



Amendment Notice 2

Licence Number L7102/1997/8

Licence Holder Cleanaway Pty Ltd

ACN 000 164 938

File Number: DER2015/002480

Premises
Bayswater Transfer Station
271 Collier Road
Bayswater WA 6053
Lot 102 on Diagram 55521

Date of Amendment 27 April 2018

Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

Date signed 21 April 2018

Rebecca Kelly

**MANAGER LICENSING – WASTE INDUSTRIES
REGULATORY SERVICES (ENVIRONMENT)**

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

Definitions of terms and acronyms

In this Amendment Notice, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
ACN	Australian Company Number
Amendment Notice	refers to this document
AS 4332-2004	means the Australian Standard AS 4332-2004 (R2016) <i>The Storage and Handling of Gases in Cylinders</i>
AS/NZS 1596:2016	means the Australian/New Zealand standard AS/NZS 1596: 2014 <i>The Storage and Handling of LP Gas</i>
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 Cloisters Square PERTH WA 6850 info@dwer.wa.gov.au
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.
DFES	Department of Fire and Emergency Services
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.

EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (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
Hazardous waste	has the same meaning given to that term under the Landfill Definitions
ISO 9533:2010	ISO 9533:2010 Machine-mounted audible travel alarms and forward horns – Test methods and performance criteria
Landfill Definitions	Means the document titled “Landfill Waste Classification and Waste Definitions 1996” published by the Chief Executive Officer of the Department of Environment as amended from time to time
Licence Holder	Cleanaway Pty Ltd
LPG	liquefied petroleum gas
m ³	cubic metres
m/day	metres per day
Minister	the Minister responsible for the EP Act and associated regulations
Prescribed Premises	has the same meaning given to that term under the EP Act.
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>
tpa	tonnes per annual period

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

This notice is limited to an amendment for Category 62.

The following guidance statements have informed the decision made on this amendment:

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

1. Amendment description

Cleanaway Pty Ltd (the Licence Holder) was granted Licence L7102/1997/8 on 18 July 2013 for prescribed premises category 62 (solid waste depot) for the operation of Bayswater Transfer Station at 271 Collier Road, Bayswater on Lot 102 on Diagram 55521.

The facility is currently authorised to store up to 110,000 tonnes per annual period (tpa). Five licence amendments were granted between 19 March 2015 and 29 August 2017 for various matters such as changes to requirements for stormwater and odour management, removal of asbestos from the licence, a change of the Licence Holder name and increase of the throughput capacity from 80,000tpa to 110,000tpa. The licence has been granted until 6 August 2024.

Amendment Notice 2 is the result of a Licence Holder initiated amendment. The Licence Holder submitted an application on 28 November 2017 seeking to amend the licence to enable the receipt of the follow waste streams for storage and disposal to licensed waste disposal facilities:

- Waste oil, up to 15,000L annually, located at the southwest wall of the Transfer Station shed;
- Empty plastic hydrocarbon (oil) containers, up to twenty 1100L bins annually, located at the southwest wall of the Transfer Station shed;
- Waste vehicle batteries, up to 15 tonnes annually, located inside and outside the Transfer Station shed at the southwest wall; and
- Empty LPG bottles, approximately 1,000 annually, located outside the Material Recovery Facility (MRF) at the north-west corner.

Waste oil will be stored in a purpose-built, bunded (double-skinned) 5000L tank. Empty plastic hydrocarbon (oil) containers will be collected in three 1100L hydrocarbon bins. Waste vehicle batteries will be collected in plastic bunded containers. All of the storage containers will be covered to reduce the likelihood of rainwater infiltration. Empty LPG bottles will be stored in three cages provided by Toxfree, a licensed waste disposal company. The locations of these additional waste types are shown on the site plan shown in Figure 1: LPG bottles are indicated in red and white, and the location for the other additional waste types is circled in black.

The application also seeks to amend Table 1.2.3 of Condition 1.2.3 of the licence which

contains the following:

Table 1.2.3: Waste processing		
Waste type	Process	Process limits
Putrescible waste	Receipt, handling and storage prior to disposal	<ul style="list-style-type: none">• Only to be stored and sorted within an enclosed building provided with hardstand and bund to prevent run-off; and• Not to remain on the Premises for more than 48 hours.

The Licence Holder has stated that the putrescible waste accepted for processing through the Transfer Station shed is generally dry and produces very little to no leachate. As Table 1.2.3 of Condition 1.2.3 also requires the putrescible waste to be on the Premises no more than 48 hours, there is also limited time for any leachate to accumulate.

A supervisor will be present at all times during the operations required to process putrescible waste. The Licence Holder has provided their Site Emergency Management Plan (SEMP), which stipulates the use of roll-out style bunds at the entrance and exit of the Transfer Station in an emergency, which is specified as 'a product spill, leachate or environmental incident'. In addition, it stipulates the requirement to block storm water drains, cover pits and prevent product entering the sediment ponds.

The SEMP also details containment procedures for minimising the effect of an incident on the environment including:

- Roll over punctured drums so puncture is on top;
- Stand fallen drums leaking from an open top upright;
- Move broken drum/container to restricted area (with containment structures); and
- Close up-stream valve or shut down pump leading to broken/damaged pipes.

The Licence Holder has not proposed an increase in the throughput capacity of 110,000tpa. The proposed activities account for 15 tonnes (15,000L) of waste oil and 15 tonnes of waste batteries, which will be inclusive of their current throughput capacity of 110,000tpa.

Bayswater - Site Evacuation Plan
Last review: 1/03/2018

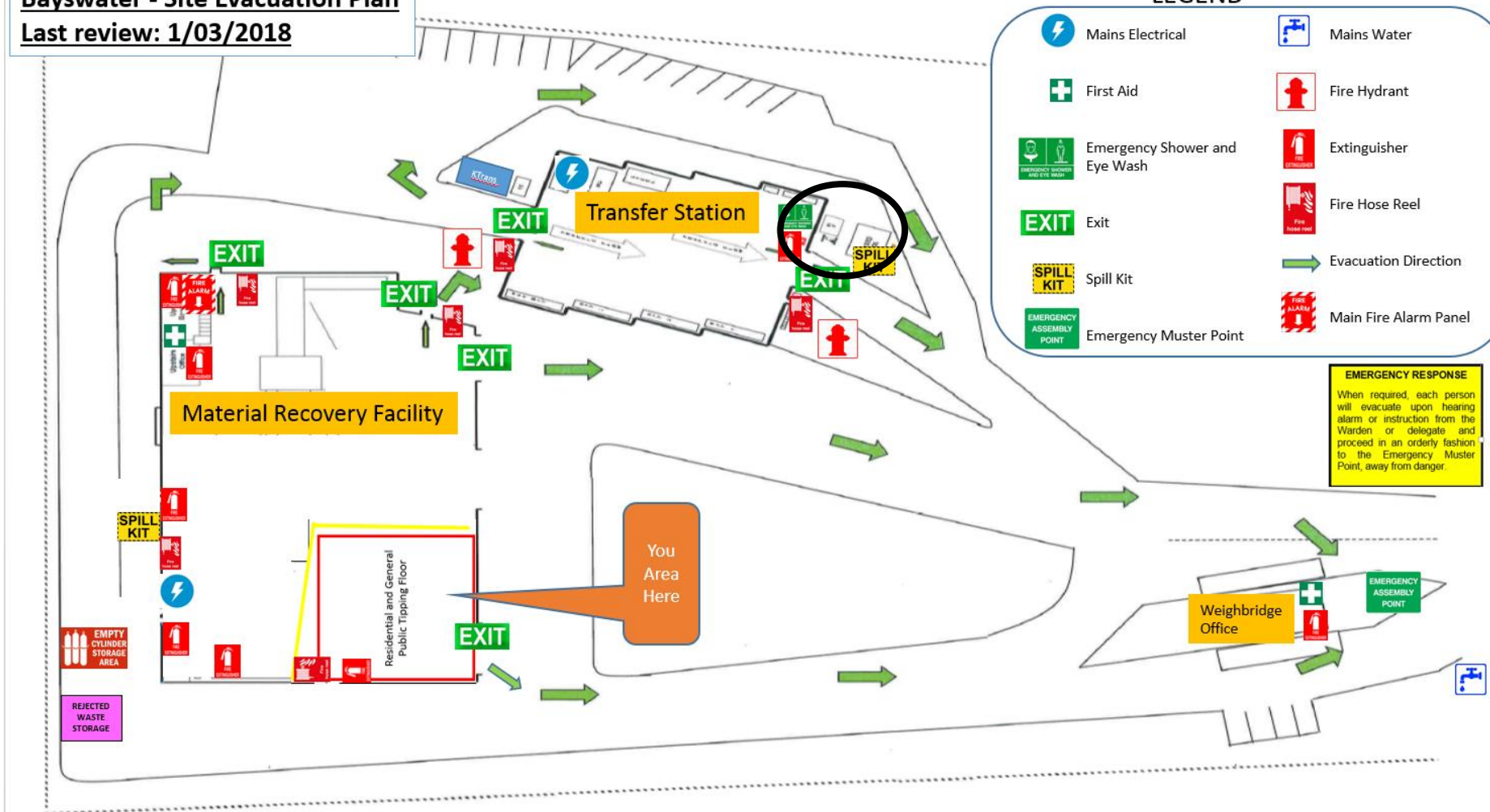


Figure 1: Site plan

2. Other approvals

The Premises is situated within an area zoned 'General Industry' within the City of Bayswater under District Town Planning Scheme No. 24 (DTPS24). Table No. 1 'Zoning Table' of DTPS24 states that an industrial activity is permitted within an area zoned 'General Industry'.

3. Amendment history

Error! Reference source not found. provides the amendment history for L7102/1997/8.

Table 2: Licence amendments

Instrument	Issued	Amendment
L7102/1997/8	18/07/2013	Reissued licence
L7102/1997/8	19/03/2015	Amendment to premises description, stormwater management and requirements to manage doors on facility.
L7102/1997/8	23/10/2015	Amendment to authorise temporary outside storage of waste
L7102/1997/8	10/12/2015	Removal of Special Waste Type 1 from the Licence
L7102/1997/8	19/05/2016	Change of Licence Holder name
L7102/1997/8	29/08/2017	Amendment Notice 1: Increase in Premises throughput
L7102/1997/8	27/04/2018	Amendment Notice 2: Receipt of waste oil, hydrocarbon containers and batteries. Removed requirement for putrescible waste processing to be undertaken in a bunded building.

4. Incidents and complaints history

In the past five years, there were a total of 37 incidents and complaints regarding the following issues (some complaints contained multiple issues):

- Four incidents regarding compliance;
- One incident regarding an emergency alarm;
- Six complaints regarding odour;
- 22 complaints regarding noise;
- Eight complaints regarding a condition breach; and
- Four complaints regarding solid waste.

5. Location and receptors

The premises is located on the north-east corner of the intersection of Collier Road and Tonkin Highway in Bayswater.

Table 3 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 3: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
Residential	130m to the north of the premises
Offices and other industrial premises	Immediately adjacent to the east of the premises 180m to the west of the premises 225m to the south of the premises
Public Open Space	Immediately adjacent to the north of the premises

Table 4 below lists the relevant groundwater and surface water receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 4: Groundwater and surface water receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Groundwater	As identified on the Department of Water and Environmental Regulation's <i>Perth Groundwater Map</i> , depth to groundwater varies between 11 mbgl and 12 mbgl as it flows across the site. Inferred groundwater direction is to the South-East.
Compensation basin	192m south south-east of the premises boundary (more compensation basins are located locally)

There are no environmental receptors, such as Bush Forever areas, Carnabys Cockatoo roosting/breeding areas or priority flora/fauna within 2km of the Premises. Other than the compensation basin listed in Table 4, there are no known surface water bodies within 2km radius of the premises, with the closest being:

- Swan River located 2.24km south-east of the premises boundary
- Gobba Lake located 2.26km south of the premises boundary
- Browns lake located 2.6km west of the premises boundary
- Swan Lake located 2.7km south, south-west of the premises boundary

6. Surface geology

The Department of Water and Environmental Regulation's *Perth Groundwater Map* identified the surface geology to be "Bassendean Sand: quartz sand (dunes)". The Bassendean sands are the surface expression of the Bassendean Dune System, which is generally comprised of predominantly medium-grained, moderately sorted, sub-rounded to rounded quartz sand, which commonly fines upwards. Bassendean Sand is typically highly permeable.

7. Wind direction and strength

The wind roses in Figure 2 provides the annual wind direction and strength (km/h) for the periods 9am and 3pm between the years 1944 to 2016 (most recent data available). The Bureau of Meteorology (BoM) provides the 9am and 3pm wind speed and direction for the Perth station (station number 009021).

The region has a dominant annual wind direction consisting of easterly to north-easterly winds during morning and south westerly and westerly winds in the afternoon. Any air emissions from the premises will impact industrial receptors in the vicinity, and potentially residential areas to the north, east and south. It is important to note that these wind roses show historical wind speed and wind direction data for the Perth area and should not be used to predict future data.

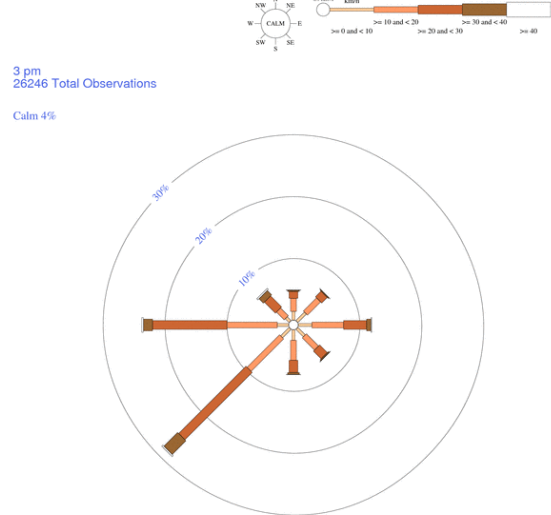
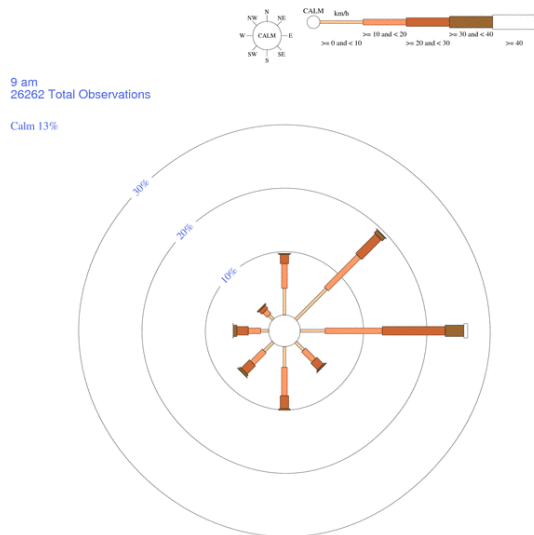


Figure 2: Wind rose for Perth Metro at 9am and 3pm (1944 – 2016)

8. Risk assessment

Table 5 below describes the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. The table identifies whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Table 5: Risk assessment for proposed amendments during operation

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Category 62 Solid waste depot	Waste acceptance, handling and storage	Odour	Residents located 130m north of the Premises	Air (windborne)	Impacts to amenity, health and wellbeing	Slight	Unlikely	Low	<p>As the proposed waste streams are not strongly odorous, they are unlikely to contribute to excessive cumulative odour impacts. Waste oil, which can have an odour, will be stored in an enclosed tank to assist in preventing the release of emissions.</p> <p>The premises currently has controls in place to manage odour regarding the Material Recycling Facility including requiring the shed doors to be closed except for specified access purposes, and limiting the time on site to no more than 48 hours. Removal of the requirement for bunding around the shed would not increase or decrease the potential for generation of odour from this process.</p> <p>The premises had six complaints regarding odour in the last five years. However, they have not had any complaints since mid-2016.</p> <p>The Delegated Officer considers that the proposed new waste streams and change in shed conditions will pose minimal impacts to health and amenity. The risk event will probably not occur in most circumstances due to the Licence Holder's proposed controls.</p>

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Category 62 Solid waste depot	Waste acceptance, handling and storage	Particulates and noxious gases from fire/explosion including embers	Residential (located 130m north of the Premises) and neighbouring and nearby industrial premises	Air (windborne) Overland migration	Impacts to amenity, health and wellbeing	Major	Rare	Medium	See detailed risk assessment in Section 11.
		Noise	Residents located 130m north of the Premises.	Air (windborne)	Impacts to amenity, health and wellbeing	Minor	Possible	Medium	See detailed risk assessment in Section 12.
		Leachate	Groundwater located 11m bgl (drinking water quality)	Seepage through hardstands Overland run-off and storm water drainage system	Contamination of groundwater supply and land (soil) for nearby users	Major	Unlikely	Medium	See detailed risk assessment in Section 13.
			Compensation basin located 196m south, south-east of premises boundary	Migration through groundwater Overland run-off	Contamination of surface waters at the point of groundwater expression Contamination of land (soil) Impacts to flora and fauna within surface water areas	Major	Unlikely	Medium	

9. Risk Criteria

During the assessment, the risk criteria in

Table 6 below will be applied to determine a risk rating set out in this section.

Table 6: Risk criteria

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

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the risk / opportunity occurring.		The following criteria has been used to determine the consequences of a risk 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"> on-site impacts: catastrophic off-site impacts local scale: high level or above off-site impacts wider scale: mid level or above Mid to long term or permanent impact to an area of high conservation value or special significance[^] Specific Consequence Criteria (for environment) are significantly exceeded 	<ul style="list-style-type: none"> Loss of life Adverse health effects: high level or ongoing medical treatment Specific Consequence Criteria (for public health) are significantly exceeded Local scale impacts: permanent loss of amenity
Likely	The risk event will probably occur in most circumstances	Major	<ul style="list-style-type: none"> on-site impacts: high level off-site impacts local scale: mid level off-site impacts wider scale: low level Short term impact to an area of high conservation value or special significance[^] Specific Consequence Criteria (for environment) are exceeded 	<ul style="list-style-type: none"> Adverse health effects: mid level or frequent medical treatment Specific Consequence Criteria (for public health) are exceeded Local scale impacts: high level impact to amenity
Possible	The risk event could occur at some time	Moderate	<ul style="list-style-type: none"> on-site impacts: mid level off-site impacts local scale: low level off-site impacts wider scale: minimal Specific Consequence Criteria (for environment) are at risk of not being met 	<ul style="list-style-type: none"> Adverse health effects: low level or occasional medical treatment Specific Consequence Criteria (for public health) are at risk of not being met Local scale impacts: mid level impact to amenity
Unlikely	The risk event will probably not occur in most circumstances	Minor	<ul style="list-style-type: none"> on-site impacts: low level off-site impacts local scale: minimal off-site impacts wider scale: not detectable Specific Consequence Criteria (for environment) likely to be met 	<ul style="list-style-type: none"> Specific Consequence Criteria (for public health) are likely to be met Local scale impacts: low level impact to amenity
Rare	The risk event may only occur in exceptional circumstances	Slight	<ul style="list-style-type: none"> on-site impact: minimal Specific Consequence Criteria (for environment) met 	<ul style="list-style-type: none"> Local scale: minimal to amenity Specific Consequence Criteria (for public health) met

[^] 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*
 "on-site" means within the prescribed premises boundary.

10. Risk Treatment

DWER will treat risks in accordance with the Risk Treatment Matrix in Table 7 below:

Table 7: Risk Treatment

Rating of Risk Event	Acceptability	Treatment
Extreme	Unacceptable.	Risk event will not be tolerated. DWER may refuse application.
High	Acceptable subject to multiple regulatory controls.	Risk event will be tolerated and may be subject to multiple regulatory controls. This may include both outcome-based and management conditions.
Medium	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.
Low	Acceptable, generally not controlled	Risk event is acceptable and will generally not be subject to regulatory controls.

11. Detailed Risk Assessment – fire, smoke and gases in event of fire

General hazard characterisation

The acceptance, handling and storage of waste oil, empty hydrocarbon containers, waste vehicle batteries and LPG bottles have the potential to generate fire resulting in smoke and noxious gas emissions.

Fire can be generated through contact of an ignition source with volatile substances such as LPG gas, hydrocarbons, battery leachate, or structures containing flammable materials. Smoke and noxious gases can be generated by fire from such substances.

The waste oil, waste vehicle batteries and empty plastic hydrocarbon containers are proposed to be stored at the south-west corner of the Transfer Shed both internally and externally. The LPG bottles are proposed to be stored at the north-west corner of the MRF. They are partially shaded by nearby trees.

Fire has the potential to be transmitted via overland migration and windborne embers (air) to nearby receptors including residential premises 130m north of the premises boundary, and industrial premises immediately adjacent to the premises to the east, 180m to the west and 225m to the south. Fire can impact on the safety and wellbeing of human receptors and the structural integrity of premises in residential and industrial areas.

Smoke and noxious gases can impact on the amenity and health of human receptors via inhalation and can act as irritants via contact with eyes and skin.

The premises had one incident (October 2015) regarding fire in the last five years. The cause of the fire was listed as accidental. Smoke from the fire was blown west-south-west and then south-south-east, affecting Tonkin Hwy and industrial premises to the west and south.

Criteria for assessment

Relevant air quality criteria include the Ambient Air Quality National Environmental Protection Measure (NEPM) 1998 (as amended in 2015).

Although there are no specified Department criteria for fires, the Department of Mines, Industry Regulation and Safety (DMIRS) through the Dangerous Goods Safety Act 2004 and the Dangerous Goods Safety (Explosives) Regulations 2007 require LPG gas bottles (full and empty) to be stored in accordance with the requirements of AS/NZS 1596:2016 and AS 4332.

Licence Holder controls

The Licence Holder proposes to store the additional waste types (excluding LPG bottles) in containers that are either self-bunded (waste oil and waste batteries) or are stored in a bunded hardstand area (empty plastic hydrocarbon containers). LPG bottles will be stored in three cages provided by Toxfree, a licensed waste disposal company.

The SEMP contains emergency response guidance for fire/explosion and requires that all personnel shall be provided with Emergency Awareness Training within six months of their employment.

Key findings

The Delegated Officer has reviewed the information regarding fire and has found:

- 1. LPG bottles are received in deliveries of mixed wastes as well as being directly disposed of at the Premises by clients. A maximum of 1,000 bottles per year will be accepted.*
- 2. It is acknowledged that although the LPG bottles received are likely to be considered 'empty' (not containing useable quantities of gas), the Licence Holder does not operate an LPG bottle degassing/purging station on the premises and therefore the LPG bottles should be treated with the same precautions as if they were full, as residual hazards remain (AS 4332-2004 and AS/NZS 1596:2016).*
- 3. The residential and industrial human receptors are located at a short distance from the premises and could be impacted by smoke and gases emissions.*

Consequence

Based upon the proximity of human receptors, the Delegated Officer has determined that high level on-site and mid-level off-site impacts and high-level impact to amenity may be experienced in regard to fire, smoke and gas emissions. Therefore, the Delegated Officer considers the consequence of fire, smoke and gas emissions is **major**.

Likelihood of consequence

Based upon the Licence Holder's controls, proximity to the receptors and compliance history the Delegated Officer has determined that the major consequence of fire, smoke and gas emissions will probably not occur in most circumstances. Therefore, the Delegated Officer considers the likelihood to be **rare**.

Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above for the Risk Criteria (Table 6) and determined that the overall rating for the risk of fire, smoke and gas emissions is **medium**.

Regulatory controls

The Existing Licence includes the following licence condition that assists in limiting the emissions of fire, smoke and noxious gases:

- Suitable fencing must be erected and maintained to prevent unauthorized access to the site (Condition 1.2.4); and
- No waste is to be burnt on the premises (Condition 1.2.7).

The Delegated Officer considers an additional condition should be inserted specifying that the additional waste types (excluding LPG bottles) can be stored for up to one month before being removed from the premises for disposal to a licensed waste disposal facility.

The Delegated Officer considers an additional condition should be inserted specifying that 'empty' LPG bottles can be stored until one full cage (supplied by a licensed waste disposal company) has been accumulated before being removed from the premises for disposal to a licensed waste disposal facility.

The Delegated Officer considers that the above controls are sufficient at addressing the risk of fire, smoke and noxious gas emissions associated with the additional waste types.

12. Detailed Risk Assessment – noise

General hazard characterisation

The acceptance, handling and storage of waste oil, empty hydrocarbon containers, waste vehicle batteries and putrescible waste have the potential to generate noise.

Noise can be generated through a variety of processes including (but not limited to) operation of plant and machinery including reversing alarms, opening/closing of the roller doors to the MRF shed, waste handling, maintenance activities, or use of hand tools.

The waste oil, waste vehicle batteries and empty plastic hydrocarbon containers are proposed to be stored at the south-west corner of the Transfer Shed both internally and externally. The LPG bottles are proposed to be stored at the north-west corner of the MRF. They are partially shaded by nearby trees.

It is noted that the proposed volumes of additional wastes are small in comparison to the existing Licence throughput capacity and are not expected to generate an increase in overall volumes of traffic or plant/machinery activity on the premises.

Noise has the potential to be transmitted through the air to nearby receptors including residential premises 130m north of the premises boundary, and industrial premises including offices and public open space immediately adjacent to the premises to the east and north respectively.

Noise can impact on the amenity of human receptors. Extremely excessive or extended noise can impact health of human receptors via damage to hearing.

The premises had 22 complaints regarding noise in the last five years, a number of which noted specifically that the noise came from the MRF shed when the doors were open (nine), the use of reversing beacons (five), and the movement of site bins (ten). 20 of these complaints were regarding after hours operations.

Criteria for assessment

Environmental Protection (Noise) Regulations 1997 (EP Noise Regulations) specify the maximum assigned noise levels authorised to be emitted from a premises in relation to the receiving receptors and siting.

The Noise Regulations LA₁₀ assigned levels for a 'Noise sensitive premises: highly sensitive area', being an area used for a residential purpose, are applicable for noise emissions from the Premises and are specified as follows:

- 0700 to 1900 hours Monday to Saturday (referred to as day-time hours): 45 dB +

influencing factor;

- 0900 to 1900 hours Sunday and public holidays: 40 dB + influencing factor;
- 1900 to 2200 hours all days: 40 dB + influencing factor; and
- 2200 to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays: 35 dB + influencing factor.

Licence Holder controls

The Licence Holder has informed DWER that the hours of operation for the premises are as follows:

- Operational hours:
 - 0700 to 2200 Monday to Saturday;
 - 1000 to 1600 Sunday;
- Open to the public:
 - 0730 to 1600 Monday to Friday;
 - 1000 to 1600 Saturday and Sunday; and
- Movement of site bins restricted to 0700 to 1700 Monday to Saturday.

No additional Licence Holder controls have been proposed to manage potential noise emissions from the acceptance of the additional waste streams and amending the condition requiring bunding around the MRF shed.

Key findings

The Delegated Officer has reviewed the information regarding noise and has found:

1. *The nearest receptors are industrial premises and the public open space adjacent to the Premises, and residential premises 130m north of the Premises.*
2. *There have been 22 complaints regarding noise emissions from the premises during the last five years.*
3. *The Premises is operated outside of 'day time' hours which are assigned a lower decibel limit under the EP Noise Regulations.*
4. *The Existing Licence includes several conditions that assist in limiting noise emissions, which are briefly discussed below in 'Regulatory controls'.*

Consequence

Based upon the proximity of human receptors, the Delegated Officer has determined that low level impacts to amenity may be experienced in regard to noise. Therefore, the Delegated Officer considers the consequence of noise emissions is **minor**.

Likelihood of consequence

Based upon the Licence Holder's controls, proximity to the receptors and compliance history the Delegated Officer has determined that the minor consequence of noise emissions could occur at some time. Therefore, the Delegated Officer considers the likelihood to be **possible**.

Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above for the Risk Criteria (Table 6) and determined that the overall rating for the risk of noise emissions is **medium**.

Regulatory controls

The Existing Licence includes the following licence conditions that assist in limiting the emissions of noise:

- Putrescible waste can only be sorted and stored within an enclosed building (Table 1.2.3 in Condition 1.2.3); and
- Specifying that the northern doors of the MRF shed are only to be opened for specified access purposes and be immediately closed upon entering and exiting (Condition 1.2.8).

The Delegated Officer considers that the existing controls are sufficient at addressing the risk of noise emissions associated with the additional waste types and amendment of Table 1.2.3 of Condition 1.2.3 to remove the bunding requirement for the processing of putrescible waste.

13. Detailed Risk Assessment – leachate emissions impacts

General hazard characterisation and impact

The acceptance, handling and storage of waste oil, empty hydrocarbon containers, waste vehicle batteries and putrescible waste have the potential to generate leachate. Excessive storage times may result in increased levels of leachate being generated.

Leachate has the potential to discharge overland into storm water systems via surface run-off and seep through soil and groundwater if sufficient infrastructure is not in place. Additionally, leachate may infiltrate through compromised hardstands and unsealed ground surfaces.

As discussed in Sections 5 and 0, groundwater is located at 11-12mbgl beneath the premises and the surface geology is considered to be permeable, creating a pathway to groundwater from surface infiltration.

Inferred groundwater direction is to the south-east, towards the compensation basin.

Leachate can impact on the quality of groundwater and surface water as well as impact on flora and fauna and cause contamination to land. The expression of contaminated groundwater in surface water bodies may result in eutrophication and the excessive growth of algae. Algae growth may impact the survival of existing organisms through light and oxygen restriction and cause the degradation of the surface water value and beneficial use.

Leachate in contaminated groundwater (particularly from sulfides) may cause nuisance odours and amenity impacts to human receptors.

Criteria for assessment

The ANZECC & ARMCANZ (2000) Australian Water Quality Guidelines for Fresh and Marine Water Quality (ANZECC) guidelines are the most appropriate assessment criteria to assess the potential impact on groundwater and surface water. In the absence of trigger levels in the ANZECC guidelines, the Department of Environment Regulation (DER) (2014) *Assessment and management of contaminated sites* guidelines may also be considered.

Licence Holder controls

The additional waste types (excluding LPG bottles) will be stored in containers that are either self-bunded (waste oil and waste batteries) or are stored in a bunded hardstand area (empty

plastic hydrocarbon containers). All containers will be covered to prevent rainwater infiltration. This amendment proposes to store the existing putrescible waste stream in a hardstand area which is not bunded. Emergency roll-out style bunds will be available at the entrance and exit doors of the Transfer Station shed to contain leachate generated in the shed as required. Containment procedures documented in the SEMP include blocking connections between on-site storm water drains and then removing contaminated water from any affected storm water drains. A supervisor will be present in the Transfer Station shed at all times during operations.

Key findings

The Delegated Officer has reviewed the information regarding leachate emission impacts from the Premises and has found:

1. *Groundwater, considered to have a beneficial use as drinking water and for domestic irrigation, is located 11mbgl.*
2. *The nearest surface water body is a local compensation basin located 196m down-gradient of the Premises and may be impacted by any contaminants migrating through groundwater in permeable sands.*
3. *The Licence Holder has previously submitted to the Department a Stormwater Management Plan (March 2015) which was been considered by the Department in May 2016 licence amendment and a series of conditions placed on the Existing Licence to reflect the Licence Holder's commitments.*
4. *A series of stormwater drains are located on the Premises which discharge to the stormwater drainage system and local compensation basins and the Swan River sub-catchment which discharges to the Swan River.*
5. *The Premises predominantly consists of an asphalt hardstand which assists in preventing infiltration of leachate when the integrity of the infrastructure is intact.*
6. *Waste is stored and sorted within an enclosed building which assists in preventing stormwater from entering the building.*
7. *The storage of additional waste types (except LPG gas bottles) is proposed to be in self-bunded containers (waste oil and waste batteries) or in bunded areas (empty plastic hydrocarbon containers) only and covered to prevent stormwater infiltration.*
8. *The Proponent has proposed controls to mitigate leachate in the event it is produced within the Transfer Station shed, stated in section 1, which have been considered by the Delegated Officer.*
9. *The Existing Licence includes controls to mitigate the risk of leachate and for stormwater management, which are briefly discussed below in 'Regulatory controls'.*

Consequence

Based upon the sensitivity and proximity of environmental receptors, the Delegated Officer has determined that mid-level local offsite impacts may be experienced in regard to leachate. Therefore, the Delegated Officer considers the consequence of leachate emissions is **major**.

Likelihood of consequence

Based upon the Licence Holder's controls, proximity to the receptors and compliance history the Delegated Officer has determined that the major consequence of leachate emissions

would probably not occur in most circumstances. Therefore, the Delegated Officer considers the likelihood to be **unlikely**.

Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above for the Risk Criteria (Table 6) and determined that the overall rating for the risk of leachate emissions is **medium**.

Regulatory controls

The Existing Licence includes licence conditions based around the Licence Holder's Stormwater Management Plan. These require the Licence Holder to:

- Sort and store all putrescible waste within an enclosed building (Table 1.2.3 of Condition 1.2.3);
- Contain and store all leachate generated within the transfer station in an impervious bunded compound before it is removed offsite (Condition 1.2.9);
- Divert all stormwater away from waste areas (Condition 1.2.10); and
- Contain any stormwater that has become contaminated with waste in the bunded impervious container before removal offsite (Condition 1.2.11).

The Delegated Officer considers an additional condition should be inserted specifying the requirement to have mobile and/or temporary bunding options available which can be easily accessible and located in close proximity to the Transfer Station shed, which are to be used in an emergency situation where leachate is generated.

The Delegated Officer considers an additional condition should be inserted specifying that the additional waste types (excluding LPG bottles) can be stored for up to one month before being removed from the premises for disposal to a licensed waste disposal facility. Conditions regarding LPG bottles have been discussed in Section 11.

The Delegated Officer considers that the above controls are sufficient at addressing the risk of leachate emissions associated with the additional waste types and amendment of Table 1.2.3 for Condition 1.2.3 to remove the requirement for the processing of putrescible waste to be undertaken in a bunded building.

14. Decision

This assessment of the risks from accepting, storing and disposing of additional waste types and removing the requirement to process putrescible waste within a bunded building has been undertaken with due consideration of a number of factors, including the documents and policies specified in this Amendment Notice 2 (summarised in Appendix 1).

Based on this assessment, the Delegated Officer has determined that the issued Amendment Notice 2 will be granted subject to the following conditions:

- Amendment of Table 1.2.1 of Condition 1.2.1 to allow the additional waste types; and
- Amendment of Table 1.2.3 of Condition 1.2.3 to:
 - Remove the requirement for the building to have a bund;
 - Insert the requirement that mobile and/or temporary bunding options are available and easily accessible proximate to the building;
 - Insert the requirement for the additional waste types (excluding LPG bottles) to not remain on the premises for more than one month;
 - Insert the requirement for LPG bottles to not remain on the premises for more

than three months or until one full cage has been accumulated, whichever occurs sooner; and

15. Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 12 April 2018. The Licence Holder provided comment on 13 April 2018 requesting that the amount of empty LPG bottles accepted annually at the Premises be increased from 80 to 1,000. This was requested as the Licence Holder now intends to offer disposal of these bottles to clients which is expected to result in an increase above what was previously received in mixed waste streams.

These comments have been considered by the Delegated Officer and based on the Licence Holder's controls and regulatory controls specified for the storage of this waste type, the increase is not expected to result in any increase to the existing risk to the environment or public health. The relevant sections of this Amendment Notice, including Table 1.2.2 below, have been updated to reflect the increase.

On 18 April 2018 the Licence Holder confirmed that they wished to waive the remainder of the consultation period.

16. Amendment

1. Table 1.2.1 of Condition 1.2.1 of the Licence is amended by the insertion of the red text shown in underline below:

Table 1.2.1: Waste acceptance		
<i>Waste</i>	<i>Quantity</i>	<i>Specification</i>
<i>Clean fill</i>	<i>Combined limit of all permitted waste types is 110,000 tonnes per annual period</i>	<i>Excludes waste accepted through the Materials Recycling Facility.</i>
<i>Inert Waste Type 1</i>		
<i>Inert Waste Type 2</i>	<i>Combined limit of all permitted waste types is 110,000 tonnes per annual period</i> <i>Less than 100 used tyres or 2m³ of shredded, broken or pieces of used tyres at any time</i>	
<i>Putrescible waste</i>	<i>Combined limit of all permitted waste types is 110,000 tonnes per annual period</i>	
<i>Other waste that complies with Class II landfill acceptance criteria as defined in the 'Landfill Waste Classification and Waste Definitions 1996 (as amended)</i>	<i>Combined limit of all permitted waste types is 110,000 tonnes per annual period</i>	

Table 1.2.1: Waste acceptance

<u>Hazardous waste limited to waste oil and used lead acid batteries</u>	<u>Combined limit of all permitted waste types is 110,000 tonnes per annual period</u> <u>Waste oil: less than 15,000L per annual period</u> <u>Waste batteries: up to 15 tonnes per annual period</u>	
<u>Empty waste oil containers (1100L)</u>	<u>Combined limit of all permitted waste types is 110,000 tonnes per annual period</u> <u>Up to 20 bins per annual period</u>	
<u>Empty LPG gas bottles</u>	<u>Combined limit of all permitted waste types is 110,000 tonnes per annual period</u> <u>Up to 1,000 bottles per annual period</u>	

2. Table 1.2.3 of Condition 1.2.3 of the Licence is amended by the insertion of the red text shown in underline below:

Table 1.2.3: Waste processing

Waste type	Process	Process limits
Putrescible waste	Receipt, handling and storage prior to disposal	<ul style="list-style-type: none"> Only to be stored and sorted within an enclosed building provided with hardstand and bund to prevent run-off; <u>Temporary and/or mobile bunding options must be available and accessible immediately adjacent to the building access points;</u> and Not to remain on the Premises for more than 48 hours.
<u>Waste oil; waste vehicle batteries; empty plastic hydrocarbon containers.</u>	<u>Receipt, handling and storage prior to disposal</u>	<u>Not to remain on the Premises for more than one month prior to removal to a licensed waste disposal facility.</u>

<u>Empty LPG bottles.</u>	<u>Receipt, handling and storage prior to disposal</u>	<u>Not to remain on the Premises for more than three months prior to removal to a licensed waste disposal facility, or until one full cage has been accumulated, whichever occurs first.</u>
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Appendix 1: Key documents

	Document title	Availability
1	Licence L7102/1997/8 – Bayswater Transfer Station	accessed at www.dwer.wa.gov.au
2	Amendment Notice 1 – Bayswater Transfer Station	accessed at www.dwer.wa.gov.au
3	Cleanaway Pty Ltd, November 2017. Amendment Application.	DWER records (A1574650)
4	Cleanaway Pty Ltd, December 2017. Email requesting LPG bottles to be added to the amendment.	DWER records (A1570656)
5	Cleanaway Pty Ltd, March 2018. Emails providing further information.	DWER records (A1639377, A1639591)
6	Cleanaway Pty Ltd, March 2018. Site Emergency Management Plan.	DWER records (A1639559)
7	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	accessed at www.dwer.wa.gov.au
8	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	
9	DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	
10	DER, November 2016. <i>Guidance Statement: Environmental siting</i> . Department of Environment Regulation, Perth.	
11	DER, February 2017. <i>Guidance Statement: Land use planning</i> . Department of Environment Regulation, Perth.	
12	DER, February 2017. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	
13	DER, February 2017. <i>Guidance Statement: Risk Assessment</i> . Department of Environment Regulation, Perth.	
14	DWER, April 2016 to June 2017. Compliance and Enforcement – Pollution Response – Incidents July 2015 – December 2015, ‘Bayswater – Cleanaway Structural Fire – 1 October 2015’ documents.	DWER records (DER2015/001762)
15	DWER, March 2018. DWER Incidents and Complaints Management System extracts.	DWER records (A1631792, A1631793, A1631794)