



Application for Licence

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

Licence Number	L9159/2018/2
Applicant	City of Cockburn
File Number	DER2018/001433
Premises	Henderson Waste Recovery Park 920 Rockingham Road WATTLEUP WA 6166 Legal description - Lot 202 on Deposited Plan 60443, Lot 2 on Diagram 17988 and Lot 235 on Deposited Plan 226117 As defined by the Premises maps attached to the issued licence
Date of Report	28 September 2021
Proposed Decision	Licence granted

**MANAGER WASTE INDUSTRIES
REGULATORY SERVICES**

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

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1. Decision summary

This Decision Report documents the assessment of potential risks to the environment and public health from emissions and discharges during the operation of the Premises. As a result of this assessment, the renewal of Licence L9159/2018/2 has been granted.

2. Scope of assessment

2.1 Regulatory framework

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

2.2 Application summary

On 26 November 2020, the applicant submitted a Licence renewal application to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The application seeks to renew licence L9159/2018/1 for the Henderson Waste Recovery Park (the Premises) operated by the City of Cockburn (the Licence Holder) at 920 Rockingham Road, Wattleup. The Premises is approximately 3.5 km north-east of the Kwinana Industrial Area. No changes to current premises operations have been proposed by the Licence Holder as a part of this renewal application.

The Premises relates to the categories and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in licence L9159. The infrastructure and equipment relating to the premises categories and any associated activities which the department has considered in line with *Guidance Statement: Risk Assessments* (DER 2017) are outlined in licence L9159.

In renewing the licence, the CEO has also:

- Updated the format and appearance of the licence;
- Deleted the redundant N1 Notification form set out in Schedule 2 of the previous licence;
- Revised licence condition's numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- Corrected clerical mistakes and unintentional errors.

2.3 Overview of Premises

The Premises provides a service to the Kwinana Industrial Area and many other commercial and domestic users where metropolitan landfill capacity is limited and currently accepts municipal solid waste, commercial and industrial waste, construction and demolition waste, inert waste and alternate daily cover. The Premises has been in operation since 1990 and encompasses the following activities.

Inert and putrescible landfill

The putrescible landfill consists of seven landfill cells. The southern portion of the landfill facility consists of Cells 1, 2, 3 and 7 and the northern portion consists of Cells 4, 5 and 6.

Cells 1, 2 and 3 have been capped since 2002. Cells 4 and 5 have been filled and temporarily closed, pending further fill before final cell closure and capping. Cell 6 has recently been capped with Construction Quality Assurance (CQA) documentation submitted to DWER on 4 March 2021. Cell 7 is currently active and is where accepted waste is being deposited, and after the

completion of Cell 7 it is the intention of the applicant to return to Cells 4 and 5 to complete filling to the landfill design profile.

In June 2016, a Landfill Closure Management Plan (LCMP) was submitted setting out the activities to be undertaken as part of the progressive closure and rehabilitation of the site. The location of capped, uncapped and active landfill cells the Premises is outlined in Figure 1.

Key Finding: The Delegated Officer notes that both Category 63 (Class I inert landfill site) and Category 64 (Class II and III putrescible landfill site) are included on the previous licence. The Delegated Officer considers that landfilling activities are adequately encompassed under Category 64 only as landfill cells at the Premises all meet the requirements of a Class II/III landfill. As outlined in the *Landfill Waste Classification and Waste Definitions 1996 (LWCWD)*, inert wastes are permitted for disposal at Class II/III landfill facilities (where authorised under respective licences).
Category 63 will therefore be removed from the renewed licence.

Leachate ponds

The primary method of managing leachate at the Premises is volume reduction via evaporation using the two leachate ponds on site (Pond A and Pond B), which are lined to achieve a permeability of less than 1×10^{-9} m/s and operated to maintain a freeboard of no less than 500mm.

The typical operation of the two leachate ponds is to maintain Pond A full of leachate throughout the year and to only use Pond B for leachate evaporation in summer and then clean it out before winter, to enable the accumulated rainfall to be discharged to the environment at the end of winter, before the pond is recommissioned for the subsequent summer. Pond B also has perimeter sprays utilised to increase the rate of evaporation from the pond

Landfill gas power generation plant

Landfill gas produced within the site since 2006 is used as the sole fuel source for internal combustion engines to generate electricity, and is undertaken on a continual basis 24hrs a day throughout the year. The landfill gas infrastructure also includes a gas flare system, which can be used to manage excess extracted gas generation via combustion, and has been designed to operate independently from the electricity generation landfill gas supply systems.

Greenwaste mulching area

Greenwaste brought to the premises which is identified as uncontaminated is removed from the domestic waste stream to the designated greenwaste area. Once a sufficient stockpile of greenwaste is accumulated it is chipped into mulch prior to reuse or removal from site.

Key Finding: The Delegated Officer considers that the mulching of greenwaste at the Premises meets the definition of Category 61A: Solid waste facility as defined by the EP Regulations. As part of the renewal, Category 61A will be added to the licence.

Domestic transfer station and Household Hazardous Waste (HHW) storage shed

The domestic transfer station services domestic customers to the premises, and facilitates the acceptance of recyclables, HHW, eWaste, greenwaste, glass, gas bottles, cardboard, metal, timber and fridges for storage pending disposal or removal from site.

The domestic transfer station is currently located on top of temporarily capped Cells 4 and 5. On 15 September 2020 the applicant was issued works approval W6380/2020/1 to construct the new Cockburn Community Recycling Centre in the location of the current greenwaste mulching area, which will replace the current domestic transfer station.

At the time of issuing the licence renewal, construction of the new transfer station had not commenced. The addition of the transfer station to the licence will be assessed under a separate amendment application on the completion of construction works and as such, the relocation of

the transfer station and greenwaste mulching area has not been considered under the licence renewal process.

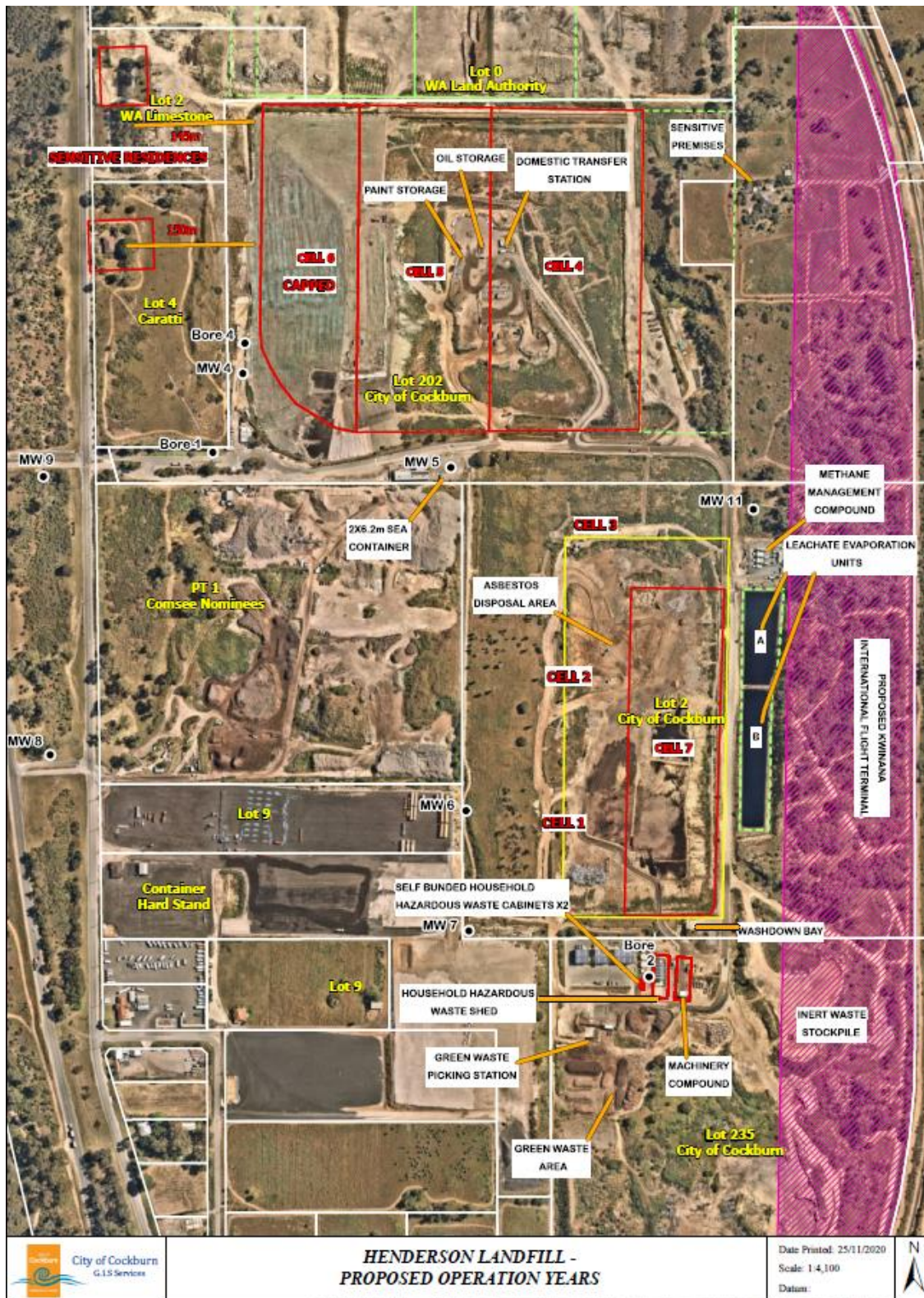


Figure 1: Premises overview

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guidance Statement: Risk Assessments* (DER 2017).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Decision Report are detailed in Table 1 below. Table 1 also details the control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Category 61 – Liquid waste facility			
Liquid waste	Spills or leaks of environmentally hazardous wastes	Land and waters: impacts to underlying soils and groundwater	Paint and resins are stored within dedicated impermeable and bunded storage containers provided by the Paintback Scheme. Liquids are not decanted or treated at the Premises.
Potentially contaminated stormwater	Interaction of stormwater with waste materials		
Category 61A – Solid waste facility			
Dust	Vehicle movements, mulching of greenwaste, stockpile lift off	Air: health and amenity impacts	Unpaved road areas are maintained in a damp state using a water cart. Mulcher is maintained in good working order and in accordance with the manufacturer specifications.
Noise	Vehicle movements and operation of mulcher		
Leachate	Stockpiling of processed and un-processed greenwaste	Land and waters: impacts to underlying soils and groundwater	Greenwaste storage area is located on compacted limestone which has a minimum thickness of 300mm.
Fire and fire washwaters	Fire resulting from stockpiled processed and un-processed greenwaste	Air: health and amenity impacts Land and waters: impacts to underlying soils and groundwater	Green waste is not stored in a dry state. No more than 2000m ³ of greenwaste and 6000m ³ of mulched greenwaste is stored on-site at any one time. Mulched greenwaste is stored in windrows no more than 3m high and 4m wide, with

Emission	Sources	Potential pathways	Proposed controls
			windrows separated by at least 5m. Windrow temperature is monitored weekly. Mulched greenwaste windrows with an internal temperature exceeding 80 degrees Celsius are turned, mixed or otherwise treated to reduce the temperature. 5m fire break maintained around the Greenwaste storage area. Restricted site access.
Category 62 – Solid waste depot			
Dust	Vehicle movements, handling and stockpiling of accepted wastes	Air: health and amenity impacts	Unpaved roads areas are maintained in a damp state using a water cart.
Noise			All machinery is maintained in good working order.
Potentially contaminated stormwater	Spills or leaks of environmentally hazardous wastes from accepted waste types or storage containers	Land and waters: impacts to underlying soils and groundwater	Accepted wastes stored within impermeable containers prior to removal from site. Site located on top of Class III landfill cells which will capture all spills into the existing landfill leachate collection system.
Fire and fire washwaters	Fire resulting from stockpiled wastes	Air: health and amenity impacts Land and waters: impacts to underlying soils and groundwater	No more than 100 tyres will be stored at any one time. In the event of a fire incident, fire washwaters will be contained within the Class III landfill cells leachate collection sumps which can be pumped out.
Category 64 – Class II or III putrescible landfill site			
Dust	Vehicle movements, disposal of waste to landfill cells, compacting of waste	Air: health and amenity impacts	Unpaved roads, fill face, dumping pad and recently capped areas are maintained in a damp state using a water cart.
Noise			All machinery is maintained in good working order.
Asbestos	Handling and disposal of asbestos and ACM		An Asbestos Management Plan has been provided as part of the Application. No asbestos is stockpiled on site. Only disposed of to a designated asbestos disposal area within the landfill and not deposited within 2m of the final tipping surface.
Odour	Acceptance and disposal of		Waste is leveled and compacted as soon as practicable as soon as practicable after

Emission	Sources	Potential pathways	Proposed controls
	putrescible wastes		disposal to landfill, and by no later than the end of the working day. The size of the active tipping face is no larger than 30m long x 40m wide x 2m high.
Windblown waste	Waste materials	Air: Amenity and nuisance impacts, attraction of pests and vermin.	Waste kept well confined at the working face to reduce the amount of waste susceptible to wind. Where possible, work at the working face occurs with the exposed active face pointed towards the wind direction so that loose debris is blown onto the area being worked. Compacted waste covered as soon as possible to minimise litter escaping from the active face. Use of 1800mm high mobile litter fences positioned near the active face as win and landfill operations change. Manual litter picking from litter crews to pick up any litter not trapped by the fences to prevent off-site migration.
Pests and Vermin	Wastes providing a breeding habitat for rats, flies, cockroaches and mosquitoes as disease vectors	Vermin and pathogens: Amenity impacts and pest associated diseases	Immediate covering of kerbside collected waste. Regular controlling of flocks of birds using gas gun, bird distress signal and marksmen from local gun club. Protected birds are not shot. Landfill compaction and daily cover. The entire site is rat baited twice every year.
Leachate: landfill cells	Degradation of putrescible wastes, supersaturation of waste mass due to over irrigation during leachate recirculation	Land and waters: impacts to underlying soils and groundwater	A revised Leachate Management Plan has been provided as part of the Application. Class III cells are lined to achieve a permeability of less than 1×10^{-9} m/s. Leachate collection system installed across all cells leading to leachate collection evaporation ponds. Leachate generation is monitored annually. The volume of leachate irrigation is monitored when irrigation is occurring. Ambient groundwater quality is monitored biannually and annually. Please also refer to Section 3.3 below for ongoing leachate management controls.
Leachate: evaporation	Overtopping of leachate storage		Leachate ponds are lined to achieve a permeability of less than 1×10^{-9} m/s.

Emission	Sources	Potential pathways	Proposed controls
ponds	ponds, seepage through base of storage ponds		Accelerated forced evaporation system installed on evaporation ponds. Leachate generation is monitored annually. Ambient groundwater quality is monitored biannually and annually. Please also refer to Section 3.3 below for ongoing leachate management controls.
Potentially contaminated stormwater	Run-off from leachate storage ponds, run-off from landfill surface due to supersaturation of waste mass due to over irrigation during leachate recirculation.		Leachate ponds maintain a freeboard of no less than 500mm. The volume of leachate irrigation is monitored when irrigation is occurring. Stormwater drainage system in place to divert stormwater away from landfilled areas into infiltration basins Please also refer to Section 3.3 below for ongoing leachate management controls which will in turn affect the management of potentially contaminated stormwater.
Landfill gas	Degradation of putrescible wastes	Air: health and amenity impacts	A Landfill Gas Management Plan has been provided as part of the Application. All landfill gas is captured and utilised as a fuel source for internal combustion engines that generate electricity on site. Excess extracted landfill gas is flared for disposal.
Smoke/Fire	Upset conditions	Air: health and amenity impacts Landfill liner damage resulting in increased leachate loss leading to contamination of groundwater	Regular covering of waste (daily cover). Fire breaks around perimeter of site. Site security. Emergency Fire Procedure

3.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), the Delegated Officer has excluded employees, visitors and contractors of the applicant's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 2 and Figure 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guidance Statement: Environmental Siting* (DER 2016)).

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

Human receptors	Distance from prescribed activity
Commercial premises/private residence	25 m and 105 m west/north-west of premises boundary along landfill Cell 6.
Commercial premises	20 m north of premises boundary along landfill Cell 4/5 (45 m north-east of Cell 6 boundary).
Private residence	125 m west of premises boundary along landfill Cell 6 and 80 m east of premises boundary along landfill Cell 4.
Environmental receptors	Distance from prescribed activity
Groundwater	Superficial aquifer from 5 metres below ground level (mbgl). Leederville aquifer from 100 mbgl. Yarragadee-North aquifer from 500 mbgl.
RIWI Act Groundwater Area	The Premises is within the Cockburn Groundwater Area (Proclaimed status).
Beneficial users of groundwater	Industry, irrigation for public space, garden bores Approximately 110 Groundwater Licence (GWL) monitoring wells and private use bores located within a 2 km radius of the premises with abstraction predominately from the Superficial and Leederville. Aquifers.
Public Drinking Water Source Areas – Jandakot Underground Water Pollution Control Area (P1, P2 & P3 priority protection areas)	Approximately 5000 m east of premises boundary.
Bushforever – Beeliar Regional Park (Brownman Swamp, Anderson Swamp and Mount Brown Lake)	580 m west of premises boundary.
Priority 3 Threatened Ecological Community buffers – Northern Spearwood Shrublands and Woodland	The premises and surrounding area are located within the buffer indicating that any remnant native vegetation may be considered to be habitat.
Threatened Fauna	Identified surrounding the premises (<i>Calyptorhynchus latirostris</i> , <i>Tringa nebularia</i> , <i>Isoodon fusciventer</i> , <i>Lerista lineata</i>) indicating that native vegetation may be providing habitat.

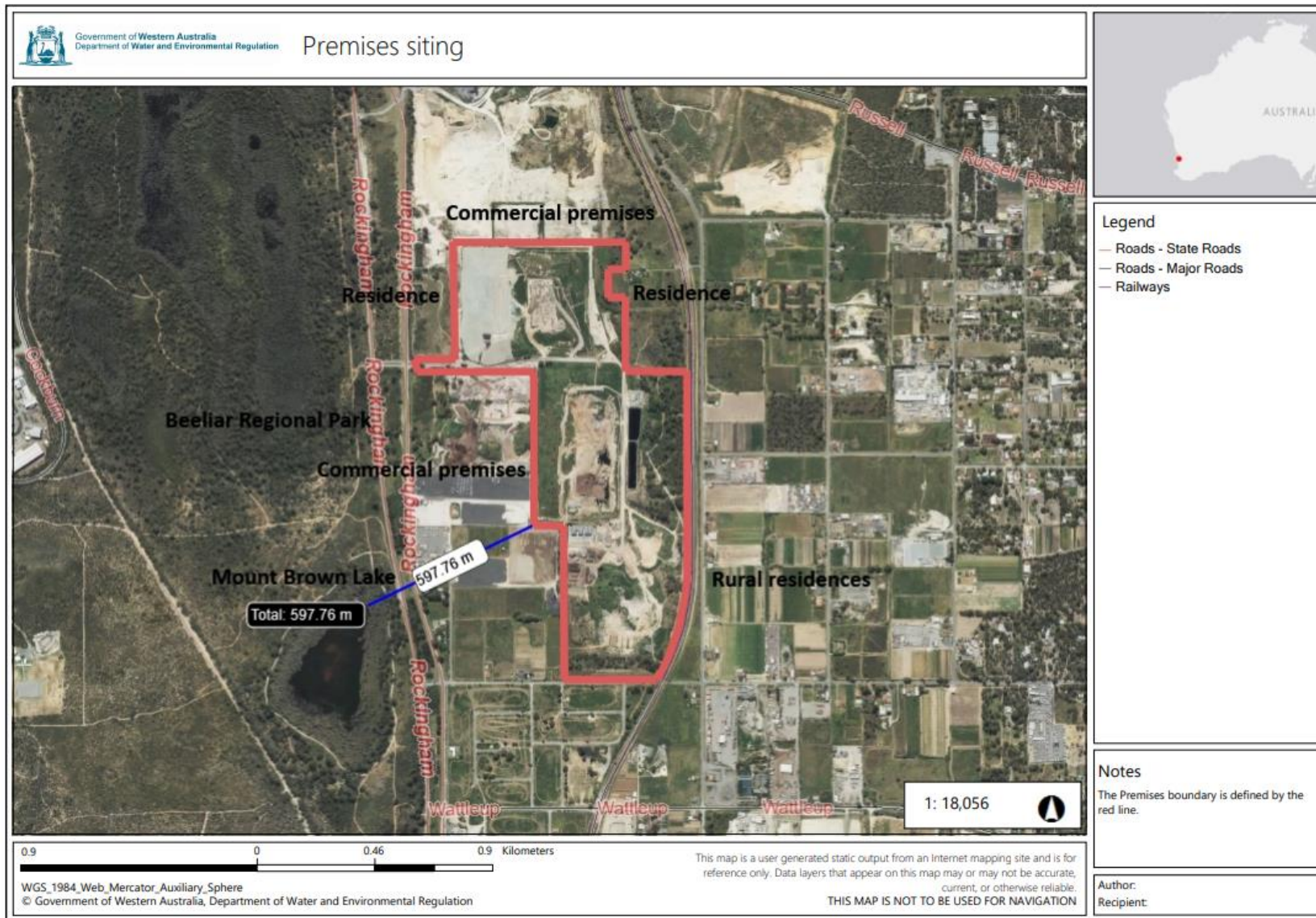


Figure 2: Distance to sensitive receptors

Licence: L9159/2018/2

IR-T13 Decision Report Template (short) v2.0 (July 2020)

3.2 Capping of Cell 6

On 10 March 2020 the applicant was granted an amendment to previous Licence L9159/2018/1 to authorise the capping and closure of Cell 6 at the premises. The applicant submitted a compliance certification on 4 March 2021 to confirm that the capping works were undertaken in accordance with the specifications outlined in the previous Licence. A review of the compliance certification was undertaken separately from this review and compliance was confirmed via letter to the Licence Holder on 2 June 2021.

Key Finding: The Delegated Officer notes that the capping of Cell 6 is now complete. Conditions relating to these works will be removed from the Licence.

3.3 Landfill leachate

3.3.1 Compliance inspections

On 19 November 2019 an inspection was undertaken at the Premises by DWER (Compliance) to assess containment infrastructure, waste acceptance criteria, leachate management and licence conditions. The inspection uncovered some concerns regarding ongoing leachate management at the site which were non-compliant with conditions of Licence L9159/2018/1. The inspection findings including corrective actions undertaken by the applicant are detailed in Table 3 below. The City of Cockburn were issued a Letter of Warning for the non-compliances under section 58(1) of the EP Act on 21 May 2020.

Table 3: Inspection findings and corrective actions

Issue	Corrective actions
<p>The City of Cockburn advised leachate is recirculated directly to the surface of the landfill cells, from leachate extraction points without directing to the leachate storage ponds.</p> <p>Leachate is also pooling on top of the surface of landfill cells.</p>	<p>On 20 December 2019, an email was sent to the City of Cockburn requesting compliance with relevant Licence conditions immediately.</p> <p>The City of Cockburn advised via email on 23 December 2019 that they will be installing a flowmeter by 31 January 2020 to monitor the leachate and direct the leachate to the leachate storage ponds, in order to be compliant.</p> <p>An assessment of the sites current leachate management practices determined they were not adequate. Similar issues were identified during the waste levy inspection conducted on 16 August 2019.</p> <p>The City of Cockburn submitted an updated Leachate Management Plan on 30 April 2020 which outlined proposed ongoing management of leachate at the site, including;</p> <ul style="list-style-type: none"> • Leachate balance calculations to determine the quantity of leachate generation and evaporation capacities of the onsite ponds; • Optimising leachate disposal using the leachate evaporation ponds and the accelerated forced evaporation system; • Increasing the efficiency of leachate circulation through the waste mass by increasing the wetted area and hence evaporation potential; and • Ongoing monitoring of leachate levels across the site to determine whether further leachate reduction strategies are required.
<p>A flow meter was not observed on the premises at the time of inspection.</p> <p>The City of Cockburn</p>	<p>On 20 December 2019, an email was sent to the City of Cockburn requesting immediate compliance with this condition.</p> <p>The City of Cockburn advised via email on 23 December 2019 that they will be installing a flowmeter by 31 January 2020 comply with this</p>

Issue	Corrective actions
<p>advised a flow meter was not installed on the premises.</p> <p>The volume of leachate irrigated over lined cells was not being monitored via a flow meter.</p>	<p>requirement.</p> <p>The City of Cockburn provided photographic evidence on 16 January 2020 of the installed flowmeter between pond A and B. The City also advised:</p> <ul style="list-style-type: none"> • that the new flow meter measures all leachate leaving leachate ponds; and • A spreadsheet was created to record leachate volume movement.
<p>A large area of boundary road on the western side of the caped cell 2 was observed to be covered recently with clay and limestone. Liquid was also observed.</p> <p>The City of Cockburn referred to the area as a “cell wall blowout” and that they assumed the leached water was stormwater. They have been managing this for the last two years.</p>	<p>DWER officers collected samples of soil and water from the area and delivered to MPL Laboratories in Myaree for analysis.</p> <p>Results were received from MPL Laboratories on Monday 25 November 2019. Results showed elevated levels of inorganics (Chloride, Ammonia as N, Nitrate as N and Dissolved CrVI), confirming that the liquid was leachate from the landfill cell.</p> <p>On 2 December 2019, an email was sent to the City of Cockburn requesting leachate emissions cease from the cell wall blowout with immediate effect.</p> <p>On 13 February 2020 the City of Cockburn excavated a number of pits along the edge of the landfill down to the lined perimeter bund to determine if leachate was present and whether the perimeter bund had failed.</p> <p>It was determined through this investigation that the leachate spill was caused by the landfill cell being supersaturated with leachate and that the cell wall had not failed.</p> <p>The updated Leachate Management Plan submitted on 30 April 2020 outlines future management practices to prevent the saturation of the waste mass with recirculated leachate.</p>

Key Finding: The Delegated Officer notes that the issues with leachate management at the Premises identified during the compliance site inspections have been rectified by the Licence Holder.

The newly proposed measures to manage leachate disposal at the Premises will be assessed through the below risk assessment and additional regulatory controls will be incorporated into the renewed Licence if found appropriate.

3.3.2 Ongoing leachate management

In response to the findings of the site inspection, the applicant submitted an updated Leachate Management Plan on 30 April 2020 outlining future management practices at the Premises. The proposed measures for ongoing leachate management are summarised as follows.

Leachate evaporation ponds

The use of the evaporation ponds accounts for the majority of leachate disposal at the Premises. Pond A and Pond B have a maximum evaporation area of 3,620m² and 3,955m² respectively. The typical operation of the ponds is to maintain Pond A as the primary leachate collection pond through the year and only utilise Pond B during the summer months, so as to allow for the accumulation of stormwater within Pond B during winter. Both ponds are HDPE lined to achieve a permeability of less than 1 x 10⁻⁹ m/s. Pond B also has perimeter sprays installed around the perimeter to further increase the rate of evaporation from the ponds.

Accelerated forced evaporation

The applicant has commenced using a leachate evaporation plant at the two evaporation ponds, which acts to extract leachate from the ponds and pass it through an aeration process to accelerate the evaporation of leachate. The system incorporates eight units across the two evaporation ponds which are modular, allowing for the potential for more units to be incorporated into the system if required. It is anticipated that this system can remove 12,000 kL of leachate per year from the Premises, which will act to reduce the need for leachate to be recirculated onto the landfill cells.

On 21 July 2021, the applicant advised that the two units placed at the Leachate Ponds A and B were decommissioned and were replaced with 7 units on top of Cell 3. This preferred location exposed the units to the prevailing winds to improve operational efficiency. There are 7 units in all (3 x 3m long modules and 4 x 6m long modules) installed and operational.

In the 12 months of 2020-2021, the accelerated leachate evaporation units processed 6,331,000 L or 6,331kL.

The applicant has advised that further modifications to improve throughput are planned in readiness for the warmer summer months to achieve the 12,000 kL/year target.

Leachate recirculation onto landfill surfaces

Leachate is recirculated into Cells 1, 2, 3, 4, 5 and 7, and was previously recirculated into Cell 6 prior to the cell being capped. To prevent further pooling of leachate across the cell surface and the supersaturation of the waste mass, it is proposed to increase the area of irrigation across the uncapped landfill cells so as to ensure moisture is not concentrated in one area. Finer sprays will also be used on recirculation irrigation infrastructure to maximise evaporation potential.

On 21 April 2021 the applicant advised that in the 12 months of 2020-2021 229kL were pumped from Pond A to B

- 50kl were removed from Cells 1, 2 and 3.
- 1,905kl were removed from Cell 7.
- 44kl were removed from Cell 6 and
- 10kl were removed from Cell 4

Total site leachate reticulation = 1,969kl

Leachate absorption to the waste mass

Leachate injection wells are present in Cells 1, 2, 4, 5 and 6 at the Premises within the waste mass. All wells have been in use at the Premises for some time and as such, it is assumed that waste around the wells is no longer able to retain the additional moisture and the leachate will filter back down to cells leachate collection sumps. In this regard the injection of leachate to the waste mass is considered as a time delay for leachate accumulation in the leachate evaporation ponds only, and has been determined to have no beneficial capacity for leachate reduction at the Premises.

Key Finding: The Delegated Officer notes that the previous Licence contained no regulatory controls relating to the accelerated forced evaporation units or the recirculation of leachate through the Class III landfill cells.

In lieu of the findings from compliance inspections at the Premises, the Delegated Officer considers that conditions relating to the ongoing management of leachate may be reviewed for inclusion on the renewed Licence, subject to the below detailed risk assessment of the above activities that have not been previously assessed.

3.4 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

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

Licence L9159 that accompanies this Decision Report authorises emissions associated with the operation of the Premises i.e. category 61, 61A 62 and 64 activities.

The conditions in the issued Licence, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

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

Risk Event					Risk rating ¹	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
Category 61								
Acceptance of hazardous liquid wastes for storage pending removal from site	Odour – storage of open containers within bunded area	Air causing amenity impacts	Commercial premises and private residences within 130 m of Premises boundary	Refer to Section 3.1.1	C = Minor L = Rare Low Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements Condition 10 – Odour management	Liquid waste is limited to small quantities of paint with odour generation expected to be limited to the immediate storage areas. Taking into consideration the quantities and proposed infrastructure controls, the Delegated Officer considers that odour may result in low level impacts to amenity only in exceptional circumstances. Existing Licence condition 9 has been carried over relating to the management of unreasonable odour emissions. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.
	Liquid waste – spills or leaks of environmentally hazardous wastes	Land and waters causing impacts to underlying soils and groundwater	Underlying groundwater of the Cockburn Groundwater Area, including beneficial users	Refer to Section 3.1.1	C = Moderate L = Rare Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements Condition 14 – Hazardous material storage Condition 15 – Spill management Condition 29 & 30 – Ambient groundwater monitoring	Taking into consideration the quantities and proposed infrastructure controls, the Delegated Officer considers paint spills may cause low level onsite or offsite impacts to sensitive receptors only in exceptional circumstances. Conditions included in the Licence generally replicate controls already in place by the Licence Holder and conditions from the previous Licence.
	Potentially contaminated stormwater		Beeliar Regional Park 580 m west of the Premises boundary Threatened ecological community buffers and threatened fauna surrounding the Premises	Refer to Section 3.1.1	C = Minor L = Rare Low Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements Condition 15 – Stormwater management Condition 29 & 30 – Ambient groundwater monitoring	Taking into consideration the quantities and proposed infrastructure controls, the Delegated Officer considers that contaminated stormwater impacts from the acceptance and storage of hazardous liquid wastes would only occur in exceptional circumstances. Condition 15 has been carried over from the existing Licence relating to management and treatment of stormwater. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.
Category 61A								
Acceptance, handling, mulching and stockpiling of greenwaste prior to removal from site	Dust	Air causing impacts to health and amenity	Commercial premises and private residences within 130 m of Premises boundary	Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements Condition 8 – No visible dust	Taking into consideration the location of the greenwaste operations on the premises and other management controls the Delegated Officer considers that amenity impacts are not expected to occur during normal operations. Conditions included in the Licence generally replicate those controls already in place by the Licence Holder and conditions from the previous Licence.
	Noise			Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements	Taking into consideration the location of the greenwaste operations on the premises and the Licence Holders controls, the Delegated Officer considers that noise emissions impacting amenity are not expected to occur during normal operations. Conditions included in the Licence generally replicate those controls already in place by the Licence Holder and conditions from the previous Licence. The <i>Environmental Protection (Noise) Regulations 1997</i> also apply.
	Leachate	Land and waters causing impacts to underlying soils and	Underlying groundwater of the Cockburn Groundwater Area, including beneficial users Beeliar Regional Park 580 m west of the	Refer to Section 3.1.1	C = Moderate L = Unlikely	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing	Taking into consideration infrastructure controls in place and distance to sensitive receptors, the Delegated Officer considers leachate emissions

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Risk Event					Risk rating ¹	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
		groundwater	Premises boundary Threatened ecological community buffers and threatened fauna surrounding the Premises		Medium Risk		requirements Condition 5 – Containment infrastructure Condition 14 – Hazardous material storage Condition 29 & 30 – Ambient groundwater monitoring	impacting surrounding receptors will probably not occur in most circumstances. Conditions will be included in the Licence relating to containment infrastructure of the green waste storage area. Conditions included in the Licence generally replicate those currently in place by the Licence Holder and conditions from the previous Licence.
	Fire and smoke	Air causing impacts to health and amenity	Commercial premises and private residences within 130 m of Premises boundary Underlying groundwater of the Cockburn Groundwater Area, including beneficial users	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements Condition 5 – Containment infrastructure Condition 6 – Site security Condition 28 – Process monitoring (temperature monitoring of greenwaste windrows)	Taking into consideration the Licence Holder's management controls, the Delegated Officer considers that fire and smoke emission impacts will probably not occur in most circumstances. Conditions included in the Licence generally replicate those controls already in place by the Licence Holder and conditions from the previous Licence.
	Fire washwaters	Land and waters causing impacts to underlying soils and groundwater	Beeliar Regional Park 580 m west of the Premises boundary Threatened ecological community buffers and threatened fauna surrounding the Premises	Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 3 – Waste processing requirements Condition 5 – Containment infrastructure Condition 29 & 30 – Ambient groundwater monitoring	Taking into consideration the Licence Holder's management and infrastructure controls, the Delegated Officer considers that fire washwater emission impacts will probably not occur in most circumstances. Conditions included in the Licence generally replicate those controls already in place by the Licence Holder and conditions from the previous Licence.
Category 62								
Acceptance, handling, stockpiling and storage of waste prior to removal from site	Dust	Air causing impacts to health and amenity	Commercial premises and private residences within 130 m of Premises boundary	Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements Condition 8 – No visible dust	Taking into consideration distance to sensitive receptors and management controls in place by the Licence Holder, the Delegated Officer considers that amenity impacts from dust emissions will probably not occur in most circumstances. Condition 7 relating to visible dust management has been carried over from the Existing Licence. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.
	Noise			Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements	Taking into consideration the location of the transfer station on the site and distance to sensitive receptors, the Delegated Officer considers that amenity impacts from noise will probably not occur in most circumstances. The <i>Environmental Protection (Noise) Regulations 1997</i> apply.
	Potentially contaminated stormwater	Land and waters causing impacts to underlying soils and groundwater	Underlying groundwater of the Cockburn Groundwater Area, including beneficial users Beeliar Regional Park 580 m west of the Premises boundary Threatened ecological community buffers and threatened fauna surrounding the Premises	Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 16 – Stormwater management Condition 17 – Removal of residual waste Condition 29 & 30 – Ambient groundwater monitoring	Taking into consideration the location of the transfer station on top of a Class III cell and the stormwater infrastructure associated with the landfill cell, the Delegated Officer considers that impacts from contaminated or potentially contaminated stormwater will probably not occur in most circumstances. Condition 15 has been carried over from the previous licence relating to management and treatment of stormwater. Condition 16 has also been carried over relating to the removal of residual waste in the waste recovery area by the close of business each day. Conditions included in the Licence generally replicate controls already in place by the

Risk Event					Risk rating ¹	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
								Licence Holder.
	Fire and smoke	Air causing impacts to health and amenity	Commercial premises and private residences within 130 m of Premises boundary Underlying groundwater of the Cockburn Groundwater Area, including beneficial users	Refer to Section 3.1.1	C = Moderate L = Rare Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements Condition 6 – Site security Condition 7 – No waste burning	Taking into consideration the Licence Holder's infrastructure and management controls, the Delegated Officer considers that fire and smoke impacts may only occur in exceptional circumstances. Conditions included in the Licence generally replicate those controls already in place by the Licence Holder and conditions from the previous Licence.
	Fire washwaters	Land and waters causing impacts to underlying soils and groundwater	Beeliar Regional Park 580 m west of the Premises boundary Threatened ecological community buffers and threatened fauna surrounding the Premises	Refer to Section 3.1.1	C = Minor L = Rare Medium Risk	Y	Condition 16 – Stormwater management Condition 29 & 30 – Ambient groundwater monitoring	Taking into consideration the location of the transfer station on top of the existing Class III landfill cell and the stormwater infrastructure associated with the landfill cell, the Delegated Officer considers that impacts from fire washwaters may only occur in exceptional circumstances. Conditions included in the Licence generally replicate those controls already in place by the Licence Holder and conditions from the previous Licence.
Category 64								
Acceptance of waste for disposal via landfilling	Dust	Air causing impacts to health and amenity	Commercial premises and private residences within 130 m of Premises boundary	Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 8 – No visible dust	Taking into consideration the distance to sensitive receptors and the Licence Holder's management controls, the Delegated Officer considers that dust emissions will probably not occur in most circumstances. Condition 7 relating to visible dust management has been carried over from the Existing Licence. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.
	Noise			Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1 – Waste acceptance limits	Taking into consideration the distance to sensitive receptors and equipment being used, the Delegated Officer considers that amenity impacts from noise will probably not occur in most circumstances. The <i>Environmental Protection (Noise) Regulations 1997</i> apply.
	Odour			Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 10 – Odour management Condition 18 – Landfill management Condition 19 – Cover requirements Condition 21 – No waste excavation	Taking into consideration the Licence Holder's management controls, the Delegated Officer considers that low level odour impacts on a local scale will probably not occur in most circumstances. Conditions included in the Licence generally replicate those controls already in place by the Licence Holder and conditions from the previous Licence.
	Asbestos			Refer to Section 3.1.1	C = Severe L = Rare High Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements Condition 5 – Site security Condition 18 – Cover requirements Condition 21 – No waste excavation Condition 35 – Special waste register	Taking into consideration the Licence Holder's controls in relation to Asbestos, the Delegated Officer considers that impacts from asbestos fibre emissions may only occur in exceptional circumstances. Conditions included in the Licence generally replicate those controls already in place by the Licence Holder and conditions from the previous Licence.
	Windblown waste / litter	Air/wind dispersion causing amenity and nuisance impacts and	Commercial premises and private residences within 130 m of Premises boundary	Refer to Section 3.1.1	C = Minor L = Unlikely	Y	Condition 11 – Windblown waste management	Taking into consideration the Licence Holder's infrastructure and management controls, the Delegated Officer considers that windblown

Risk Event					Risk rating ¹	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls	
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood				
		attraction of pests and vermin.	Beeliar Regional Park 580 m west of the Premises boundary Threatened ecological community buffers and threatened fauna surrounding the Premises		Medium Risk		Condition 18 – Landfill management Condition 19 – Cover requirements	waste/litter impacts will probably not occur in most circumstances. Condition 10 relating to windblown waste management has been carried over from the Existing Licence. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.	
	Pests and vermin	Air causing amenity impacts and pest associated diseases		Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 11 – Windblown waste management Condition 12 – Pest and vermin management Condition 18 – Landfill management Condition 19 – Cover requirements	Taking into consideration the Licence Holder's proposed management controls, the Delegated Officer considers that impacts from pests and vermin will probably not occur in most circumstances. Condition 11 relating to management of pests and vermin has been carried over from the Existing Licence. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.	
	Leachate: landfill cells			Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	Y	Condition 1 – Waste acceptance limits Condition 3 – Waste processing requirements Condition 4 – Landfill infrastructure Condition 18 – Landfill management Condition 19 – Cover requirements Condition 21 – No waste excavation Condition 28 – Process monitoring Condition 29 & 30 – Ambient groundwater monitoring Condition 36 - Reporting	The Delegated Officer notes that the Premises has had historical issues in relation to the management of leachate at the Premises as detailed in Section 3.3. Since these historical issues, the Licence Holder has prepared and provided a revised Leachate Management Plan. Taking into consideration the controls proposed in the revised Leachate Management Plan, the Delegated Officer considers that, if the leachate management plan is implemented as proposed, leachate impacts will probably not occur in most circumstances. Conditions in the Licence will be updated to reflect the revised Leachate Management Plan. Conditions in the Licence will generally replicate controls in place or proposed by the Licence Holder.	
	Leachate: evaporation ponds	Land and waters causing impacts to underlying soils and groundwater		Beeliar Regional Park 580 m west of the Premises boundary Threatened ecological community buffers and threatened fauna surrounding the Premises	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 5 – Containment infrastructure Condition 29 & 30 – Ambient groundwater monitoring	Taking into consideration the Licence Holder's infrastructure and management controls, the Delegated Officer considers that leachate impacts from the leachate evaporation ponds will probably not occur in most circumstances. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.
	Potentially contaminated stormwater				Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Y	Condition 5 – Containment infrastructure Condition 16 – Stormwater management Condition 29 & 30 – Ambient groundwater monitoring	Taking into consideration the Licence Holder's infrastructure and management controls, the Delegated Officer considers that impacts from contaminated or potentially contaminated stormwater will probably not occur in most circumstances. Condition 15 has been carried over from the previous licence relating to management and treatment of stormwater. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.
	Landfill gas	Air causing impacts to health and amenity and potential explosion risk		Commercial premises and private residences within 130 m of Premises boundary	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 20 – Landfill gas management Condition 36 – Reporting	Taking into consideration the controls proposed in the Licence Holder's Landfill Gas Management Plan, the Delegated Officer considers that landfill gas impacts will probably not occur in most circumstances. Condition 25 relating to operation and maintenance of landfill gas at the Premises has been carried over from the previous licence. The requirement to prepare a Geotechnical

Risk Event					Risk rating ¹	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
								Inspection Report to visually assess the stability of all landfill embankments, cut slopes and integrity of final capping has been moved to the annual reporting requirements of the licence. This is important to confirm the ongoing stability of the landfill.
Fire and smoke		Fire can result in smoke emissions to air causing impacts to health and amenity.	Commercial premises and private residences within 130 m of Premises boundary Beeliar Regional Park 580 m west of the Premises boundary Threatened ecological community buffers and threatened fauna surrounding the Premises	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 6 – Site security Condition 7 – No waste burning Condition 19 – Cover requirements	Taking into consideration the Licence Holder's controls assuming regular covering of landfilled waste, the Delegated Officer considers the risk of fire/smoke on the site resulting in health and amenity impacts would probably not occur in most circumstances. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.
		Landfill liner damage resulting in increased leachate loss leading to contamination of groundwater	Underlying groundwater of the Cockburn Groundwater Area, including beneficial users Beeliar Regional Park 580 m west of the Premises boundary Threatened ecological community buffers and threatened fauna surrounding the Premises	Refer to Section 3.1.1	C = Major L = Rare Medium Risk	Y	Condition 19 – Cover requirements Condition 29 & 30 – Ambient groundwater monitoring	Taking into consideration the Licence Holder's infrastructure and management controls, the Delegated Officer considers the risk of fire resulting in leachate loss from landfill liner damage leading to contamination of groundwater would only occur in exceptional circumstances. Conditions included in the Licence generally replicate controls already in place by the Licence Holder.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).

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

4. Consultation

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

Table 4: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website 13 January 2021	None received	N/A
Application referred to Development WA 13 January 2021	None received	N/A
Applicant was provided with draft documents 20 July 2021	Comments were received by the department on 21 July and the 15 September 2021. See Appendix 1	See Appendix 1

5. Conclusion

Based on the assessment in this Decision Report, the Delegated Officer has determined that the application to renew licence L9159 will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of renewal

Table 5 provides a summary of changes to the previous Licence implemented under this renewal and will serve as a record of the conversion of the Licence to the new format currently in use by DWER.

Table 5: Conversion table for Licence renewal

Existing condition	Condition summary	Revised licence condition	Conversion notes
All relevant	Licensee	Licence Holder	Updated to standard terminology
1.1.1 1.1.2	Interpretation and definitions	N/A Definitions section - Table 13	Redundant conditions. Revised to current licensing format.
1.1.3 1.1.4	Reference to Australian standard, guidelines or codes of practice	N/A	Redundant condition. Removed and incorporated into other conditions.
1.2.1	Emissions	N/A	Redundant condition removed from Licence.
1.2.2	Pollution control and monitoring equipment	Condition 13	Moved to 'Waste processing' section of Licence in line with new formatting.

Existing condition	Condition summary	Revised licence condition	Conversion notes
1.2.3	Storage of environmentally hazardous materials	Condition 14	Moved to 'Waste processing' section of Licence in line with new formatting.
1.2.4	Recovery and removal of spills	Condition 15	Moved to 'Waste processing' section of Licence in line with new formatting. Wording updated to refer to relevant code of practice approved in accordance with section 20 of the <i>Dangerous Goods Safety Act 2004</i> .
1.2.5	Prevention of contamination and containment of contaminated stormwater	Condition 16	Moved to 'Waste processing' section of Licence in line with new formatting.
1.2.6 – 1.2.12	Cell 6 capping works specifications	N/A	Conditions removed from Licence as capping works have been completed.
1.3.1 Table 1.3.1	Waste acceptance	Condition 1 Table 1	Revised to current licensing format.
1.3.2	Management of waste that does not meet the waste acceptance criteria	Condition 2	Revised to current licensing format.
1.3.3 Table 1.3.2	Waste processing	Condition 3 Table 2	Revised to current licensing format.
1.3.4 Table 1.3.3	Landfill infrastructure	Condition 3 Table 3	Moved to 'Landfill management' section of Licence in line with new formatting.
1.3.5 Table 1.3.5	Other waste containment infrastructure	Condition 4 Table 4	Revised to current licensing format.
1.3.6	Landfill activity management	Condition 18	Moved to 'Landfill management' section of Licence in line with new formatting.
1.3.7 Table 1.3.5	Landfill cover requirements	Conditions 19 Table 5	Moved to 'Landfill management' section of Licence in line with new formatting.
1.3.8	Landfill gas management	Condition 19	Moved to 'Landfill management' section of Licence in line with new formatting.
1.3.9	Security measures	Condition 6	Moved to 'Waste processing' section of Licence in line with new formatting.
1.3.10	No waste burnt on premises	Condition 7	Moved to 'Waste processing' section of Licence in line with new formatting.

Existing condition	Condition summary	Revised licence condition	Conversion notes
1.3.11	Windblown waste	Condition 11	Moved to 'Waste processing' section of Licence in line with new formatting.
1.3.12	Vermin management	Condition 12	Moved to 'Waste processing' section of Licence in line with new formatting.
1.3.13	No excavation of waste	Condition 21	Moved to 'Landfill management' section of Licence in line with new formatting.
1.3.14	Waste removed from temporary transfer station	Condition 17	Moved to 'Waste processing' section of Licence in line with new formatting.
2.1.1	Record emission exceedances	N/A	Redundant condition removed from Licence.
2.2 – 2.4	Point source emissions	N/A	Redundant condition removed from Licence.
2.6.1	Dust emissions	Condition 8	Moved to 'Waste processing' section of Licence in line with new formatting.
2.6.2	Wheel cleaning facilities	Condition 9	Moved to 'Waste processing' section of Licence in line with new formatting.
2.7.1	Odour emissions	Condition 10	Moved to 'Waste processing' section of Licence in line with new formatting.
2.8	Noise emissions	N/A	Redundant condition removed from Licence.
3.1.1	Sampling standard requirements	Condition 22	Revised to current licensing format.
3.1.2	Sampling time requirements	Condition 23	Revised to current licensing format.
3.1.3	Calibration requirements	Condition 24	Revised to current licensing format.
3.1.4	Calibration reporting requirements	Condition 25	Revised to current licensing format.
3.2 – 3.4	Monitoring of point source emissions	N/A	Redundant condition removed from Licence.
3.5	Monitoring of emissions to land	N/A	Redundant condition removed from Licence.
3.6.1 Table 3.6.1	Monitoring of inputs and outputs	Conditions 26 and 27 Tables 6 and 7	Revised to current licensing format.
3.7.1	Process monitoring	Condition 28	Revised to current licensing format.

Existing condition	Condition summary	Revised licence condition	Conversion notes
Table 3.7.1		Table 8	
3.8.1 Table 3.8.1	Monitoring of ambient groundwater quality	Condition 29 Table 9	Revised to current licensing format.
N/A	Monitoring of ambient groundwater quality – field quality assurance and control procedures	Condition 30	New requirements to ensure appropriate field quality assurance and control measures are followed. Set in accordance with contemporary licensing requirements for groundwater monitoring.
3.9	Meteorological monitoring	N/A	Redundant condition removed from Licence.
4.1.1	Improvement program	N/A	Redundant condition, this requirement has been moved to the Reporting section of the Licence under the Annual Environmental Report requirements.
5.1.1	Records	Condition 31	Revised to current licensing format.
5.1.2	Copy of Licence at premises	Condition 32	Revised to current licensing format.
5.1.3	Annual Audit Compliance Report	Condition 33	Revised to current licensing format.
5.1.4	Complaints management	Condition 34	Revised to current licensing format.
5.1.5	Registers	Condition 35	Revised to current licensing format.
5.2.1 Table 5.2.1	Reporting	Condition 36 Table 10	Revised to current licensing format. Additional requirements have been included in the table requiring the submission of a Groundwater Monitoring Report. This is consistent with current licensing requirements for groundwater reporting.
5.2.2	Annual Environmental Report additional requirements	Condition 37	Revised to current licensing format.
5.2.3 Table 5.2.2	Non-annual reporting requirements	Condition 38 Table 11	Revised to current licensing format.
5.3.1 Table 5.3.1	Notification	Condition 39 Table 12	Revised to current licensing format.
Schedule 1: Maps	Premises map	Schedule 1: Maps	No change to map.
Schedule 1: Maps	Map of monitoring locations	Schedule 1: Maps	No change to map.

Existing condition	Condition summary	Revised licence condition	Conversion notes
Schedule 1: Maps	Landfill and storage area map	Schedule 1: Maps	Map updated.
Schedule 1: Maps	Detailed design plans (6 drawings)	N/A	Redundant maps deleted as capping works have been completed.
Schedule 2	Form N1 Notification	N/A	Redundant attachment. Deleted from Licence
Schedule 3	Minimum specifications	N/A	Redundant schedule deleted as capping works have been completed.
Schedule 4	CQA Requirements	N/A	Redundant schedule deleted as capping works have been completed.

References

1. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
2. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
3. DER 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.

Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition / Section	Summary of applicant's comment	Department's response
Table 1 – Category 61A design capacity	<p>The 61A design capacity should be at least 15,000 tonnes.</p> <p>This year 7,916 tonnes of greenwaste was recovered from the garden waste bin service and this will grow as more garden waste bins are rolled out to those on the 2 bin system and to cover population growth. In addition there is 1,685 tonnes from bulk verge greenwaste collection services and 650 tonnes from the community drop off facility (total 10,225 tonnes)</p>	Noted, the Licence and Decision Report have been revised taking into consideration a throughput of 15,000 tonnes for Category 61A.
Table 5	Special Waste Types 1 and 2– Confirmed that current cover practices meet minimum requirements	Noted.
Decision Report – Table 1 – Proposed Applicant Controls – Smoke/Fire	Provided copy of the City's Fire Management Plan for Henderson Waste Recovery Park	The Fire Management Plan has been reviewed and the Licence and Decision Report revised.
Decision Report – Section 3.3.2 – Ongoing leachate management	<p><u>Accelerated Forced Evaporation</u></p> <p>The 2 units placed at the Leachate Ponds A and B were decommissioned and were replaced with 7 units on top of Cell 3. This preferred location exposed the units to the prevailing winds to improve operational efficiency. There are 7 units in all (3 x 3m long modules and 4 x 6m long modules) installed and operational.</p> <p>In the 12 months of 20-21, the accelerated leachate evaporation units processed 6,331,000 L or 6,331kL.</p> <p>Further modifications to improve throughput are planned in readiness for the warmer summer months to achieve the 12,000 kL/year target.</p> <p><u>Leachate recirculation onto landfill surfaces</u></p> <p>229kL were pumped from Pond A to B</p> <ul style="list-style-type: none"> • 50 kL were removed from Cells 1, 2 and 3 • 1,905 kL were removed from Cell 7 	<p>Noted, section 3.3.2 of the Decision Report has been revised with the updated information regarding leachate management.</p> <p>The premises map in Schedule 1 of the Licence has been revised.</p>

Condition / Section	Summary of applicant's comment	Department's response
	<ul style="list-style-type: none"> • 44 kL were removed from Cell 6 and • 10 kL were removed from Cell 4 <p>Total site leachate recirculation = 1,969 kL</p> <p>The leachate lost due to evaporation in Ponds A and B is estimated at 25% of the annual rainfall in the area of 750 mm and an average pan evaporation of 1,725mm/yr</p> <p>The surface area of both leachate Ponds A and B is 8,250m²</p> <p>This would account for a further evaporation of 14kL/year.</p> <p>In addition, Cell 6 is now capped and no longer contributing to the Site's leachate volumes.</p> <p>Leachate recirculation onto landfill surfaces has occurred, however the use of finer spray outlets failed due to nozzle blockages.</p>	

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input checked="" type="checkbox"/>	Current licence number:	L9159/2018/1	
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input type="checkbox"/>	Current licence number:		
		Relevant works approval number:	N/A	<input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:	None	<input type="checkbox"/>
Date application received	26 November 2020			
Applicant and Premises details				
Applicant name/s (full legal name/s)	City of Cockburn			
Premises name	Henderson Waste Recovery Park			
Premises location	920 Rockingham Road Wattleup WA 6166			
Local Government Authority	City of Cockburn			
Application documents				
HPCM file reference number:	DER2018/001433~9			
Key application documents (additional to application form):	Leachate Management Plant Apr 20 Landfill closure management plan Rev 2 July 16 Landfill capping plan March 2013 HWRP Landfill and recycling operations procedure manual Oct 2013 Henderson Landfill gas management plan Final V2 March 2016 CRRP Consultation letter Dec 19 HHW Henderson 2019-20 Annual report July 2020 Asbestos Management Plan Final V2 June 2015 Aerial HWRP Site Plan – Nov 20			
Scope of application/assessment				

Summary of proposed activities or changes to existing operations.	Renewal of existing Licence – no changes to current Premises are proposed
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Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity
Category 61: Liquid waste facility	120 tonnes per annual period	N/A
Category 62: Solid waste depot	50,000 tonnes per annual period	N/A
Category 63: Class I Inert landfill site	15,000 tonnes per annual period	N/A
Category 64: Class II or III putrescible landfill	200,000 tonnes per annual period	N/A

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input checked="" type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Approval: Expiry date: Application Form notes ongoing discussions with Development WA on matching site levels in Latitude 32 – expected Jan 2021
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CPS No: CPS8766-1
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.

Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: Licence/permit No: Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Name: Cockburn Groundwater Area Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: Kwinana Peel
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Environmental Protection (Controlled Waste) Regulations 2004</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999 Kwinana EPP area
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Classification: possibly contaminated – investigation required (PC–IR) Date of classification: 1 June 2011