



## Application for Licence

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

---

<b>Licence Number</b>	L9238/2020/1
<b>Applicant</b>	Southern Metropolitan Regional Council
<b>File Number</b>	DER2020/000118
<b>Premises</b>	RRRC Materials Recovery Facility 350 Bannister Road CANNING VALE WA 6155  Legal description - Part Lot 85 on Plan 2903 Certificate of Title Volume 1220 Folio 158 As defined by the coordinates in Schedule 1 of the Licence
<b>Date of Report</b>	27 November 2020
<b>Status of Report</b>	Final

# Table of Contents

<b>1. Purpose and scope of assessment</b>	<b>5</b>
1.1 Application details	5
<b>2. Background</b>	<b>6</b>
<b>3. Overview of existing Premises</b>	<b>7</b>
3.1 Operational aspects	7
3.2 Infrastructure	9
3.3 Exclusions to the Premises	12
<b>4. Legislative context</b>	<b>14</b>
4.1 Part IV of the EP Act	15
4.2 Contaminated sites	15
<b>5. Emission sources, receptors and pathways</b>	<b>15</b>
5.1 Emissions	15
5.2 Environmental Siting	16
5.2.1 Potential receptors and environmental aspects	16
5.2.2 Geology, hydrogeology and hydrology	18
5.3 Pathways	19
5.3.1 Discharges to air	19
5.3.2 Discharge to ground	21
5.3.3 Vectors	22
5.4 Applicant controls	22
<b>6. Risk assessment</b>	<b>25</b>
6.1 Risk assessment – operation	26
<b>7. Consultation</b>	<b>29</b>
<b>8. Conclusion</b>	<b>30</b>
<b>Attachment 1: Issued Licence L9238/2020/1</b>	<b>33</b>
Table 1: Definitions	3
Table 2: Documents and information submitted during the assessment process	5
Table 3: Prescribed Premises Categories in the Existing Licence	6
Table 4: Category 62 infrastructure	9
Table 5: Fire management and mitigation infrastructure	10
Table 6: Relevant approvals and tenure	15
Table 7: Distance to receptors	16
Table 8: Soil, groundwater and water resources	18
Table 9: Summary of emissions and applicant controls	22
Table 10: Identification of emissions, pathway and receptors during operation	26

Table 11: Summary of consultation .....	29
Figure 1: Processing flow chart .....	8
Figure 2: Operational layout.....	12
Figure 3: Premises stormwater drains and associated compensations basins. ....	13
Figure 4: The shared RRRC compensation basins and monitoring bores. ....	14
Figure 5: Proximity of industrial/commercial and residential receptors to the SMRC MRF .....	17
Figure 6: The Inferred groundwater contamination and groundwater flow across the RRRC premises .....	19
Figure 7: The 9am and 3pm average annual wind roses for Jandakot airport .....	20

## Definitions of terms and acronyms

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

**Table 1: Definitions**

Term	Definition
AS1670.1:2018	means <i>Australian Standard 1670.1:2018 Fire detection, warning, control and intercom systems - System design, installation and commissioning, Part 1: Fire.</i>
AS1905.1-2005	means <i>Australian Standard 1905.1-2005 Components for the protection of openings in fire-resistant walls, Part 1: Fire-resistant doorsets.</i>
AS2118.1:2017	means <i>Australian Standard 2118.1:2017 Automatic fire sprinkler systems, Part 1: General systems.</i>
AS2304:2019	means <i>Australian Standard 2304:2019 Water storage tanks for fire protection systems.</i>
AS2419.1:2017	means <i>Australian Standard 2419.1:2017 Fire hydrant installations, Part 1: System design, installation and commissioning.</i>
AS2941-2013	means <i>Australian Standard 2941-2013 Fixed fire protection installations - Pumpset systems.</i>
AS3700-2001	means <i>Australian Standard 3700-2001 Masonry Structures.</i>
AS3745-2010	means <i>Australian Standard 3745-2010 Planning for emergencies in facilities.</i>
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations.
CS Act	<i>Contaminated Sites Act 2003 (WA).</i>
Decision Report	refers to this document.
Delegated Officer	an officer under section 20 of the EP Act.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of the <i>Environmental Protection Act 1986</i> along with other legislation.
EPA	Environmental Protection Authority.

EP Act	<i>Environmental Protection Act 1986 (WA).</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA).</i>
L <sub>A10</sub>	has the same meaning given to that term under the Noise Regulations.
L <sub>Amax</sub>	has the same meaning given to that term under the Noise Regulations.
m <sup>3</sup>	cubic metres.
Minister	the Minister responsible for the EP Act and associated regulations.
MRF	Materials Recycling Facility.
MS	Ministerial Statement.
NEPM	National Environmental Protection Measure.
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (WA).</i>
Occupier	has the same meaning given to that term under the EP Act.
PFAS	per and polyfluoroalkyl substances.
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.
Primary Activities	as defined in Schedule 2 of the Revised Licence.
Review	this Licence review.
Risk Event	As described in <i>Guidance Statement: Risk Assessment</i> .
RRRC	Regional Resource Recovery Centre (comprising the WCF and the Premises).
SMRC	Southern Metropolitan Regional Council.
WCF	Waste Composting Facility activities operated under L7799/2001/8.

## 1. Purpose and scope of assessment

In response to an increase in fires at Materials Recycling Facilities (MRFs) across Western Australia, the Department of Water and Environmental Regulation (DWER) reviewed the operations of all MRFs within Western Australia that sort or process large quantities of combustible waste. The aim of this review was to assess the current fire risk associated with those premises and to identify those premises that should be regulated under Part V of the *Environmental Protection Act 1986* (EP Act).

The MRF located within the Southern Metropolitan Regional Council (SMRC) Regional Resource Recovery Centre (RRRC) has been operational since 2005 and was destroyed and rebuilt following an infrastructure fire in 2009, with operations recommencing in 2012. Following an inspection undertaken by DWER on 7 February 2020, the activities carried out at the site were deemed to fall within the definition of a prescribed premises, namely for *Category 62 – Solid waste depot* of Schedule 1 of the *Environmental Protection Regulations 1987*.

Subsequently, on 3 March 2020, SMRC (the Applicant) submitted an application under Part V of the EP Act to Licence the existing RRRC Materials Recovery Facility (the Premises). The application did not include any proposed works or material changes to the site as the premises was constructed in 2012. This Decision Report outlines the risk assessment of emissions and discharges to the environment during operation of the existing premises and details the Delegated Officers determination of the Application in accordance with DWER's Regulatory Framework.

### 1.1 Application details

Table 2 lists the documents submitted during the assessment process.

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

Document/information description	Date received	DWER Document reference number
Application Form and associated supporting information including: <ul style="list-style-type: none"> <li>Regional Resource Recovery Centre - Materials Recycling Facility Licence Application.</li> <li>Local Government Development Approvals</li> </ul>	3 March 2020  28 October 2020	DWER259493  A1948170
Additional supporting information – odour: <ul style="list-style-type: none"> <li>Field Based Ambient Odour Intensity reports for January 2019 - February 2020 inclusive.</li> </ul>	3 March 2020	A1878844, A1878846, A1878850, A1878851, A1878852, A1878854, A1878855, A1878856, A1878857, A1878858, A1878859, A1878861, A1878862, A1878863
Additional supporting information – noise: <ul style="list-style-type: none"> <li>MRF Noise Modelling.</li> <li>MRF Noise Management Plan (Revised).</li> <li>RRRC - Noise Monitoring 2020 Morning.</li> <li>RRRC – Noise Monitoring 2020 Afternoon.</li> <li>SMRC-RRRC Night-time Monitoring Assessment</li> <li>SMRC-RRRC Ambient Noise Level Monitoring</li> </ul>	16 April 2020 28 October 2020 16 April 2020 16 April 2020 28 October 2020 28 October 2020	A1887834 A1948172 A1887836 A1887835 A1948176 A1948175

<p>Additional supporting information – fire:</p> <ul style="list-style-type: none"> <li>Regional Resource Recovery Centre Fire and Emergency Response Plan (December 2019).</li> <li>Fire sprinkler system compliance certification.</li> <li>As constructed Fire sprinkler system maps.</li> <li>As constructed Fire sprinkler system block plan.</li> <li>AS constructed Fire sprinkler system Hydraulic isometric.</li> <li>Fire Sprinkler Map</li> <li>Fire Hydrant Map</li> </ul>	<p>3 March 2020 3 March 2020 3 March 2020 3 March 2020 3 March 2020</p> <p>28 October 2020 28 October 2020</p>	<p>A1902661 A1880724 A1880725 A1880727 A1880726</p> <p>A1948168 A1948167</p>
Additional supporting information - Pests and Vermin.	12 June 2020	A1902926
<p>Additional Information – water management:</p> <ul style="list-style-type: none"> <li>Material Recover Facility Stormwater Management Brief.</li> <li>2019 May Groundwater Monitoring Report.</li> <li>2019 September-October Groundwater Monitoring Report.</li> <li>MRF Stormwater Management Brief (undated).</li> </ul>	3 March 2020	<p>A1883037</p> <p>A1878869 A1878868</p> <p>A1883037</p>
<p>Additional information – contaminated sites:</p> <ul style="list-style-type: none"> <li>Southern Metropolitan Regional Council Baseline Site Assessment (Coffey April ,2019a).</li> </ul>	3 March 2020	A1878864

## 2. Background

The Applicant is a government authority comprised of four member councils: East Fremantle, Melville, Fremantle, Kwinana, and provides municipal and kerbside waste collection services for residents and commercial operators, which is then processed at the RRRC. The RRRC is located in Canning Vale, within the City of Canning over three cadastral boundaries: Part of Lot 77, Part of Lot 78 and Part of Lot 85 Bannister Road. Part of Lots 77 and 78 contain a Waste Composting Facility (WCF) for the processing of household organic waste and green waste. The WCF has operated since 2002 and is regulated under a separate Part V EP Act Licence (L7799/2001/8). Part of Lot 85 contains the Premises, which processes recyclable solid wastes, and is the subject of this assessment.

The waste materials accepted at the Premises become marketable and saleable products following sorting and processing at the Premises. On this basis, the Premises is considered prescribed and the activities undertaken on site are subject to regulation in accordance with *Category 62 – Solid waste depot*. The solid wastes received, treated and stored at the site consist of recyclable materials that are primarily collected via commercial and municipal yellow top waste collection bins. The Applicant estimates an annualised throughput of 75,000 tonnes at the time of the application and is proposing to increase throughput up to a maximum of 120,000 tonnes per annum.

Table 3 lists the prescribed premises categories that have been applied for.

**Table 3: Prescribed Premises Categories in the Existing Licence**

Classification of Premises	Description	Approved Premises production or design capacity or throughput
Category 62	Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or re-use	120,000 tonnes per annum

### 3. Overview of existing Premises

The treatment and storage of solid wastes occurs entirely within two fully enclosed buildings located within the southern portion of the Premises boundary. Comingled recyclable materials are delivered to the site by waste contractor vehicles and emptied on a designated waste receival floor area within the main processing building. On the tipping floor the piles of waste are manually pre-sorted prior to processing to ensure the waste received meets the waste acceptance criteria of the site (paper, plastics, cardboard, glass, aluminum and steel cans). This process includes identification and removal of non-conforming materials including hazardous materials, such as batteries, furniture, scrap steel, gas canisters and medical wastes. These non-conforming materials are segregated and stored in designated caged areas or bins prior to being transported to other waste disposal and processing facilities such as landfills and hazardous waste storage/treatment facilities.

The conforming materials are then moved to the processing floor area and added to a hopper and a series of conveyors with rotating discs and screens that mechanically sort the materials into paper and cardboard, aluminum, plastics and glass on the basis of bulk density. The conveyors also pass the materials through several sorting cabins which house staff that manually remove any remaining non-conforming wastes from the separated material streams prior to being baled according to material type, and stored in the dispatch area. The exception to this is the glass, which once separated is crushed and screened and stored in one of two concrete bunkers along the western side of the shed, prior to transport offsite. The processing of recyclable materials is depicted diagrammatically in Figure 1.

The baled products are bound with wire and stored on site within designated product storage areas within the main processing shed, or in a second designated storage shed within the Premises boundary, pending sale. The Premises is not permitted to store any recyclable materials outside of the two main sheds within the Premises boundary according to the planning approvals for the site (as detailed in Section 4). Prior to the sheds reaching capacity, the product is transported off site. Some of the product is sold locally, however it is predominantly freighted to the Port of Fremantle, where it is shipped to processing facilities outside of Western Australia.

#### 3.1 Operational aspects

The Applicant currently processes approximately 75,000 tonnes of recyclable materials per annum and is proposing to increase production by 45,000 tonnes per annum to a maximum of 120,000 tonnes per annum. There is no proposal to expand the footprint of the Premises or to change or alter any of the existing processing equipment at the Premises. It is, however, proposed to extend the operating hours of the Premises.

The Premises currently operates two shifts between:

- Monday to Saturday 6am to 2pm; and 2pm to 10pm.

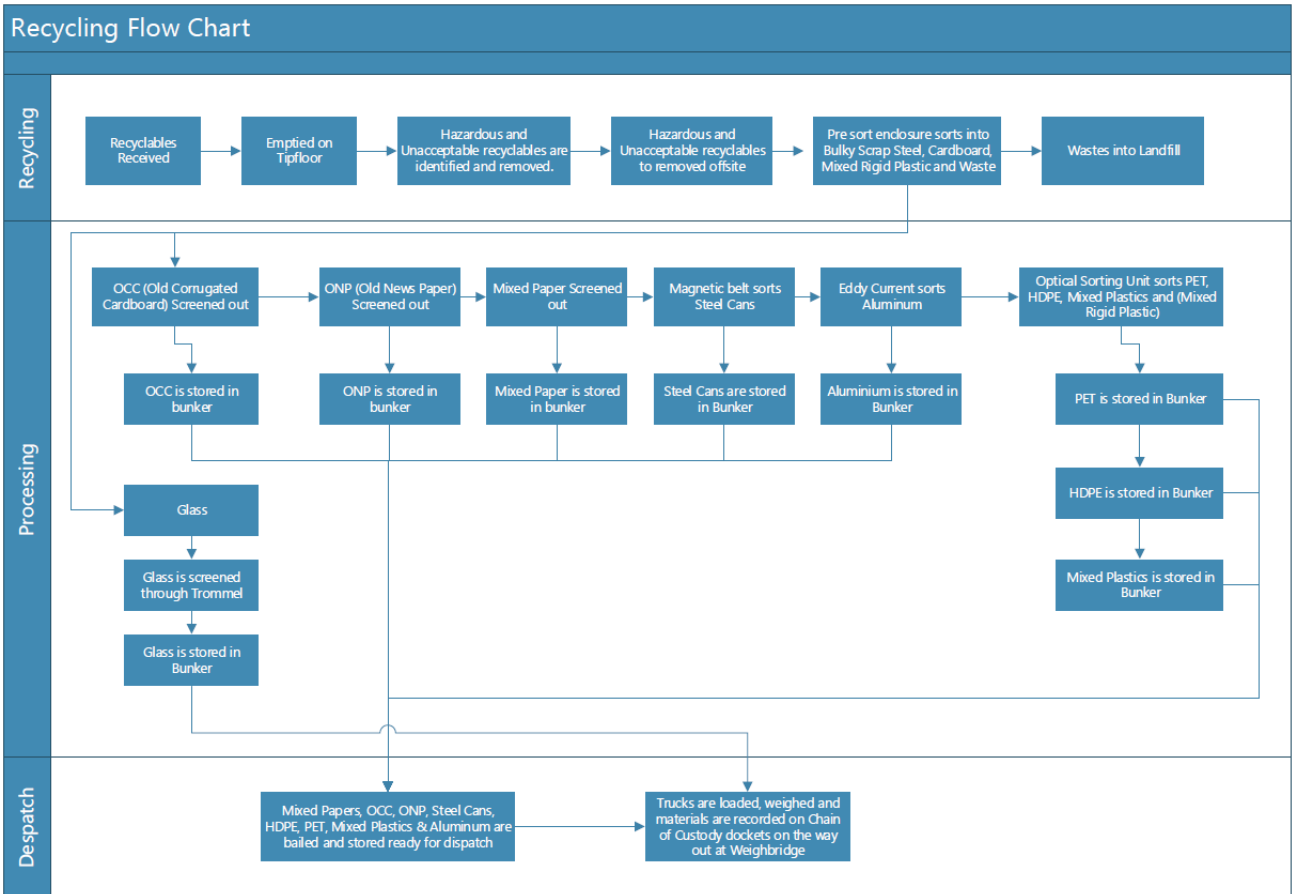
The Premises proposed to alter operating hours to:

- Monday to Saturday from 6am to 12:00am; and
- Sunday from 6am to 6pm.

The Applicant has advised the net increase in waste materials processed at the facility over the annual period will not cause an increase in materials stored (unsorted or baled) at the premises at any one time. Material inflow and outflow at the premises will occur at a faster rate, over extended processing times. This will result in increases in traffic movement to and from the premises, and a corresponding increase in noise emissions from delivery/dispatch vehicles and processing equipment.

An extension to operating hours been granted in accordance with the *Planning and Development Act 2005 (WA)* (City of Canning, 2020).





**Figure 1: Processing flow chart**

Source: Application supporting documentation

## 3.2 Infrastructure

The Premises infrastructure, as it relates to Category 62 activities, is detailed in Table 4 and Table 5.

Table 4 lists infrastructure associated with the prescribed premises category and Table 5 relates specifically to the fire management and mitigation infrastructure.

**Table 4: Category 62 infrastructure**

Site infrastructure and equipment	Operational requirement	Infrastructure location
Weighbridge	To accurately measure the weight in kilograms of each load arriving, leaving or rejected from the premises.	Site Plan Reference as labelled on Figures 2, 3 and 6 in Schedule 1 of the Licence (Attachment 1)
Waste Reveal	Waste reveal area and pre-sort floor: <ul style="list-style-type: none"> <li>enclosed undercover area with steel plate and hard topped concrete floor (approximate maximum reveals capacity - 400 tonnes).</li> <li>concrete tilt up walls 5m.</li> <li>1 x front end loader.</li> </ul>	Site Plan Reference as labelled on Figure 3 in Schedule 1 of the Licence (Attachment 1)
Plant Processing	Processing floor: <ul style="list-style-type: none"> <li>enclosed undercover area with hard topped concrete floors.</li> <li>a conveyor belt system consisting of 60x belt conveyors; 6 x chain conveyors.</li> <li>separators including 5 x product sorting screens; 2 x magnet belts, 3 x optic sorters ( and 3 x dedicated belt conveyors and 1 x eddy current machine with a dedicated belt conveyor.</li> <li>1 x plastic bottle perforator.</li> <li>2 x compactors.</li> <li>1 x air compressor with air dryer and receiver vessel.</li> <li>2 x hydraulic balers with automatic shut offs (1 x Godswill Baler and 1 x Excel Baler).</li> <li>4 x manual sorting cabins.</li> </ul>	Site Plan Reference as labelled on Figure 3 in Schedule 1 of the Licence (Attachment 1)
Internal Storage Area and dispatch Glass bunkers	Finished product area: <ul style="list-style-type: none"> <li>bale storage and dispatch area- separated by 11.68 m concrete wall.</li> <li>contained within undercover hard topped concrete floor area.</li> <li>2 x concrete Glass product storage areas with concrete push walls to 5 m.</li> <li>2 x dispatch docks for freight.</li> </ul>	Site Plan Reference as labelled on Figure 3 in Schedule 1 of the Licence (Attachment 1)
External Bale Storage	Separate bale storage building: <ul style="list-style-type: none"> <li>1 x 11.68 m high x 30.5 m length and 20.5 m wide</li> </ul>	Site Plan Reference as labelled on Figures 3 and 7 in Schedule 1 of the

Site infrastructure and equipment	Operational requirement	Infrastructure location
	<p>with a total area of 651 m<sup>2</sup>.</p> <ul style="list-style-type: none"> <li>constructed with a hard topped concrete floor</li> <li>1 x dispatch dock for freight.</li> </ul>	Licence (Attachment 1)
Metal bins	Various mobile skip bins for scrap metal, residual and general waste.	Site Plan Reference as labelled on Figure 3 in Schedule 1 of the Licence (Attachment 1)
Non-conforming waste	<p>Non-conforming waste storage areas pending off-site disposal (hazardous materials storage):</p> <ul style="list-style-type: none"> <li>lockable cages for gas bottles, fire extinguishers, Helium bottles, soda stream bottles and CO<sup>2</sup> bottles.</li> <li>battery storage tubs.</li> <li>1000L bunded oil collection container for any oil containers received.</li> </ul>	Site Plan Reference as labelled on Figure 3 in Schedule 1 of the Licence (Attachment 1)
Motor Control Room	<ul style="list-style-type: none"> <li>Motor control room which controls electrical supply to the plant and electrical boards.</li> <li>Dedicated NOVEC fire suppression system that floods the electrical equipment in the control room with a gas that stops combustion</li> </ul>	Site Plan Reference as labelled on Figure 3 in Schedule 1 of the Licence (Attachment 1)
Stormwater Collection system including soak wells, grates, drainage pipes, spoon drains, compensation basins, bunds and diversion channels	<p>Stormwater collection and diversion system:</p> <ul style="list-style-type: none"> <li>concrete bunds surrounding operational hardstand areas to convey stormwater to onsite drains.</li> <li>drainage systems including stormwater sumps on the concrete apron external to the building to convey stormwater to the onsite compensation basin.</li> <li>offsite earthen compensation basin with estimated capacity of 512kL.</li> </ul>	Site Plan Reference as labelled on Figures 3, 4 and 5 in Schedule 1 of the Licence (Attachment 1)
Forklift	<p>Forklifts:</p> <ul style="list-style-type: none"> <li>to be fitted with designated broom attachments prior to use for premises sweeping purposes.</li> <li>To be fitted with broadband tonal reversing alarms or beepers</li> </ul>	NA

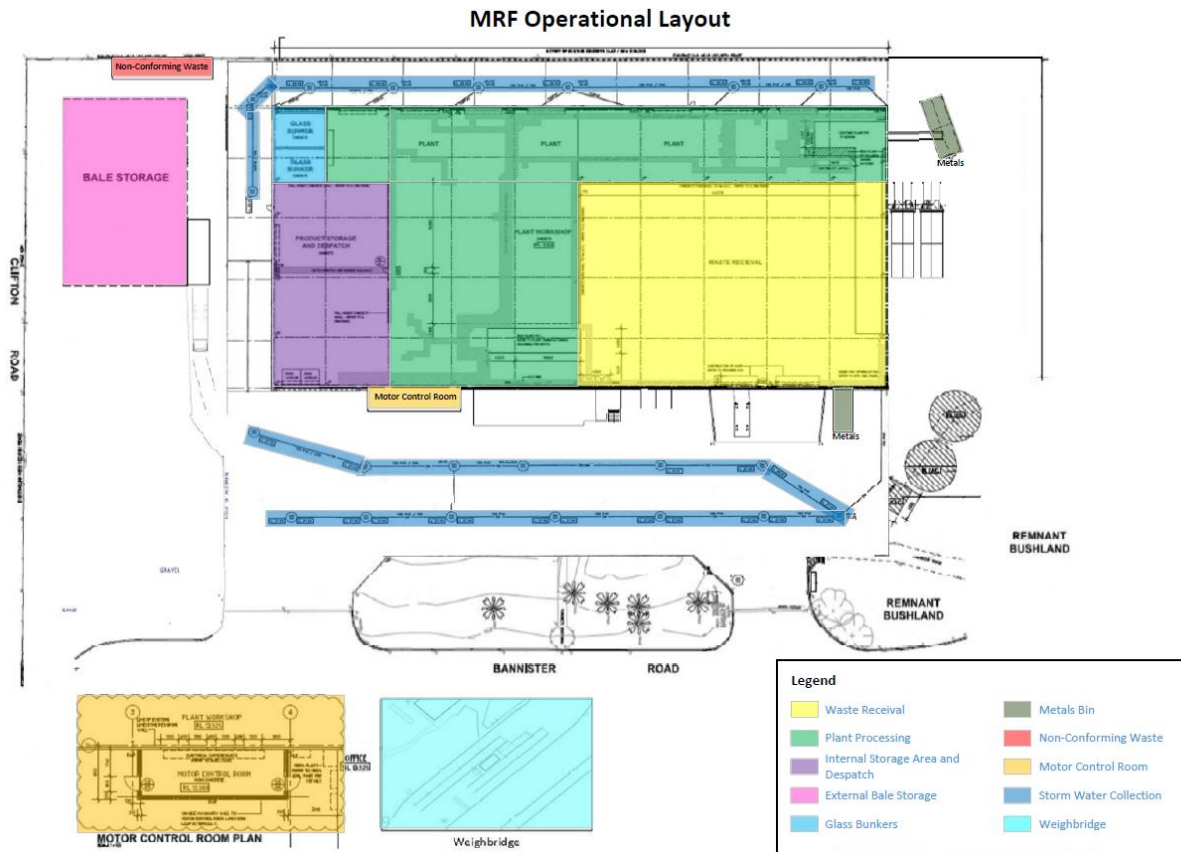
**Table 5: Fire management and mitigation infrastructure**

Site infrastructure and equipment	Operational requirement	Infrastructure location
Fire sprinkler system	Constructed in accordance with extra high hazard rating and in accordance with the standards AS 2118.1.2017; AS2941-2013 and National Construction Code Series 2014 Building Code of Australia and /or as updated from time to time	Site Plan Reference as labelled on Figure 1 in Schedule 1 of the Licence (Attachment 1)
Fire pump set systems	Constructed in accordance with AS 2941-2013, AS 2419.1.2017 and National Construction Code of	Site Plan Reference as labelled on Figure 7a and Figure 7b in Schedule 1

Site infrastructure and equipment	Operational requirement	Infrastructure location
	Australia. Includes: <ul style="list-style-type: none"> <li>• 1 x hydrant/Sprinkler Booster - near booster pump shed Hydrant/Sprinkler Booster system (covers both hydrants and internal sprinklers).</li> <li>• 1 x hydrant Booster – on southern side of MRF building on island between roads.</li> <li>• 14 x hose Reels Internal.</li> <li>• 2 x hose Reels in Bale Shed.</li> </ul>	of the Licence (Attachment 1)
Water tanks	Constructed in accordance with AS2304:2019 and designed to meet extra high hazard installation requirements. That is, operate both hydrant and sprinkler system to deliver 3243 L/min @ 238kPA 100% of duty for most advantaged location and 4107L/min at 489kPA 100% duty at most disadvantaged location. Includes: <ul style="list-style-type: none"> <li>• 2 x Fire water tanks with capacity of in excess of 265,000L each (total in excess of 530,000L)</li> </ul> Duty duration requirement is 90 minutes.	Site Plan Reference as labelled on Figure 7a and Figure 7b in Schedule 1 of the Licence (Attachment 1)
Hydrants	Installed in accordance with AS 2419.1.2017 with a minimum flow of 1200L/min. Includes: <ul style="list-style-type: none"> <li>• 7 x Double outlet fire hydrants.</li> <li>• 1 x Hydrant/Sprinkler Booster - near booster pump shed.</li> <li>• 1 x Hydrant Booster – on southern side of MRF building on island between roads.</li> </ul>	NA
Fire detection System (fire and smoke)	Constructed in accordance with AS 1670.1.2004. Includes: <ul style="list-style-type: none"> <li>• Fully automated fire alarm system with infra-red CCTV and triple spectrum optical fire detectors located at specified locations throughout the MRF-fitted with an alarm zone lock plan.</li> <li>• Detection systems connected to live monitored system.</li> <li>• Select conveyors fitted with firewire which melts upon heat detection and triggers the alarm</li> </ul> Multiple manual call points (activation points) around the facility	Site Plan Reference as labelled on Figure 8 in Schedule 1 of the Licence (Attachment 1)
Diesel pumps	2 x diesel pumps to support to allow fire hydrant and sprinkler system to operate during times of mains power loss or during hydrant/sprinkler demand (i.e. during a fire event)	NA
Designated fire evacuation muster point.	In place with secondary locations available.	Site Plan Reference as labelled on Figure 6 in Schedule 1 of the Licence (Attachment 1)
Fire doors	Within the premise's buildings (built in accordance with AS 1905.1-2005)	NA
Server Control	Includes:	Site Plan Reference as

Site infrastructure and equipment	Operational requirement	Infrastructure location
Cabinet	<ul style="list-style-type: none"> <li>Operational control of each conveyor and sorting equipment within the MRF</li> </ul>	labelled on Figure 3 in Schedule 1 of the Licence (Attachment 1)
Portable Fire extinguishers	Multiple portable fire extinguishers located throughout the premises (at each hydraulic motor/pump for example)-	NA

The operational layout of the premises is illustrated in Figure 2 below.



**Figure 2: Operational layout**

Source: SMRC Licence Application email (DWER Document Reference: A1887893).

### 3.3 Exclusions to the Premises

There are three main compensation basins that receive stormwater runoff from the Premises and would likely receive fire run off water and foam in the event of a large fire at the Premises. Each of these lie outside of the Premises boundary, as depicted in Figure 4. There are two earthen compensation basins immediately south and east of the Premises as highlighted in blue in Figure 3 below. They receive stormwater through soak wells (shown as blue dots) and a below ground drainage network conveys the stormwater to these compensation basins. Both compensation basins are within the boundary of the WCF operations (under control by SMRC).

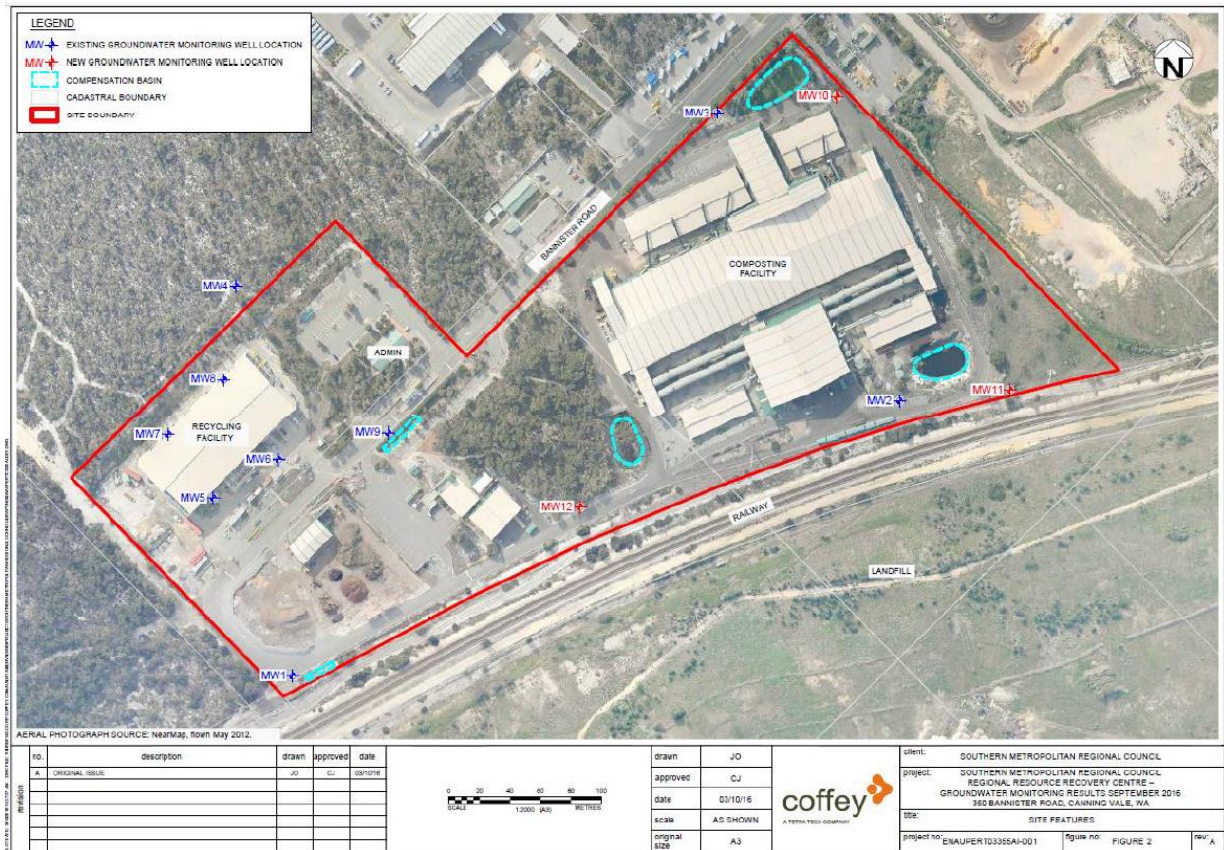




**Figure 3: Premises stormwater drains and associated compensations basins.**

*Source: Application supporting documentation Application supporting documentation - SMRC-RRRC Baseline Conceptual Site Model from: Southern Metropolitan Regional Council Baseline Environmental Site Assessment (Coffey, 2019a)*

There are three additional compensation basins which lie within the remnant native vegetation and along the southern perimeter boundary of the adjacent WCF as shown by Figure 4 below. This compensation basin would receive overflow from the two compensation basins shown in Figure 3 above in the event of extreme rainfall or a fire event.



**Figure 4: The shared RRRC compensation basins and monitoring bores.**

Source: Figure 4 from Application supporting documentation -Southern Metropolitan Regional Council Regional Resource Recovery Centre WCF Licence Amendment Application L7799/2001 (SMRC, 2020a)

## 4. Legislative context

The primary authorisation for operation of the premises are provided by the planning development approval granted by the State Administrative Tribunal (SAT) (SAT, DR 489 2009). The SAT decision is restrictive and limits the amount of materials that can be received, processed or stored at the site (before or after processing) at any one time via:

- restriction to operating hours (Order 2);
- limiting the areas permitted to be used for materials storage to within the buildings or sealed waste containers (Order 7); and
- prescribing fire risk mitigation considerations which limit the amount of flammable materials stored at the site (Order 13).

The current increase in operating throughput was approved by the City of Canning via an amendment to Order 2 of SAT: DR 489 2009, which also extends the operating hours from 6am until 10pm Monday to Saturday; from 6am to Midnight Monday to Saturday and 6am until 6pm Sunday (City of Canning, 2020).



Table 6 summarises approvals relevant to the assessment.

**Table 6: Relevant approvals and tenure**

Legislation	Number	Subsidiary	Approval
<i>Planning and Development Act 2005 (WA)</i>	DR 489 2009	<i>Southern Metropolitan Regional Council</i>	Granted under by the State Administrative Tribunal on 2 December 2012  Amended by the City of Canning on 21 April 2020 to allow for extended operating hours.
<i>Part IV of the EP Act (WA)</i>	<i>Statement Number 517 Bulletin 938</i>		Amended on 2 October 2020 to allow up to 120,000 tonnes per annum of co-mingled recyclables to be received at the premises, up to 500 tonnes pf co-mingled recyclables to be received per day and an extension to the prescribed operating hours.
<i>Contaminated Sites Act 2003</i>	<i>Site ID 27530</i>		Classification: Remediated for restricted use

#### 4.1 Part IV of the EP Act

The construction and operation of the RRRC was authorised following approval granted on 3 July 1999, under Ministerial Statement (MS) 517. The Applicant submitted an application to amend MS 517 in accordance Section 45C of the EP Act on 13 May 2020 to increase the throughput from 30,000 tonnes per annum (and up to 115 tonnes of co-mingled recyclables per day) to a maximum of 120,000 tonnes per annum (SMRC, 2020). This amendment to MS 517 was granted on 2 October 2020. It allows for up to 500 tonnes of waste to be accepted at the premises each day (an increase of 385 tonnes per day) and allows for operating hours to be extended from Monday to Saturday 0700 to 1900, to Monday to Saturday 0600 to midnight and Sunday 0600 to 1800.

#### 4.2 Contaminated sites

The Premises is classified under the *Contaminated Sites Act 2003* as 'Remediated for restricted use'. Following the infrastructure fire at the Premises on 1 June 2009, ash, fire water and debris entered the soak wells, compensation basins and drains in the vicinity of the fire (DWER, 2020). Limited investigations were conducted but identified a number of chemicals of concern, including dioxins and a range of metals and hydrocarbons within the Premises. The site was cleaned up and then reassessed. The site was classified by the Department as 'remediated for restricted use' on 13 October 2010 (DWER, 2020). Groundwater is not abstracted at the site and regular groundwater monitoring is undertaken by the Applicant for the WCF. See section 5.2.2 for further information on the soil and water characteristics within the Premises.

### 5. Emission sources, receptors and pathways

#### 5.1 Emissions

The potential for emissions to impact on sensitive receptors has been assessed in accordance with the Department's Risk Framework. The key emissions during premises operation which have been considered in this report are dust, noise, odour and potentially contaminated



stormwater from day to day operations and on site vehicle movements. Air toxins and particulate emissions and contaminated fire water runoff may also occur during a fire event from the Premises.

The Applicant has proposed measures to assist in controlling these emissions, where necessary. The control measures are outlined in Section 5.4 and have been considered when undertaking the risk assessment detailed in Section 6.

## 5.2 Environmental Siting

### 5.2.1 Potential receptors and environmental aspects

Risk is assessed as a combination of emission sources, the proximity and sensitivity of receptors to those emission sources and any pathways that can allow the emission to reach and potentially harm the receptor. Table 7 below provides a summary of human and environmental receptors in proximity to the Premises which have a potential to be impacted from site activities, and the risk assessment in Section 6 considers these receptors in the context of emissions and potential pathways.

**Table 7: Distance to receptors**

<b>Human receptors</b>	<b>Distance from activity or prescribed premises</b>
Residential dwellings	300 m NW of Premises in Blaize Court Leeming.
Commercial/Industrial premises	The Premises is immediately north and adjacent to an existing railway line proposed to be used for Metronet railway line (Thornlie to Cockburn link) and a closed landfill. 200 m NE is the City of Canning dog pound. 300 m NE transport company. 430 m NE and 450 m E lies a water utilities business (Water Corporation) and a soil supply garden business respectively. 450 m E is a soils supply business. 600 m NW is a medical centre. Refer to Figure 5.
<b>Environmental receptors</b>	<b>Distance from activity / prescribed premises</b>
Bush Forever Site (ID 196)- Ken Hurst Park Metropolitan Regional Scheme 1082/33	The Premises is within 10 m of high conservation value Environmentally Sensitive Area (Bush forever site numbers 245 and 388).
Threatened Ecological Communities and Priority Ecological Communities	All the bushland surrounding the Premises is classified as Threatened Ecological Community (Banksia Woodland of the Swan Coastal Plain) both within on Lot 85, and on the adjacent bush reserve.

Environmental aspects	Distance from activity / prescribed premises
<p>Proclaimed groundwater area <i>Rights in Water and Irrigation Act 1914</i></p>	<p>The Premises falls within the proclaimed Perth Groundwater Area, within the City of Canning superficial aquifer.</p> <p>Depth to groundwater is approximately 6.8 m.</p> <p>Salinity is &lt;250mg/L.</p> <p>The primary beneficial use of groundwater within the general vicinity is for residential and commercial gardens and public open space. The nearest groundwater abstraction bore is located on the adjacent WCF premises. Groundwater Licence GWL168323 was granted for humidification and compost manufacturing.</p>



**Figure 5: Proximity of industrial/commercial and residential receptors to the SMRC MRF**

Source: Application supporting documentation - Attachment 2 and 7 RRRRC Premises Boundary and Key Infrastructure (SMRC, 2020)

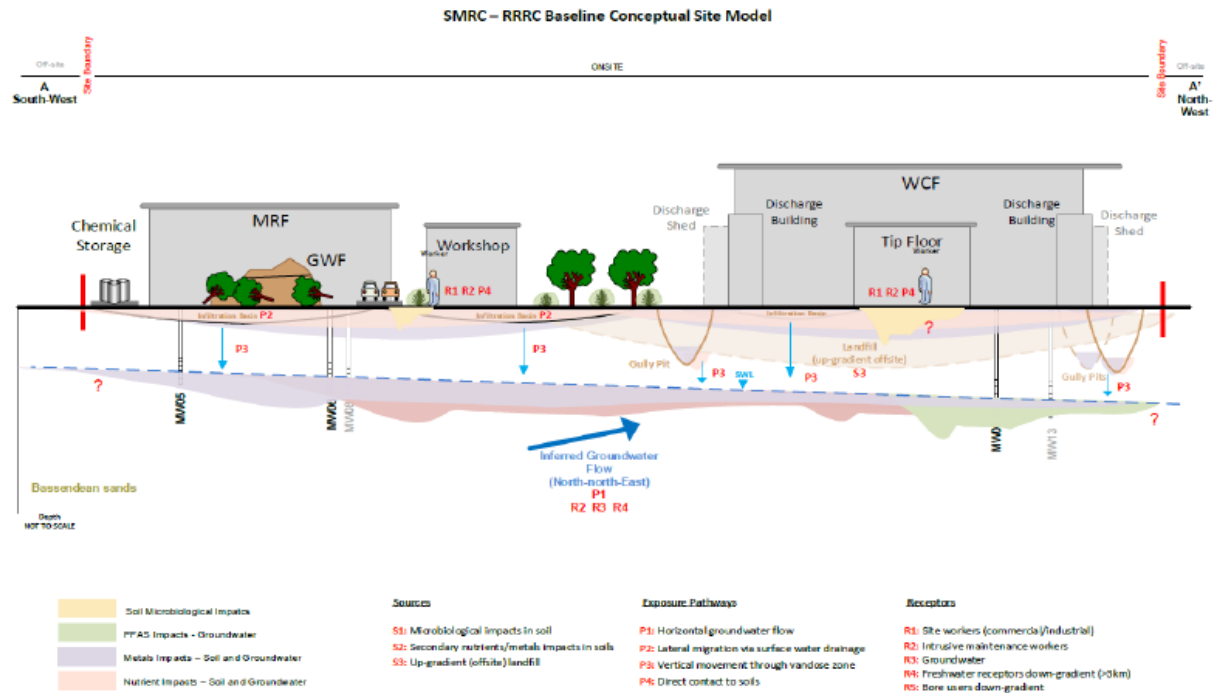
## 5.2.2 Geology, hydrogeology and hydrology

Table 8 below details the soil, groundwater and water resources relevant to this assessment.

**Table 8: Soil, groundwater and water resources**

Soil, Groundwater and water sources	Distance from Premises	Environmental Value
Soil type classification	N/A	<p>The Premises lies on Bassendean sands, quartz sand (dunes) with a moderate to low acid sulphate soil risk (Coffey, 2020).</p> <p>The soils in the area are highly permeable with an average infiltration rate of 9 m/day (MRF Stormwater Management Brief, SMRC undated).</p> <p>Due to the contaminated sites classification of the premises any disturbance to soils within the Premises (due to digging) requires health and safety plan to be developed prior to commencement of works due to the potential of works creating an exposure pathway for potential contaminants within the soil (Coffey, 2020).</p>
City of Canning superficial aquifer	Between 2 and 5 mbgl	<p>The superficial aquifer is considered fresh based on salinity of less 250 mg/L.</p> <p>Groundwater monitoring has been undertaken within the RRRC premises and indicates that groundwater quality has been impacted by the 2009 MRF fire and seepage from the adjacent landfill operations and includes an increase in water levels, an ammonia plume, a suit of metals contaminants (all below health and environmental criteria) (Coffey, 2020). Groundwater contamination relative to groundwater flow is depicted in Figure 6 overleaf.</p> <p>Due to the contaminated sites classification of the site (see section 4.2) groundwater is not permitted to be abstracted at the Premises other than for testing or remediation purposes (Coffey, 2019a).</p> <p>The nearest groundwater abstraction bore is located on the adjacent WCF premises.</p>
Jandakot Public Drinking Water Source Area (PDWSA)	1230 m S	<p>The northern extent of the Jandakot Underground Water Pollution Control Area as gazetted under the <i>Metropolitan Water Supply Sewage and Drainage Act 1909</i> lies 1230 m of the Premises and is used as a PDWSA.</p>

Figure 6 overleaf shows a map of the inferred groundwater direction across the RRRC premises and the location of contaminants relative to infrastructure and groundwater.



**Figure 6: The Inferred groundwater contamination and groundwater flow across the RRRC premises**

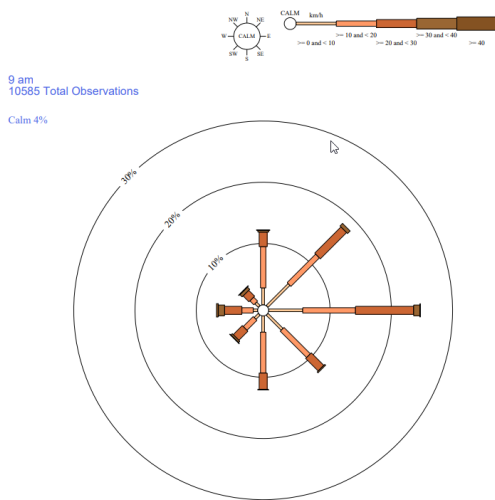
Source: Application supporting documentation - Figure B: SMRC-RRRC Baseline Conceptual Site Model from: Southern Metropolitan Regional Council Baseline Environmental Site Assessment (Coffey, 2019a)

## 5.3 Pathways

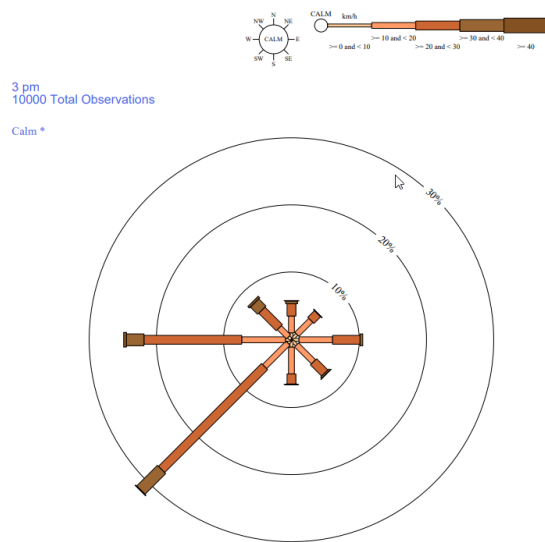
### 5.3.1 Discharges to air

As shown in in Figure 7 below, the annual average of prevailing 9 am wind conditions are east to north easterly and the predominant 3 pm annual average of afternoon wind conditions are west to south westerly at the nearby Jandakot Airport (ID: 009172) weather monitoring station (approximately 1km south west). The sensitive receptors are located in north westerly direction to the premises, separated by dense bushland (as shown in Figure 2) and are positioned such that discharges to air between the prescribed activity and the receptors will be carried away from the sensitive receptors in most instances. Discharges to air include including noise, dust and odour.

### 9am average annual wind rose Jandakot Airport



### 3pm average annual wind rose Jandakot Airport



**Figure 7: The 9am and 3pm average annual wind roses for Jandakot airport**

Source: BOM, 2020

### Noise

Noise is considered the primary emission of concern from the proposed operations as it has the potential to impact on nearby sensitive receptors due to the number of emission point sources (delivery and processing equipment), the proximity of noise sensitive premises (within 300 m) and due to the extension of operating hours to from 2200 hrs to 2400 hrs from Monday to Friday. The application was supported by a predictive emissions modelling study undertaken by the Applicant.

The part of the evening when tolerance of noise levels is less, and where regulatory restrictions are greatest under the *Environmental Protection (Noise) Regulations 2007* (Noise Regulations) is between 2200 hrs and 0700 hrs. The Applicant is proposing to increase operating hours during this period of the day when the assigned noise level criteria of 43.1dB ( $L_{A10}$ ) and 63.1dB ( $L_{Amax}$ ) are the lowest, and when amenity impacts are more likely to occur (when people are sleeping). The propagation of noise from truck and forklifts entering and leaving the premises, including from reversing beepers, and from the operation of processing machinery within the MRF, are the main activities of concern. The conveyance of noise to noise sensitive receptors may be facilitated by prevailing wind and weather conditions, and the topography of the terrain.

The Applicant undertook a predictive noise emissions study as part of the application, as well as day time and night time noise monitoring at the nearest noise sensitive receptors. These reports were assessed by DWER's Environmental Noise Branch (ENB) as reasonable and indicative that the Premises can be managed to comply with the noise levels at all neighboring noise sensitive premises during the day and night, provided the noise management and mitigation measures as proposed are implemented at the facility. The ENB recommended that further noise monitoring be undertaken upon completion of the expansion project to validate the assumed compliance detailed in the noise modelling report.

The Applicant undertook further night-time monitoring subsequent to obtaining, and as requirement of, planning development approval as granted by the City of Canning on 21 April 2020. The monitoring results were submitted to DWER and indicated that the noise from MRF operation was largely masked by traffic noise during the period between 9:30 pm and 12:15 am,



but that reversing alarms were audible for brief periods during the measurement at three of the five assessed receivers. Although the measured results did not exceed the assigned noise levels, the Applicant reported that if the alarm were to persist for more than 90 seconds in any 15 minute period, the noise would potentially exceed the assigned noise levels due to the tonality of the reversing beepers.

In accordance with Reg 7(1)(b)(i) of the Noise Regulations, noise emitted from any premises or public place when received at other premises must be free of tonality. The adjustment of tonality only applies if the tonality cannot be reasonably and practicably removed by techniques other than attenuating the overall level of the noise emission. The applicant has replaced the beepers with broad-band smart alarms or Squawkers for all the site owned operated vehicles, and updated the sites' Noise Management Plan accordingly.

### ***Dust/particulates***

The impacts of airborne fugitive dust from the handling and processing of the recyclable materials and these have the ability to impact on the amenity of nearby human receptors. Dust or particulate emissions may be generated through vehicle movements and tipping, although considered rare as the roads are sealed, the delivery vehicles are covered and the tipping floor is enclosed within a building. Fire smoke which includes particulate and air toxics from the combustion of plastics, paper and potentially hazardous materials derived from non-conforming waste and site infrastructure has the potential to cause impacts to the health and amenity of nearby residential commercial/industrial receptors should a significantly sized fire occur at the premises. This however, is considered rare due to the extensive fire mitigation and management infrastructure and procedures that exist for the Premises.

### ***Odour***

The Applicant submitted monthly odour surveys for the period January 2019 to February 2020 for the RRRC operations as part of the Application. These were conducted as part of the Field Odour Assessment Plan which is a regulatory requirement of Licence L7799/2002/8 for the adjacent WCF premises (Condition 19). The monthly odour assessments indicate that odour emissions during this period were acceptable from the entire RRRC operations. Co-mingled recycling products received on the site will only generate odour if they are contaminated with putrescible materials and should high levels of contamination be encountered this can be addressed directly with the waste collection service. The recyclable materials will remain on the premises for a relatively short duration from receipt to dispatch and regular cleaning of the processing areas will be undertaken to reduce build-up of any odour emitting residues.

It is anticipated that any increase in odour emissions generated from the increase in throughput at the site will be negligible and can be managed to comply with the provisions of the EP Act if the proposed mitigation and management measures are implemented.

## **5.3.2 Discharge to ground**

### ***Litter***

The recyclable materials received and processed at the Premises have the ability to break and become fragmented during tipping, processing and handling. The fragmented particles are easily dispersed through traffic, wind and stormwater movement making them susceptible to being scattered and remain persistent around the premises surrounds. All materials received at the site has the potential to become litter, and plastics litter have the potential to be particularly problematic as they are particularly persistence due to their low propensity to biodegrade and easily spread due to their relatively inert characteristic and light density.

All materials are delivered to the premises within sealed or covered vehicles and the tipping, sorting, handling and storage all occur within sealed building, which limits the potential for littering to occur.

### Contaminated stormwater

The aquifer beneath the premises is shallow and is situated between 2-5 mbgl. Groundwater quality has the potential to be impacted through the infiltration of water soluble contaminants to ground. Contaminated fire water runoff following a fire event, and contaminated storm water runoff following rainfall events can be significant over a short time period and contaminants may enter the unlined compensation basin via the storm water collection system, where they can infiltrate to ground as shown in Figure 3 and Figure 4. The Bassendean soils upon which the Premises is situated are highly permeable and the rate of infiltration is reported as being 9 m per day. The direction of groundwater flow is from south to north/north-east as shown in Figure 6.

The Applicant undertakes biennial groundwater monitoring of the RRRC premises and has observed there is groundwater contamination below the premises likely caused by the seepage of leachate from the adjacent capped landfill site to the south of the premises, notably a nitrate, ammonia and total nitrogen plume that exceeds the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, ANZECC & ARMCANZ Coffey, June 2019). Other contaminants have been observed such as trace metals (including lead, chromium, copper, nickel and manganese) and a range of PFAS (per and polyfluoroalkyl substances) compounds have been detected in the eastern portion of the premises also thought to have been derived from the landfill site (Coffey, 2019). PFAS substances have also been detected beneath the MRF following the 2009 fire (DWER 2020). There is also some evidence that localised mounding of groundwater may be occurring from the additional recharge surrounding the perimeter of the capped landfill.

#### 5.3.3 Vectors

Vermin and pests act as vectors for disease. Vectors are attracted by access to putrescible materials as they act as a food source. The co-mingled recyclables received at the premises may have traces of putrescible materials that attract vectors to the premises. Vector access to the materials received will be limited as they are delivered to the Premises within sealed or covered vehicles and the tipping, sorting, handling and storage all occur within sealed buildings, which limits the potential for exposure to occur.

### 5.4 Applicant controls

The Applicant has proposed the following management controls as part of the application:

**Table 8: Summary of emissions and applicant controls**

Source	Emission (as identified above)	Proposed controls
Vehicle Movement Tipping, and storage and handling input materials Processing, movement, compaction and crushing of materials Storage and dispatch of final product and non-conforming wastes	Dust/Particulates	All trafficable areas are fully sealed. Processing and storage areas within the facility are fully enclosed within a building.
Tipping, and storage and handling input materials	Odour	The recyclable materials may generate odour if they are contaminated with putrescible materials

Source	Emission (as identified above)	Proposed controls
<p>Processing, movement, compaction and crushing of materials</p> <p>Storage and dispatch of final product and non-conforming wastes</p>		<p>and store.</p> <p>Recyclable materials will be remain on the premises for a relative short duration from receipt to despatch.</p> <p>Regular cleaning of the processing areas will occur to reduce the build-up of any odour emitting residues.</p>
<p>Vehicle movements including delivery trucks, front end loader and forklifts, including reversing beepers</p> <p>Tipping, opening and shutting of roller doors</p> <p>Processing and movement of recyclable materials through conveyor belts screens, magnetic belts, sorting, bailing, crushing equipment</p> <p>Movement of final product non-conforming waste containers and items for dispatch.</p>	Noise	<p>All trafficable areas are fully sealed.</p> <p>Processing and storage areas within the facility are fully enclosed within a building.</p> <p>Between 2200 hrs and 0700 hrs activities are restricted to within the building envelope and all doors on the northern side of the building must remain closed.</p> <p>Premises to demonstrate compliance with the Noise Regulations through regular maintenance and inspection of equipment, restricted usage where relevant and annual auditing by a suitably qualified acoustic consultant.</p> <p>All applicant site operated vehicles to be fitted with broadband reversing alarms or beepers.</p> <p>Site has a complaints system to handle manage and address complaints.</p> <p>Reviewed annually to ensure objective are being met.</p>
<p>Vehicle Movement</p> <p>Tipping, and storage and handling input materials</p> <p>Processing, movement, compaction and crushing of materials</p> <p>Storage and dispatch of final product and non-conforming wastes</p>	Discharge to ground -Litter	<p>Receipt, processing and handling of all materials occurs within a sealed building.</p> <p>Any incidental litter that occurs in the area surrounding the premises will be cleaned via manual collection and mechanical sweeping of the trafficable areas occurs on a weekly basis.</p> <p>The stormwater drains contain metal plates to minimise the conveyance of plastics through the stormwater drainage and collection system.</p> <p>The perimeter fencing contains a shade cloth to limit the airborne transmission of littler outside the premises boundary.</p> <p>Site has a complaints system to handle manage and address complaints.</p>
<p>Vehicle Movement</p> <p>Tipping, and storage and handling input materials</p> <p>Processing, movement, compaction and crushing of materials</p> <p>Storage and dispatch of final</p>	Discharge to land – contaminated stormwater	<p>Receipt, processing and handling of all materials occurs within a sealed building.</p> <p>Conforming waste materials received at the facility are not water soluble or liable to cause water contamination.</p> <p>Non-conforming and hazardous materials are received via misadventure are to be removed</p>



Source	Emission (as identified above)	Proposed controls
<p>product and non-conforming wastes</p> <p>Fire event</p>		<p>and house in designated vessels and compounds prior to being removed off site.</p> <p>Trafficable areas surrounding the building envelope are fully sealed, with some areas bunded to divert stormwater towards dedicated drainage infrastructure and the stormwater retention basin.</p>
<p>Tipping, and storage and handling input materials</p> <p>Processing, movement, compaction and crushing of materials</p> <p>Storage and dispatch of final product and non-conforming wastes</p>	<p>Vectors and pathogens</p>	<p>Premises has Pest Management Plan as required by condition 4(b) of SAT approval DR 489 2009 (SMRC, 2020)</p> <p>Site employs a contractor who attends the site quarterly to review the pest management status of the site including inspections, baiting and spraying insecticide as necessary.</p> <p>Complaints of vermin must be recorded on the internal complaints management system within 48 hours.</p> <p>Waste is delivered in in sealed vehicles, and processed and stored within an enclosed building</p> <p>Putrescible wastes are removed as soon as practical, usually at the end of each business day.</p> <p>A clean up of the tipping floor and operational areas occurs daily</p>
<p>Fire event</p>	<p>Dust/Particulates (ash/smoke)</p> <p>Toxic air emissions (burning plastics and machinery)</p> <p>Discharge to land – groundwater contamination (fire water runoff)</p> <p>Odour (smoke/air toxics)</p>	<p>Emission and discharges from a fire event itself are not subject to control as they are an emergency unintended event.</p> <p>Fire prevention and mitigation methods are subject to regulatory control and these include:</p> <ul style="list-style-type: none"> <li>• Passive and active fire, smoke and heat detection and monitoring systems.</li> <li>• Fire sprinkler system, pump set systems (hydrants, booster hose reels), fire water tanks, live monitored system, diesel generators to provide and support energy requirements during a fire event, hand held extinguishers.</li> <li>• Fire warden training drills.</li> <li>• Fire Management Plan for the site which is reviewed annually following a third party audit of the premises infrastructure and procedures by DFES. The Fire Management Plan is developed in accordance with AS 3745-2010.</li> </ul>

## 6. Risk assessment

The identification of the sources, pathways and receptors to determine Risk Events are set out in Table 9 below, consistent with the *Guidance Statement: Risk Assessments*. Risk ratings have been assessed for each key emission source and take into account potential source-pathway-receptor linkages. The mitigation measures / controls proposed by the Applicant have been considered in determining the risk rating. Emissions during operation have been assessed separately to allow clear delineation of activity phases.

The conditions in the issued Licence, as outlined in Table 9, have been determined in accordance with the *Guidance Statement: Setting Conditions*.

## 6.1 Risk assessment – operation

**Table 9: Identification of emissions, pathway and receptors during operation**

Risk Event				Consequence rating <sup>1</sup>	Likelihood rating <sup>1</sup>	Risk <sup>1</sup>	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
<p>Vehicle Movement</p> <p>Tipping, and storage and handling input materials</p> <p>Processing, movement, compaction and crushing of materials</p> <p>Storage and dispatch of final product and non-conforming wastes</p>	<p>Dust</p>	<p>Air/windborne pathway causing impacts to health and amenity of closest human receptors:</p> <p>Closest residential dwellings 300 m north west of the premises.</p>	<p>As described in Section 5.4</p>	Slight	Unlikely	Low	<p>The proposed controls are expected to be sufficient at mitigating dust emissions.</p>	<p>Infrastructure requirements as specified in Condition 5 Table 3.</p>
	<p>Odour</p>	<p>Closest commercial and industrial premises are 200 m NE, 300 m NE, 430 m NE, 450 m E and 600 m NE.</p>	<p>As described in Section 5.4</p>				<p>The proposed controls are expected to be sufficient at mitigating odour emissions.</p>	
<p>Vehicle movements including delivery trucks, front end loader and forklifts, including reversing beepers</p> <p>Tipping, opening and shutting of roller doors</p> <p>Processing and movement of recyclable materials through conveyor belts screens, magnetic belts, sorting, bailing, crushing equipment</p> <p>Movement of final product non-conforming waste containers and items for dispatch.</p>	<p>Noise</p>	<p>Air/windborne pathway causing impacts to health and amenity of closest human receptors:</p> <p>Closest residential dwellings 300 m north west of the premises.</p> <p>Closest commercial and industrial premises are 200 m NE, 300 m NE, 430 m NE, 450 m E and 600 m NE.</p>	<p>As described in Section 5.4</p>	Moderate	Unlikely	Medium	<p>The Applicant's proposed noise mitigation controls are likely to be sufficient at mitigating and managing noise emissions.</p>	<p>Infrastructure requirements as specified in Condition 5 Table 3.</p> <p>The general provisions of the <i>Environmental Protection (Noise) Regulations 1997</i> apply.</p>

Risk Event				Consequence rating <sup>1</sup>	Likelihood rating <sup>1</sup>	Risk <sup>1</sup>	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Vehicle Movement Tipping, and storage and handling input materials Processing, movement, compaction and crushing of materials Storage and dispatch of final product and non-conforming wastes Fire event	Discharge to ground - Litter	Traffic, air and overland flow of water causing discharge of waste from building compound to ground.	As described in Section 5.4	Slight	Possible	Low	The proposed controls are expected to be sufficient at mitigating litter.	Infrastructure requirements as specified in Condition 5 Table 3.
	Discharge to land – contaminated stormwater	Overland flow of water and infiltration to groundwater	As described in Section 5.4	Slight	Possible	Low	The proposed controls are expected to be sufficient at mitigating contaminated stormwater discharge to land	Infrastructure requirements as specified in Condition 5 Table 3. Condition 7 requires fire water capture and containment and Condition 8 requires the site to notify the CEO of a fire and discharge of fire water. The <i>Environmental Protection (Unauthorised Discharge) Regulations 2004</i> and the <i>Environmental Protection (Controlled Waste) Regulations 2004</i> also apply.
Tipping, and storage and handling input materials Processing, movement, compaction and crushing of materials Storage and dispatch of final product and non-conforming wastes	Vectors and pathogens	Direct contact affecting health and amenity for nearby residential and light industrial premises	As described in Section 5.4	Slight	Possible	Low	The proposed controls are expected to be sufficient at preventing vectors and pathogens from impacting on receptors.	The SMRC Pest Management Plan-Materials Recovery Facility applies.

Risk Event				Consequence rating <sup>1</sup>	Likelihood rating <sup>1</sup>	Risk <sup>1</sup>	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Dust/Particulates, Toxic air emissions Contaminated fire water runoff, Odour from smoke/air toxics	Waste storage fire event	<p>Air/windborne pathway causing impacts to health and amenity of closest human receptors:</p> <p>Closest residential dwellings 300 m north west of the premises.</p> <p>Closest commercial and industrial premises are 200m NE, 300mNE, 430mNE, 450mE and 600m NE.</p> <p>Traffic, air and overland flow of water causing discharge of waste from building compound to ground.</p>	As described in Section 5.4	Major	Unlikely	Medium	<p>The Delegated Officer notes the existing planning approval required a range of fire prevention and mitigation controls to be installed and operated on the premises and notes that these controls are expected to be sufficient at preventing large scale waste storage fires at the premises and mitigating impacts from fires on nearby sensitive receptors. These controls (and Emergency Management Plan for the premises) have also been considered and found suitable by DFES. The Delegated Officer considers these controls are suitable for inclusion on the Licence as regulatory controls to manage the risk of large scale fires at the premises.</p>	<p>Infrastructure requirements as specified in Condition 5 Table 3.</p> <p>Condition 7 requires the site to adhere to the SMRC Fire and Emergency Response Plan and Condition 8 requires the site to notify the CEO of a fire and discharge of fire water.</p>

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

## 7. Consultation

**Table 10: Summary of consultation**

Method	Comments received	DWER response
Application advertised on DWER website (20/08/2018)	None received	N/A
Local Government Authority was advised of proposal 17 March 2020 and a follow up invitation to comment was extended to the council on 8 June 2020.	The City of Canning did not reply formally to the letter, however planning consent was granted on 21 April 2020.	N/A
Public Transport Authority (PTA) advised of proposal 17 March 2020	On 23 March 2020 DWER received advice that the PTA had no comments to make on the application	N/A
Department of Fire and Emergency Services(DFES) advised of proposal 17 March 2020	On 11 June 2020 DWER received comments from DFES stating that the Fire Emergency Management Plan for the premises was sufficient and further comments were made.	<ul style="list-style-type: none"> <li>• DWER acknowledges that the SAT conditions following the catastrophic fire in 2009 focused heavily on fire management infrastructure and procedures.</li> <li>• DFES undertakes annual inspections of the site.</li> </ul>
Applicant referred draft documents 6 October 2020. Comments were received back on 28 October 2020	<p>The Applicant requested various minor editorial changes to Licence conditions 1, 2 and 5 to clarify listed infrastructure on the premises.</p> <p>The drafted Licence also included conditions relating to noise validation assessments. The Applicant requested draft conditions requiring them to undertake noise validation monitoring be removed. The Applicant advised that the Planning Development Approval granted by the City of Canning on 21 April 2020 also required them to undertake further night-time assessment of noise emissions and this had already been completed. The sites consultant recommended changes to the site (replacement of tonal reversing beepers with broadband reversing beepers), the changes had been implemented and the Noise Management Plan for the site had been updated accordingly.</p>	<p>The Delegated Officer has updated the listed premises infrastructure based on the additional detail provided.</p> <p>The Delegated Officer has also removed the requirement for further noise verification assessments, noting that this assessment has already been completed. The Delegated Officer notes that it remains the responsibility of the Applicant to ensure compliance with the Noise Regulations. Refer to section 5.3.1 – Noise for further details.</p>

## 8. Conclusion

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

**A/MANAGER WASTE INDUSTRIES  
REGULATORY SERVICES**

*An officer delegated by the CEO under section 20 of the EP Act*

## Appendix 1 – References

Document title	In text ref	Availability	
Licence Application form – Regional Resource Recovery Centre – Materials Recycling Facility	DWER259493	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>	
Ministerial Statement 517	MS 517	accessed at <a href="http://www.epa.wa.gov.au/">www.epa.wa.gov.au/</a>	
Licence for the Southern Metropolitan Regional Council's Regional Resource Recovery Centre	L7799/2001/8	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>	
DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	N/A	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>	
DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	N/A		
DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	N/A		
DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	N/A		
DWER, June 2019. <i>Guideline: Decision Making</i> . Department of Water and Environmental Regulation, Perth.	N/A		
DWER, June 2019. <i>Guideline: Industry Regulation Guide to Licensing</i> . Department of Water and Environmental Regulation, Perth	N/A		
Factsheet – Assessing whether material is waste	DWER, undated		accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
Bureau of Meteorology, Wind Roses for Jandakot Airport	BOM, 2020		Accessed at: <a href="http://www.bom.gov.au/climate/data/index.shtml?bookmark=201">http://www.bom.gov.au/climate/data/index.shtml?bookmark=201</a>
Compliance certification fire sprinkler system for the Material Recovery Facility New Bale Storage Warehouse Lot 85 Bannister Road Canning Vale	Tuckwell Fire Protection Consultancy, 2013	DWER Record A1880724	
State Administrative Tribunal Decision DR	SAT, DR 489	Accessed at:	



	2009	<a href="https://ecourts.justice.wa.gov.au/eCourtsPortal/Decisions/ViewDecision?returnUrl=%2feCourtsPortal%2fDecisions%2fFilter%2fSAT%2fCitationNumber&amp;id=1716e875-e0d1-2104-4825-77f3001d7579">https://ecourts.justice.wa.gov.au/eCourtsPortal/Decisions/ViewDecision?returnUrl=%2feCourtsPortal%2fDecisions%2fFilter%2fSAT%2fCitationNumber&amp;id=1716e875-e0d1-2104-4825-77f3001d7579</a>
<i>Southern Metropolitan Regional Council Regional Resource Recovery centre – Groundwater Monitoring Results May 2019</i> (Coffey A Tetra Tech Company, 2019)	Coffey, 2019	DWER records: A1878868
Soil Validation and Site Condition Report – Regional Resource Recovery Centre, Lot *5 Bannister Road, Canning Vale, WA – Regional Resource Recovery Centre (RRRC), Coffey Environmental (2009)	Coffey, 2009	DWER records: A1878864
<i>Southern Metropolitan Regional Council Regional Baseline Environmental Site Assessment</i> (Coffey A Tetra Tech Company, 2019)	Coffey, 2019a	DWER record: A1878864
Figure 4 from: Application supporting documentation -Southern Metropolitan Regional Council Regional Resource Recovery Centre WCF Licence Amendment Application L7799/2001 (SMRC, June 2020)	SMRC, 2020b	DWER record: A1899972
Confirmed Minutes Electronic Ordinary Council Meeting 21 April 2020	City of Canning, 2020	Accessed at: <a href="https://www.canning.wa.gov.au/CanningWebsite/media/Files/Agendas-and-Minutes/Ordinary-Council-Meeting/OCM-2020/OCM-21-APRIL-2020-Minutes.pdf">https://www.canning.wa.gov.au/CanningWebsite/media/Files/Agendas-and-Minutes/Ordinary-Council-Meeting/OCM-2020/OCM-21-APRIL-2020-Minutes.pdf</a>
Contaminated Sites Act 2003 Basic Summary of Records Search Response: 85 Bannister Road Canning Vale, WA, 6155	DWER,2020	Accessed at: <a href="https://dow.maps.arcgis.com/apps/webappviewer/index.html?id=c2ecb74291ae4da2ac32c441819c6d47">https://dow.maps.arcgis.com/apps/webappviewer/index.html?id=c2ecb74291ae4da2ac32c441819c6d47</a>
Application form to amend Environmental Protection Authority Ministerial Statement 517	SMRC, 2020	DWER record: DWERDT283231
Email correspondence from Zara Pedder from SMRC containing maps	SMRC, 2020a	DWER record: A1887893

\*Other than application documents listed in Table 2 of this report

## Attachment 1: Issued Licence L9238/2020/1