor**.

#### 9.4.8 Likelihood of Risk Event

The Delegated Officer has determined that the likelihood of noise emissions impacting amenity during standard day-time operations will probably not occur in most circumstances. Therefore, the Delegated Officer considers the likelihood of noise emissions impacting amenity during standard day-time operations to be **unlikely**.

#### 9.4.9 Overall rating of noise emissions

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix (Table 13) and determined that the overall rating for the risk of noise emissions during normal day-time operations is **medium**.

### 9.5 Risk Assessment – Odour

#### 9.5.1 Description of odour emissions

Odour emissions from the acceptance, storage and handling of waste materials at the Premises may travel through air causing amenity impacts to people outside of the Premises.

#### 9.5.2 Identification and general characterisation of emission

Odour emissions from operations at the Premises may occur during storage and handling of putrescible materials, waste oils and other chemicals including during transfer of wastes to larger containers for consolidation of waste types.

The Application relates to an increase in throughput of waste materials which has the potential to increase odour emissions from the Premises.

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

Amenity impacts to nearby receptors including industrial premises immediately surrounding the Premises. The closest odour sensitive receptors to the Premises include a residential area located approximately 750m south-west with commercial and industrial neighbours adjacent to

the Premises.

#### 9.5.4 Criteria for assessment

Impacts can be assessed against the general provisions of the EP Act, specifically whether odour unreasonably interferes with the health, welfare, convenience, or comfort of any person.

#### 9.5.5 Licence Holder controls

This assessment has reviewed the controls set out in Table 16 below.

**Table 16: Licence Holder's controls for odour**

Aspect	Description
General housekeeping	General housekeeping practices will be implemented to prevent the accumulation of waste materials that may generate odour.
Waste acceptance	Waste materials to be accepted to be risk assessed prior to acceptance to identify odour or other risks.  Existing Licence conditions 1.2.1, 1.2.3 and 2.3.4 (Table 1.2.1) limit the types and quantities of waste that can be accepted at the Premises. Condition 1.2.2 also requires non-conforming wastes to be removed offsite.
Waste storage	All wastes to be contained in sealed tanks, containers and drums to minimise escape of odours. Liquid wastes will be stored in sealed containers, putrescible and hydrocarbon contaminated wastes will be stored in front lift bins with lids on them.  Existing Licence condition 1.2.4 (Table 1.2.1) limits putrescible wastes to being stored on the Premises for less than 24 hours and to be stored in sealed containers to reduce odour emissions, consistent with previous commitments by the Licence Holder.  Existing Licence condition 1.2.5 restricts the Premises to no more than 300 tonnes of waste on the Premises at any one time.
Planning approval controls	In addition to the above controls, the planning approval for the Premises requires that: <ul style="list-style-type: none"><li>• Odour emissions to be mechanically ventilated and filtered so that neighbouring properties are not affected by such odours.</li><li>• Operations from the proposed business are not to impact neighbouring properties via the emission of rubbish and any other odours not related to the handling of liquid waste, noise or dust.</li></ul>

#### 9.5.6 Key findings

**The Delegated Officer has reviewed the information regarding odour emissions from the Premises and has found that no odour complaints have been received in respect of the Premises, suggesting that existing licence controls are suitable for the continued management of odorous or potentially odorous wastes at the Premises.**

#### 9.5.7 Consequence

If odour emissions from the Premises occur, then the Delegated Officer has determined that the impact of odour emissions will be low level impacts to amenity on a local scale. Therefore, the Delegated Officer considers the consequence of odour emissions to be **minor**.

### 9.5.8 Likelihood of Risk Event

The Delegated Officer has determined that based on consistent implementation of the controls currently in place by the Licence Holder, the likelihood of odour emissions impacting amenity will probably not occur in most circumstances. Therefore, the Delegated Officer considers the likelihood of odour emissions impacting amenity to be **unlikely**.

### 9.5.9 Overall rating of odour emissions

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix (Table 13) and determined that the overall rating for the risk of odour emissions from the Premises is **medium**.

## 9.6 Risk Assessment – Dust

### 9.6.1 Description of dust emissions

Dust from the shredding of beverage containers being released into air causing health and amenity impact on people outside of the Premises.

### 9.6.2 Identification and general characterisation of emission

Dust may be generated from the shredding of beverage containers onsite.

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

Dust emissions have the potential to impact public health when inhaled; affecting both the respiratory and cardiovascular systems. Amenity may also be impacted by visible dust plumes and deposition of material on a variety of surfaces such as vehicles, dwellings and clothing.

The closest dust sensitive receptors to the Premises include a residential area located approximately 750m south-west with commercial and industrial neighbours adjacent to the Premises.

### 9.6.4 Criteria for assessment

Impacts can be assessed against the general provisions of the EP Act, specifically whether fugitive dust unreasonably interferes with the health, welfare, convenience, or comfort of any person.

### 9.6.5 Licence Holder controls

The Application states that the products that will be shredded are liquid so there is no dust generated. The shredder is located inside a bunded, concrete tilt up shed.

### 9.6.6 Consequence

Taking into consideration the types of material to be shredded, the Delegated Officer has determined that if dust emissions occur, they will be low level impacts to amenity on a local scale. Therefore, the Delegated Officer considers the consequence of dust emissions from the shredding of beverage containers to be **minor**.

### 9.6.7 Likelihood of Risk Event

The Delegated Officer has determined that given the location of the shredder in a shed, the likelihood of dust emissions occurring during the shredding of beverage containers could occur at some time. Therefore, the Delegated Officer considers the likelihood of dust emissions occurring from the shredding of beverage containers to be **unlikely**.

### 9.6.8 Overall rating of dust emissions

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix (Table 13) and determined that the overall rating for the risk of dust emissions from the shredding of beverage containers is **medium**.

## 9.7 Risk Assessment – Leachate

### 9.7.1 Description of leachate emissions

Leachate from liquids drained during the shredding of beverage containers at the Premises may seep through soil into surrounding land and groundwater or enter drainage systems that could contaminate land at the discharge point.

### 9.7.2 Identification and general characterisation of emission

The Application identifies that the majority of the product destruction undertaken at the Premises is for beverage products in plastic and aluminium can packaging where the weight of liquid waste/product will be greater than 95% of the weight of the product.

The shredder is located inside a bunded, concrete tilt up shed. Beverages are shredded into an open top IBC, the liquid contents drained and the drained packaging is rotated into a normal general waste bin. The drained liquid material will be stored in IBC's until collection using a vacuum tanker and then transported offsite to a composting facility.

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

Soils on the Premises or on nearby properties may become contaminated through the seepage of leachate through the soil profile. Groundwater may become contaminated through seepage.

### 9.7.4 Criteria for assessment

*The Australian Drinking Water Guidelines* (NHMRC, 2011 - Updated October 2017) and the Department of Health *Guidelines for the Non-potable Uses of Recycled Water in Western Australia* (DoH, 2011) are considered the appropriate criteria for assessing impacts to groundwater.

### 9.7.5 Licence Holder controls

The Application states that the drained liquid material will be stored in IBCs until collection/transport offsite and that the beverage destruction will occur inside a bunded, concrete shed.

### 9.7.6 Consequence

If leachate emissions occur from the shredding of beverages on the Premises, then the Delegated Officer has determined that the impact of leachate on soil and groundwater will be minimal off-site impacts on a local scale. Therefore, the Delegated Officer considers the consequence of leachate emissions to be **minor**.

### 9.7.7 Likelihood of Risk Event

The Delegated Officer has determined that leachate emissions will probably not occur in most circumstances. Therefore, the Delegated Officer considers the likelihood of leachate emissions to be **unlikely**.

### 9.7.8 Overall rating of leachate emissions

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix (Table 13) and determined that the overall rating for the risk of leachate emissions is **medium**.

## 10. Regulatory controls

A summary of regulatory controls determined to be appropriate for the Risk Event is set out in below. The risks are set out in the assessment in section 9. DWER will determine controls having regard to the adequacy of controls proposed by the Licence Holder. The conditions of the Licence will be set to give effect to the determined regulatory controls.

### 10.1 Amended Licence controls

#### 10.1.1 Waste acceptance and processing

Table 1.2.1 of conditions 1.2.1 through 1.2.4 will be amended to reflect the additional waste types and throughputs requested in the Application except for the requested additional throughput for Controlled Waste Type D220 (lead and lead compounds).

Specific processing and storage requirements will also be included for the shredding of beverage containers and the management of PFAS contaminated transport containers as detailed below.

**Grounds:** These controls are derived from the Application and are considered appropriate to manage potential noise, dust, odour and leachate emissions from the wastes.

The Delegated Officer has determined not to amend the Licence to authorise the additional throughput of lead and lead compounds on the basis that DWER does not support the Licence Holder's proposed immobilisation/treatment process as advised in correspondence to the Licence Holder dated 15 June 2018. Additionally the Existing Licence does not currently authorise the treatment of wastes.

The Licence Holder may apply to increase the throughput of lead and lead compounds at a later date when the acceptability of a treatment process has been confirmed.

#### Beverage containers

Conditions will be included in the Licence to ensure that the shredding of beverage containers is only to be undertaken within a bunded, concrete tilt up shed to prevent dust emissions and run-off.

**Grounds:** This control is derived from the Application and is considered appropriate to manage potential dust, noise and leachate emissions from the shredding of beverage containers at the Premises.

#### PFAS contaminated materials

A condition will be included in the Licence to ensure that all containers utilised for the movement of PFAS-contaminated materials must be managed as PFAS contaminated materials until they have been appropriately cleaned.

**Grounds:** This control is consistent with the PFAS National Environmental Management Plan (January 2018) and is appropriate to eliminate contamination of subsequent loads.

#### 10.1.2 Noise management

Condition 2.2.1 relating to monitoring of noise emissions will be removed and a condition restricting the hours of operation of the Premises to 07:00 to 17:00 Monday to Friday will be included in the Licence.

**Grounds:** CEO derived requirement consistent with the Licence Holder’s current general hours of operation. The original Licence application indicated potential for operations to occur outside these hours. Should the Licence Holder intend to change the hours of operation, an application for amendment will be required to be submitted and noise monitoring may be required to confirm compliance with the Noise Regulations.

## 11. Determination of Amended Licence conditions

The conditions in the Amended Licence in Attachment 1 have been determined in accordance with the *Guidance Statement: Setting Conditions*.

Table 17 provides a summary of the amendments to be applied to this licence.

**Table 17: Summary of conditions to be applied/amended**

Condition Ref	Grounds
Waste acceptance, processing and storage 1.2.1 to 1.2.4 (Table 1.2.1)	These conditions are valid, risk-based and contain appropriate controls.
Hours of operation 1.2.8	This condition replaces 2.2.1 and is valid, risk-based and contains appropriate controls.

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the licence under the EP Act.

## 12. Licence Holder’s comments

The Licence Holder was provided with the draft Decision Report and draft Amended Licence on 2 August 2018. The Licence Holder provided comments which are summarised along with DWER’s response, in Appendix 3.

A further revised draft Decision Report and draft Amended Licence was provided to the Licence Holder on 12 October 2018. The Licence Holder provided final comment on 18 October 2018 advising that they were happy with the amended licence except for the change to the M160 part of the Licence which now has the PFAS type surfactants now separated into the M270 category.

As the original intent of the addition of M160 was to allow the acceptance of PFAS type surfactants at the time of the Application, the Licence and Decision Report have been amended to include the acceptance of 50 tonnes per annum of waste type M270.

## 13. Conclusion

This assessment of the risks of activities on the Premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this Decision Report (summarised in Appendix 1).

Based on this assessment, it has been determined that the Amended Licence will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

A/Manager Waste Industries  
Regulatory Services (Environment)  
Delegated Officer  
under section 20 of the *Environmental Protection Act 1986*

## Appendix 1: Key documents

	Document title	Availability
1.	Licence L8968/2016/1 – Cleartech Waste Management	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
2.	Application Form – Licence Amendment, submitted 18 January 2018	DWER records (A1599971)
3.	Additional information provided by Cleartech Waste Management Pty Ltd by email 9 March 2018	DWER records (A1630913)
4.	Waste Authority Guidance Note 6 – Converting volumes to tonnes	accessed at <a href="http://www.wasteauthority.wa.gov.au">www.wasteauthority.wa.gov.au</a>
5.	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
6.	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	
7.	DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	
8.	DER, February 2017. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	
9.	HEPA, January 2018. PFAS National Environmental Management Plan.	accessed at: <a href="http://www.pfas.gov.au">www.pfas.gov.au</a>



## Appendix 2: Waste Acceptance and Throughput

Waste Acceptance and Throughput					
Waste type	Waste Code	Existing Quantity Limit	Proposed Quantity Limit	Solid	Liquid
Putrescible	-	260 tonnes per annual period	1,000 tonnes per annual period	•	
Hydrocarbon contaminated solid waste (oily rags, hydraulic hoses etc.)	-	260 tonnes per annual period	1,000 tonnes per annual period	•	
Plating and Heat Treatment					
Inorganic cyanide	A130	70 tonnes per annual period	70 tonnes per annual period	•	•
Acids					
Acidic solutions or acids in solid form	B100	150 tonnes per annual period	150 tonnes per annual period	•	•
Alkalis					
Basic (alkaline) solution or bases (alkalis) in solid form	C100	150 tonnes per annual period	150 tonnes per annual period	•	•
Inorganic Chemicals					
Metal carbonyls	D100	Combined premises total of 150 tonnes per annual period	Combined premises total of 150 tonnes per annual period	•	•
Inorganic fluorine compounds (excluding calcium fluoride)	D110				
Mercury and mercury compounds	D120				
Arsenic and arsenic compounds	D130				
Chromium compounds	D140				
Tannery waste containing chromium	D141				

Cadmium and cadmium compounds	D150				
Used nickel cadmium batteries	D151				
Beryllium and beryllium compounds	D160				
Antimony and antimony compounds	D170				
Thallium and thallium compounds	D180				
Copper compounds	D190				
Cobalt compounds	D200				
Nickel compounds	D210				
Used nickel metal hydride batteries	D211				
Lead and lead compounds <sup>1</sup>	D220				
Used lead acid batteries	D221				
Zinc compounds	D230				
Selenium and selenium compounds	D240				
Tellurium and tellurium compounds	D250				
Vanadium compounds	D270				
Barium and barium compounds	D290				
Non-toxic salts	D300				
Boron compounds	D310				
Inorganic sulfides	D330				
Perchlorates	D340				
Chlorates	D350				
Phosphorus compounds excluding mineral phosphates	D360				

Reactive Chemicals					
Waste containing peroxides excluding hydrogen peroxide	E100	Combined premises total of 70 tonnes per annual period	Combined premises total of 70 tonnes per annual period	•	•
Waste of an explosive nature not subject to other legislation	E120				
Highly reactive chemicals not otherwise specified	E130				
Paints, Resins, Inks and Organic Sludge					
Aqueous-based wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers and varnish	F100	Combined premises total of 150 tonnes per annual period	Combined premises total of 150 tonnes per annual period	•	
Aqueous-based wastes from the production, formulation and use of resins, latex, plasticisers, glues and adhesives	F110				
Solvent based-wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers and varnish	F120				
Solvent based wastes from the production, formulation and use of resins, latex, plasticisers, glues and adhesives	F130				
Organic Solvents					
Ethers & highly flammable hydrocarbons	G100	Combined premises total of 150 tonnes per annual period	Combined premises total of 150 tonnes per annual period	•	
Non-halogenated organic solvents	G110				
Dry-cleaning wastes containing perchloroethylene	G130				
Halogenated organic Solvents not otherwise specified	G150				

Waste from production, use and formulation of organic solvents not otherwise specified	G160				
<b>Pesticides</b>					
Waste from the production, formulation or use of biocides and phytopharmaceuticals	H100	Combined premises total of 150 tonnes per annual period	Combined premises total of 150 tonnes per annual period		•
Organic phosphorous compounds	H110				
Organochlorine pesticides	H130				
Waste wood preserving chemicals	H170				
<b>Oils</b>					
Waste mineral oils unfit for their intended purpose	J100	Combined premises total of 150 tonnes per annual period	Combined Premises total of 150 tonnes per annual period		•
Waste oil and water mixtures or emulsions, and hydrocarbon and water mixtures or emulsions	J120				
Oil interceptor wastes	J130				
Waste tarry residues arising from refining, distillation or pyrolytic treatment	J160				
Used oil filters	J170				
Oil sludge	J180				
<b>Putrescible and Organic Wastes</b>					
Waste from grease traps	K110	0 tonnes per annum	10 tonnes per annum	•	•
Food and beverage processing wastes	K200	0 tonnes per annum	700 tonnes per annum		
<b>Industrial Wash Water</b>					
Car and truck wash waters	L100	Combined Premises total of 150 tonnes per annum of all liquid wastes accepted	Combined Premises total of 150 tonnes per annum of all liquid wastes accepted		•
Industrial wash waters contaminated with a controlled waste	L150				

Organic Chemicals					
Waste substances and articles containing polychlorinated biphenyls (PCBs)	M100	0 tonnes per annum	50 tonnes per annum	•	•
Waste substances and articles containing polybrominated biphenyls (PBB) polychlorinated naphthalenes (PCN), and/or polychlorinated terphenyls (PCT)	M105	0 tonnes per annum	50 tonnes per annum	•	•
Phenols, phenol compounds including halogenated phenols	M150	0 tonnes per annum	50 tonnes per annum	•	•
Organohalogen compounds not elsewhere listed	M160	0 tonnes per annum	500 tonnes per annum	•	•
Polychlorinated dibenzofuran (any congener)	M170	0 tonnes per annum	50 tonnes per annum	•	•
Polychlorinated dibenzo p-dioxin (any congener)	M180	0 tonnes per annum	50 tonnes per annum	•	•
Highly odorous organic chemicals including mercaptans and acrylates.	M260	0 tonnes per annum	50 tonnes per annum	•	•
Per- and poly- fluoroalkyl substances (PFAS) contaminated materials, including waste PFAS containing products and contaminated containers	M270	50 tonnes per annum	50 tonnes per annum	•	•
Non-halogenated organic chemicals	M130	Combined Premises total of 150 tonnes per annum of all liquid wastes accepted	Combined Premises total of 150 tonnes per annum of all liquid wastes accepted	•	•
Cyanides (organic)/nitriles	M210				
Isocyanate compounds	M220				
Surfactants and detergents	M250				

<b>Soils and Sludge</b>					
Containers or drums contaminated with residues of a controlled waste	N100	Combined Premises total of 150 tonnes per annum	Combined Premises total of 150 tonnes per annum	•	
Encapsulated, chemically fixed, solidified or polymerised controlled wastes	N160				
Filter cake containing a controlled waste	N190	0 tonnes per annum	250 tonnes per annum	•	
Industrial waste treatment plant residues	N205	0 tonnes per annum	250 tonnes per annum	•	•
<b>Clinical and Pharmaceutical</b>					
Waste pharmaceuticals, drugs and medicines	R120	Combined Premises total of 100 tonnes per annum	Combined Premises total of 100 tonnes per annum	•	•
Cytotoxic waste	R130				
Waste from production or preparation of pharmaceutical products	R140				
<b>Miscellaneous</b>					
Waste chemical substances arising from research and development or teaching activities	T100	Combined Premises total of 70 tonnes per annum	Combined Premises total of 70 tonnes per annum	•	•
Waste from production or formulation of photographic chemicals or processing materials.	T120	0 tonnes per annum	10 tonnes per annum	•	•
<b>Totals (current):</b>		<b>2,330 tonnes per annum</b>	<b>-</b>	<b>1,580 tonnes per annum</b>	<b>1,660 tonnes per annum</b>
<b>Totals (proposed):</b>		<b>-</b>	<b>5,880 tonnes per annum</b>	<b>5,130 tonnes per annum</b>	<b>3,480 tonnes per annum</b>

<sup>1</sup>Note: As detailed in section 2.1.1, the proposed increase for Category D220 has not been considered at this time.

## Appendix 3: Summary of Licence Holder's comments on risk assessment and draft conditions

Condition/ Section	Summary of Licence Holder comment	DWER response
<b>Licence</b>		
Page 1 – Schedule 1	The Licence Holder wishes to remove used tyre storage from the Application.	Noted. The assessment has been revised to remove the acceptance and storage of tyres at the Premises.
Page 8 – Table 3 – 61A	Category 61A proposed throughput should be 10,000 tonnes, not the 7,500 tonnes originally proposed.	Noted. Insufficient information has been provided by the Licence Holder to identify the need for 10,000 tonnes. The Delegated Officer has revised the throughput to reflect the solid and liquid wastes throughputs determined in Appendix 2 following changes to the acceptance of some waste categories.
Page 20 – K200	This should be currently 300 tonnes per annum and going to a projected 700 tonnes per annum by the 2019-2020 period.	Noted. The assessment has been revised to take into consideration a throughput of 700 tonnes per annum.
<b>Decision Report</b>		
Page 7, Table 3 tyres	The Licence Holder wishes to remove this category from the Application. Tyres will not be received at the Premises, they will be diverted directly to the tyre disposal facility.	Noted. The assessment has been revised to remove the acceptance and storage of tyres at the Premises.
Page 8, Table 3 – 61A	The proposed throughput should be 10,000 tones, not the 7,500 tonnes originally proposed.	Noted. As above, insufficient information has been provided by the Licence Holder to identify the need for a throughput of 10,000 tonnes. The Delegated Officer has revised the throughput to reflect

		the solid and liquid waste throughputs determined in Appendix 2.
Page 13	The Licence Holder advised they are currently processing approximately 5 tonnes of putrescible material per week and would like to apply for a projected 15 tonnes per week for the longer term, and have a projected throughput of 10 tonnes for the 2019-2020 period.	Noted. The assessment has been revised to reflect the increased weekly throughput of putrescible material.
Page 14 – Table 6 – shredder location	The Licence Holder provided a revised site plan including the location of the shredder. This shows that the shredder is currently located inside a bunded, concrete tilt up shed (inside the building of Unit 3, 390 Victoria Road).	The site plan has been replaced with the revised site plan.
Page 28 and 29 – 9.4.5 and 9.5.4	The Licence Holder wishes to remove the waste tyres category from the Application.	Noted, as above, the assessment has been revised to remove the acceptance and storage of tyres.
Page 31 – Asbestos	This material will be packaged only and will meet Environmental Protection (Controlled Waste) Regulations 2004. These will typically be packaged in 2x200µm polyethylene bags i.e. double bagged.	Noted. The acceptance of asbestos has been removed from this assessment as per a further comment from the Licence Holder below.
Page 32 – 9.7.2	Our typical hours of operation will be between 07:00 to 17:00 Monday to Friday	Noted and amended.
Page 34 – Table 15 – Waste Storage	The second line in the description states that ‘The Applicant states that no more than 10 tonnes of waste will be stored at any one time at the Premises (either inside or outside the facility).’ The original works approval application states that no more than 30 tonnes of waste in these categories will be stored at any one time, with a design capacity of 62 tonnes:	Noted, the assessment has been revised to reflect existing licence condition 1.2.5 which limits the waste storage onsite to no more than a total of 300 tonnes of waste on the Premises at any one time.



		<b>Table 5 - Site Storage Volumes and Locations</b>				
		Category	Expected Quantity	Container Type	Location	Capacity
		Combustible	<5 Tonnes	Package	Package Store Area A	10 Tonnes
		Non Dangerous	<10 Tonnes	Package	Package Store Area B	20 Tonnes
		Flammable	<5 Tonnes	Package	Package Store Area C	10 Tonnes
		Corrosive	<5 Tonnes	Package	Package Store Area D	10 Tonnes
		Oxidising	<1 Tonne	Package	Package Store Area E	2 Tonnes
		Environmentally Hazardous	<2 Tonnes	Package	Package Store Area F	5 Tonnes
		Toxic	<2 Tonnes	Package	Package Store Area G	5 Tonnes
		<p>Assuming we are granted permission for the disposal proposal for the treatment of the lead contaminated fire-assay waste, we would like to store up to 20 tonnes of this waste at any one time. Would this be more logical to change at this stage?</p>			<p>Noted. As it has not been appropriately demonstrated at this time that the Premises has the capability to treat this waste type. A separate licence amendment will be required to allow for the acceptance of the additional material.</p>	
Page 38 – Licence Holder to confirm location for asbestos waste storage	<p>The Licence Holder advised that they will likely be consolidating this type of waste at their second transfer station which is currently at the works approval application stage (CTS2, 40 Mulgul Road, Malaga). Asbestos can be removed from this licence amendment if this makes it simpler.</p>			<p>Noted. The acceptance of asbestos and ceramic based fibres with similar properties to asbestos has been removed from the assessment and amended licence.</p>		

## Attachment 1: Amended Licence L8968/2016/1

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