Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L7200/1997/10
Licence holder	Cleanaway Pty Ltd
ACN	000 164 938
Registered business address	Cleanaway Pty Ltd Level 4, 441 St Kilda Road, MELBOURNE VIC 3004
DWER file number	DWERVT16239
Duration	17/11/2012 to 16/11/2033
Date of issue	15/11/2012
Date of amendment	27/11/2024
Premises details	Gordon Road Transfer Station LOT 300 ON PLAN 401608 Corsican Place PARKLANDS WA 6180

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed design capacity**
Category 57: Used tyre storage (general): premises (other than premises within category 56) on which used tyres are stored	Less than 300 tyres at any one time
Category 61A: Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.	10,000 tonnes per annual period
Category 62: Solid waste depot: premises on which waste is sorted, or stored, pending final disposal or re-use.	91,000 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 27 November 2024, by:

Melissa Chamberlain

Digitally signed by Melissa Chamberlain
Date: 2024.11.27 15:12:43 +08'00'

Melissa Chamberlain
MANAGER WASTE INDUSTRIES
REGULATORY SERVICES

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

Licence history

Date	Reference number	Summary of changes
15/11/2012	L7200/1997/10	Licence re-issue for a period of 5 years
05/06/2013	L7200/1997/10	Amended licence - Increased throughput of category 62 from 25,000 tonnes per annual period to 50,000 tonnes per annual period. Addition of condition restricting hours of operation of compactor and improvement conditions requiring submission of a noise assessment.
05/05/2016	L7200/1997/10	Amended licence - Change of occupier name, address, extension of expiry date to 2023, and removal of outdated conditions.
24/08/2017	L7200/1997/10	Amendment Notice 1 - Increased throughput and green waste storage capacity.
28/09/2019	L7200/1997/10	Amendment Notice 2 - Increase Category 62 throughput capacity from 60,000 tonnes per annual period to 75,000 tonnes per annual period. Installation and operation of two moving floor systems: • The first moving floor (4m in width) will be located on the northern side of the push pit; and • The second moving floor (2.5m in width) will be located on the west side of the residential tipping floor.
14/07/2021	L7200/1997/10	Amended licence – Amalgamation of amendment notices into existing licence and insertion of conditions pertaining to the recyclables handling facility. Update of premises Lot details and boundary. Addition of category 61A to capture onsite greenwaste processing.
21/09/2022	L7200/1997/10	Amendment to extend operating hours.
13/11/2023	L7200/1997/10	Amendment to increase the Category 62 throughput from 75,000 to 91,000 tonnes per annum, new fire management conditions, and renewal of the licence for 10 years.
17/01/2024	L7200/1997/10	Department-initiated amendment to correct the due date for lodgement of the AACR being 30 days after the end of the annual period.

27/11/2024	L7200/1997/10	Amendment to incorporate changes made to the updated Fire and Emergency Management Plan and fire control infrastructure.

Interpretation

In this licence:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this licence:

  i) if dated, refers to that particular version; and

  ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

General Conditions

Waste acceptance and management

Waste acceptance

1. The licence holder must only accept onto the premises waste of a waste type, which does not exceed the corresponding rate at which waste is received, and which meets the corresponding acceptance specification set out in Table 1.

Table 1: Types of waste authorised to be accepted onto the premises

Waste type	Rate at which waste is received	Acceptance specification
Inert Waste Type 1 and Inert waste type 2 (excluding used tyres)	Limited to a combined maximum of 91,000 tonnes per annual period	None
Special Waste Type 1 (asbestos and asbestos cement products)		The licence holder shall not accept any asbestos or ACM waste onto the premises unless it is wrapped to effectively contain asbestos fibres
Used lead acid batteries		Limited to car batteries To be stored in fully sealed bins within the designated used lead acid battery storage area
Household Hazardous Wastes		Limited to domestic hazardous waste types as listed in Schedule 2 (up to a maximum of 20 litres or 20 kilograms per package/item).
e-waste		Waste electronic items
Scrap Metal		Scrap metal, including whitegoods
Putrescible waste		None
Recyclable waste		None
Green waste	Limited to a maximum of 10,000 tonnes per annual; period	Limited to green waste as defined in the Definitions table

Waste type	Rate at which waste is received	Acceptance specification
Inert Waste Type 2 (used tyres)	Limited to a maximum of 300 tyres stored on site at any given time	No specifications
Waste mineral oil	Limited to a maximum of 100 tonnes per annual period	Limited to domestic quantities of waste Oils, hydrocarbons and oil and water mixtures or emulsions, up to 20 litres or 20 kilograms per package/item

2. The licence holder must ensure that where presented waste does not meet the waste acceptance criteria set out in condition 1, it is removed from the premises by the same delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable, but no later than 7 days from the initial segregation and storage.

Waste processing

3. The licence holder must ensure that wastes accepted onto the premises are only subjected to the corresponding processes which meet the corresponding process specification set out in Table 2.

Table 2: Waste processing specifications

Waste type	Process	Process specification
Inert Waste Type 1 and Inert waste type 2 (excluding used tyres)	Storage	Inert wastes to be stored on an appropriate hardstand The licence holder shall ensure that any waste accepted onto the premises is transported to an approved facility for the processing or disposal of such waste in accordance with the Landfill Definitions
Special Waste Type 1 (asbestos and asbestos cement products)	Storage	Any asbestos or asbestos containing material received at the premises shall be placed in a dedicated bin which is clearly signposted The licence holder shall ensure that any waste accepted onto the premises is transported to an approved facility for the disposal of such waste in accordance with the Landfill Definitions
Used lead acid batteries	Storage	Used lead acid batteries to be stored in fully sealed bins or on self-bunded pallets within the designated used lead acid battery storage area The licence holder shall ensure that any used lead acid batteries accepted onto the premises are collected and transported to an approved waste facility for the storage or processing of such waste

Waste type	Process	Process specification
Household Hazardous Wastes	Consolidation and storage	The licence holder shall ensure that any Household Hazardous Wastes accepted onto the premises are stored within a lockable shed with a bunded concrete base draining to a sealed sump prior to transportation to a waste facility approved for the storage or processing of such waste
Scrap metal	Storage	Scrap metal to be stored on an appropriate hardstand The licence holder shall ensure that any waste accepted onto the premises is transported to an approved waste facility for the processing of such waste
E-waste	Storage	E-waste to be stored in dedicated bins The licence holder shall ensure that any waste accepted onto the premises is transported to an approved waste facility for the processing of such waste
Putrescible waste	Storage	The licence holder shall ensure that receipt, storage, and handling only occur atop the transfer station moving floor The licence holder shall ensure that no putrescible waste remains on the waste transfer station moving floor for longer than 24 hours The licence holder shall ensure that the waste transfer station moving floor is cleared of all waste and cleaned at least once every seven (7) days The licence holder shall ensure that any waste accepted onto the premises is transported to an approved facility for the treatment or disposal of such waste in accordance with the Landfill Definitions
Recyclable waste	Storage and compaction	The licence holder shall ensure that receipt, storage and handling only occur within the enclosed Recycling Shed. The licence holder shall ensure that no recyclable waste remains within the Recycling Shed for longer than 72 hours. The licence holder shall ensure that any waste accepted onto the premises is transported to an approved waste facility for the storage or processing of such waste
Green waste	Storage, shredding and stockpiling	The licence holder shall take the following measures relating to storage of green waste on the premises: (a) No greater than 9,000 m^3 of green waste shall be stored at any one time; (b) No greater than 3,000 m^3 of mulched green waste shall be stored at any one time; (c) All mulched green waste shall be stored in windrows which are no more than 50 metres in length, 10

Waste type	Process	Process specification
		metres in width and 5 metres in height with 41 metres of clearance between the windrows; (d) Temperatures within mulched green waste windrows shall be monitored on a weekly basis and aerated if temperatures are 70 degrees Celsius or above; (e) All green waste storage areas shall be on an appropriate hardstand; and (f) A five-metre firebreak shall be maintained around green waste storage areas and between individual stockpiles; (g) Green waste shall be mulched at least every two months; and (h) mulched green waste shall be removed from the premises within four weeks of mulching; and (i) shredded green waste (mulch) is transported to a waste facility approved for the processing of such material
Inert Waste Type 2 (used tyres)	Storage	The licence holder shall ensure that any used tyres accepted onto the premises are transported to an approved waste facility for the storage or processing of such waste
Waste mineral oil	Consolidation and storage	The licence holder shall ensure that any waste mineral oil accepted onto the premises is collected and transported to an approved waste facility for the storage or processing of such waste

4. The licence holder must ensure that waste stockpiles within the Recycling Shed are managed to the following specifications;

(a) The volume of each stockpile must be maintained below 1,000 m^3;

(b) waste stockpiles must not exceed 4.8 m in height;

(c) waste stockpiles must be separated by at least 10 m;

(d) Length of waste stockpiles along the rear push wall (southern elevation) must not exceed 10 metres (as depicted in figure 3.1 of schedule 3);

(e) Waste stockpiles must maintain a minimum clearance of 5 metres from the face of the shed (northern elevation);

(f) Open stockpile faces must be maintained at an angle of 45º or shallower;

(g) Baled fibre, paper and plastics stockpiles must not exceed 4.8 m in height; and

(h) The front row of the baled fibre, baled paper and baled plastic stockpiles must not exceed 2 bales high.

Premises Operation

Fencing

5. The licence holder must maintain a security fence around the perimeter of the premises to effectively control windblown waste and restrict access to the premises. The premises shall have a public access point with a lockable gate that shall be secured after hours.

Windblown waste

6. The licence holder must ensure windblown waste is contained within the boundaries of the premises.

7. The licence holder must ensure waste transfer bins are covered before leaving the premises to prevent the generation of windblown waste.

Dust suppression

8. The licence holder must operate the dust suppression system within the waste transfer shed when dust is evident, and erect wind barriers around any open waste stockpiles to prevent fugitive dust emissions.

9. The licence holder must ensure that any dust emitted from the premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the premises.

Odour control

10. The licence holder must ensure that odour emitted from the premises does not unreasonably interfere with the health, welfare, convenience comfort or amenity of any person who is not on the premises.

Burning of waste

11. The licence holder must not burn, or permit the burning of, any materials at the premises.

Stormwater drainage

12. The licence holder must:

(a) Direct stormwater away from waste storage areas; and

(b) Clear stormwater drains of waste to allow effective drainage.

Wastewater collection

13. The licence holder must collect and store all wastewater emanating from the waste transfer station and the vehicle wash-down bay, within storage tanks.

Wastewater disposal

14. The licence holder must only dispose of wastewater via irrigation onsite if it complies with the following criteria:

(a) pH of between 6 and 9; and

(b) total dissolved solids less than 1,500 milligrams per litre.

Wastewater monitoring

15. The licence holder must collect representative samples every three months from the wastewater collection tanks if wastewater is to be used for irrigation onsite, and have these analysed for:

(a) pH; and

(b) total dissolved solids (milligrams per litre).

Water sample collection and analysis standards

16. The licence holder must collect all water samples in accordance with Australian Standard AS/NZS 5667.1-1998.

17. The licence holder must submit all water samples to a laboratory with current NATA accreditation for the analyses specified, and have the samples analysed in accordance with the current "*Standard Methods for Examination of Water and Wastewater"*– American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF)" (as amended).

Liquid waste management

18. The licence holder must recover or remove and dispose of any spills of liquid hazardous waste as soon as practicable.

19. The licence holder must ensure that any accumulated liquids, and residues from the recovery of spills, are stored in an impervious container prior to disposal at an appropriately authorised facility.

Fire

20. The licence holder must:

(a) Implement and adhere to the 'Gordon Road Transfer Station, Fire & Emergency Management Plan, Ref 301252010' (attached as Schedule 3).

(b) ensure that all firefighting equipment and systems are in good working order, and capable of controlling a loose material fire in accordance with the requirements of AS 1851:2012;

(c) ensure that any unauthorised fire on the premises is extinguished as soon as possible;

(d) collect and remove all accumulated fire wash-water and other waste that may result from firefighting on the premises within 24-hours of a fire event;

(e) ensure that any firefighting wash-water is removed without delay by a carrier licenced under the *Environmental Protection (Controlled Waste) Regulations 2004,* and remove all fire impacted waste for disposal off-site to a suitably licensed premises;

(f) maintain and test the Fire Rover™ system in accordance with the supplier's recommendations.

(g) in the event that the Fire Rover system is offline, operations within the Recycling Shed are to be paused until it is back online.

Notification requirements

21. The licence holder must immediately notify the CEO of:

(a) any fire on the premises; and/or

(b) any accident, malfunction, or emergency which results or could result in the discharge of fire-fighting wash water or other wastes from the premises.

Operation of waste compactors

22. The licence holder must ensure that waste compactor units within the Waste Transfer Shed and the Recycling Shed are operated only between the hours of 07:00 and 19:00, Monday to Sunday (including public holidays).

Operation of green waste shredders

23. The licence holder must ensure that the in-line grinders deployed for the shredding of stockpiled green waste are operated only between the hours of:

(a) 07:00 and 19:00, Monday to Saturday (excluding public holidays); and

(b) 09:00 and 16:00 on Sundays and public holidays.

Reporting

24. The licence holder must provide to the CEO an annual monitoring report covering the period 1 January to 31 December, by 28 February of the following year. The report shall contain the following data:

(a) Details of the measures or actions taken to prevent off-site impacts and pollution from the site over the previous calendar year, including issues such as dust, odour and control of pests and vermin;

(b) Details of any on-site or off-site pollution incidents over the previous calendar year;

(c) Details of any changes to site boundaries, internal buffer zones, operating procedures, site drainage, etc.

(d) Details of complaints received, including the complainants name, address, nature of the complaint, data and time, likely source and action taken; and

(e) Wastewater monitoring results as required by condition 15.

25. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

(b) prepare and submit to the CEO by no later than 30 days after the end of that annual period an Annual Audit Compliance Report in the approved form.

Definitions

In this licence, the terms in Table 3 have the meanings defined.

Table 3: Definitions

Term	Definition
ACM	means asbestos containing material and has the meaning defined in the Guidelines for Assessment, Remediation and Management of Asbestos Contaminated Sites, Western Australia (DOH, 2009).
ACN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	a 12-month period commencing from 1 January until 31 December of the same year.
approved form.	the AACR Form template approved by the CEO for use and available via DWER's external website
asbestos means	means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite and any mixture containing 2 or more of these.
AS 1851:2012	refers to the Australian Standard for Routine service of fire protection systems and equipment
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
condition	a condition to which this works approval / licence is subject under section 62 of the EP Act.
Controlled Waste Regulations	means the *Environmental Protection (Controlled Waste) Regulations 2004.*
Department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.

Term	Definition
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
green waste	biodegradable waste comprising plants and their component parts such as flower cuttings, hedge trimmings, branches, grass, leaves, plants, seeds, shrub and tree loppings, tree trunks, tree stumps and similar materials and includes any mixture of those materials.
Household Hazardous Wastes	means the materials listed in Schedule 2 disposed of by occupiers of private residences; that is, not produced by industrial or other sources
Landfill Definitions	Refers to the *Landfill Waste Classifications and Waste Definitions* 1996, as amended from time to time.
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
Noise Regulations	means the *Environmental Protection (Noise) Regulations 1997*
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map Figure 1 in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
suitably licensed premises	means a premises that holds an active authorisation under Part V, Division 3 of the EP Act to accept that waste type.
waste	has the same meaning given to that term under the EP Act.
waste type	Means the waste types identified in the Landfill Definition and/or in Schedule 1 of the Controlled Waste Regulations (as applicable)

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

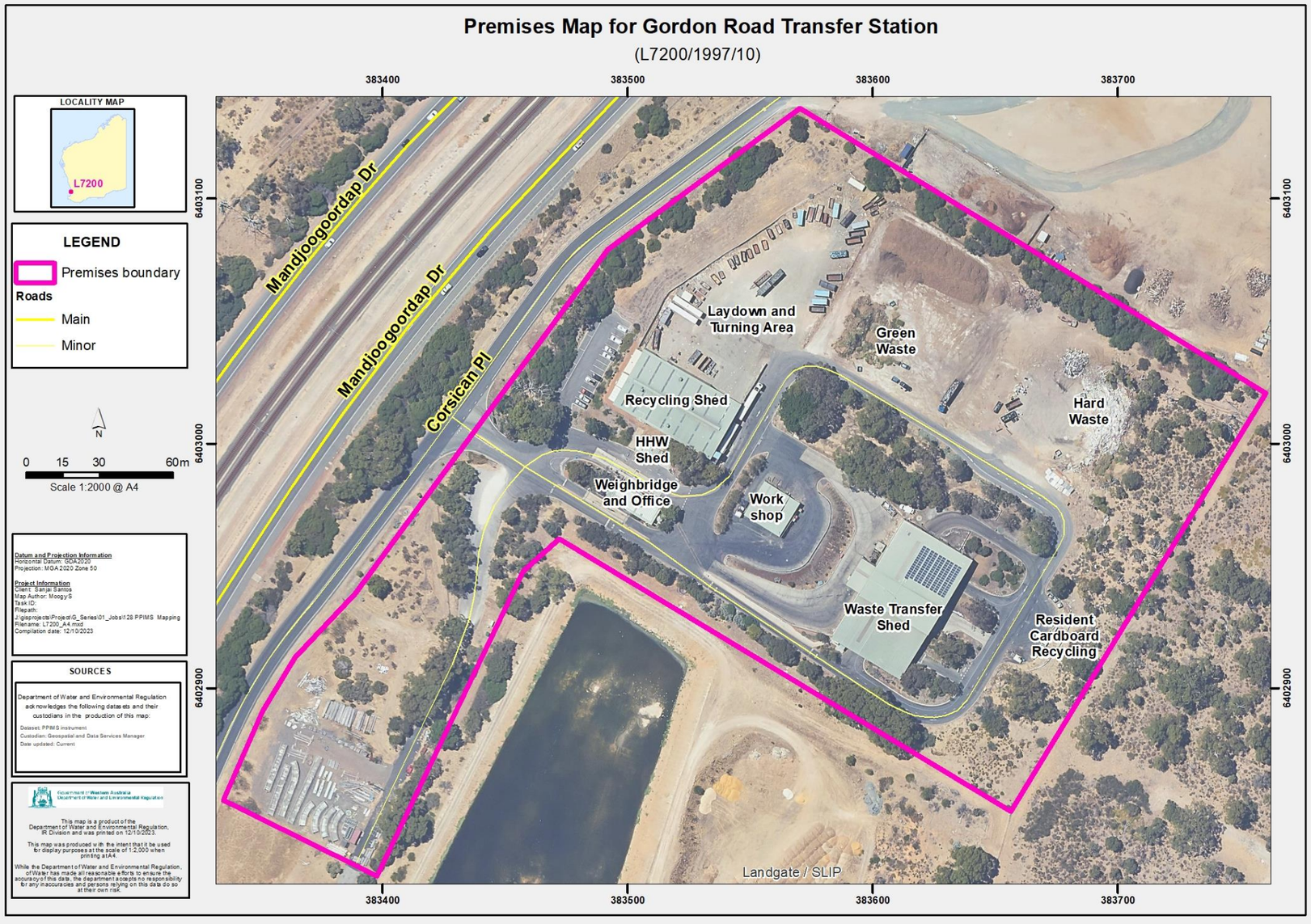

Figure 1: Map of the boundary of the prescribed premises and primary infrastructure

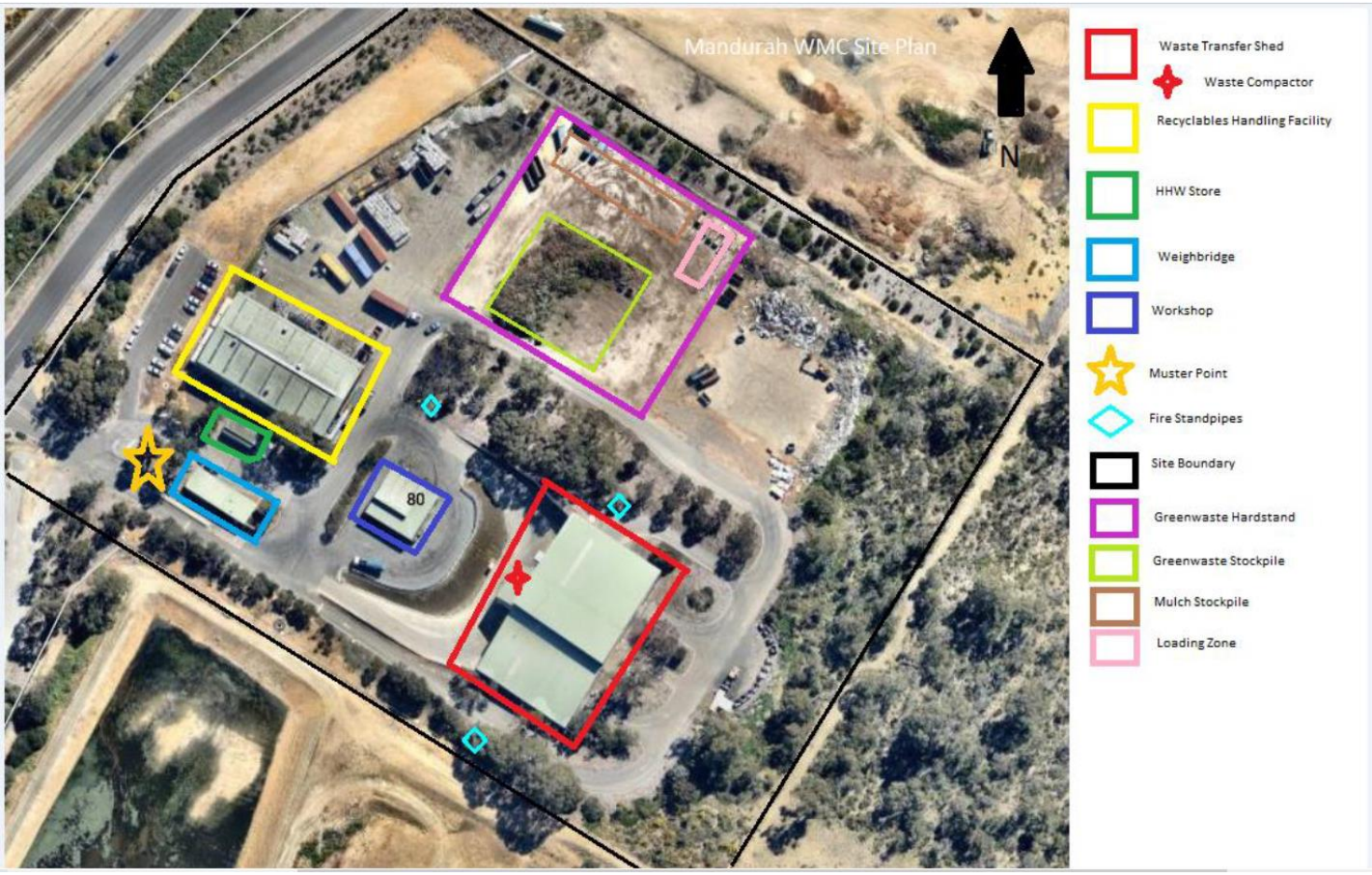

Figure 2: Gordon Road transfer station site plan.

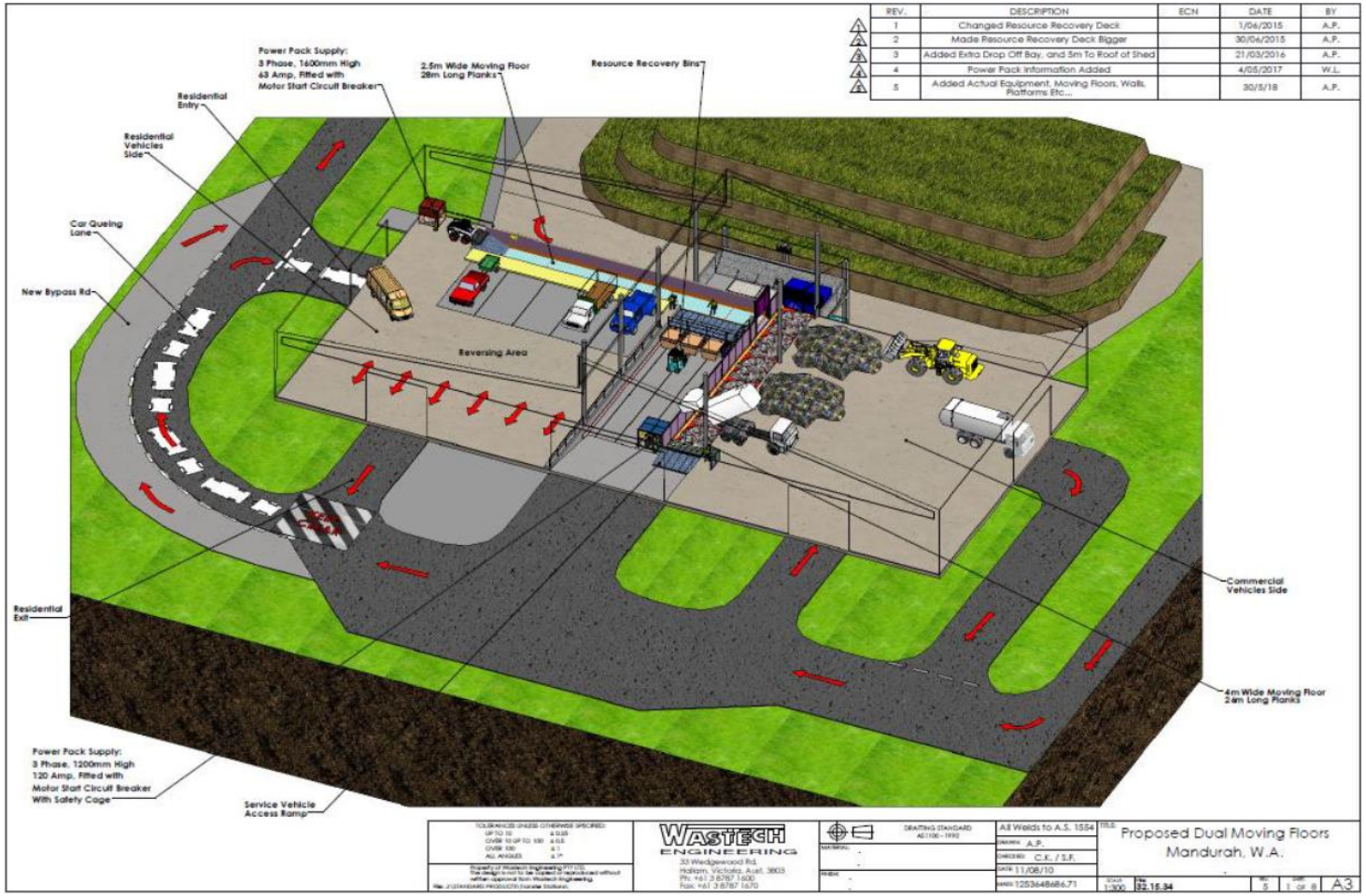

Figure 3: Waste transfer shed layout

Schedule 2: Household Hazardous Wastes

Acids
Aerosols – CFC based
Aerosols, flammable – paint and lacquers
Aerosols, flammable - pesticide
Alkalis
Arsenic based products
Batteries - household, dry cell
Cyanides
Engine coolants and glycols
Fire extinguishers – non-Halon
Flammable liquids – hydrocarbons and fuels
Flammable solids
Flares
Fluorescent tubes, compact fluorescent lights and light fittings
Gas cylinders – other
Gas cylinders – propane
General household chemicals e.g., cleaners
Heavy metal compounds
Inorganic oxidising agents – e.g., pool chlorine
Low level radioactive substances e.g., smoke detectors
Mercury – elemental
Organic peroxides
Paint – metal based
Paint – other, including isocyanates and amines
Paint – recyclable
Paint – solvent based, including resins and adhesives

Paint – water based
PCB materials
Pesticides – non-Schedule X
Pesticides – Schedule X
Solvents – halogenated
Toxics

Schedule 3: Fire and Emergency Management Plan

Gordon Road Transfer Station

Fire & Emergency Management Plan

3 September 2024 **Ref: 301252010**

PREPARED FOR:

Les Egerton

Cleanaway

PREPARED BY:

Stephen King

Stantec

Revision Schedule

Revision No.	Date	Description	Approved
01	08/09/21	Draft Issue	SDK
02	10/09/21	Updated to include comments	SDK
03	10/09/21	Minor amendment	SDK
04	06/09/23	Updated with amendments associated with provision of fixed automatic fire fighting system (Fire Rover) to Recycling Shed	SDK
05	09/11/23	Recycling shed figure and pile size limits updated, review of putrescible waste fire scenario	SDK
06	14/08/24	Updated to reflect fire hydrant system upgrade and reconfiguration of the recycling shed layout	SDK
07	03/09/24	Revised pile designation in recycling shed	SDK

Disclaimer

The conclusions in the report are Stantec's professional opinion, as of the time of the report, and concerning the scope described in the report. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. The report relates solely to the specific project for which Stantec was retained and the stated purpose for which the report was prepared. The report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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Contents

Emergency Contact Information

Site Contacts

Role		Name	Contact Number
Branch Manager	Cleanaway	Scott Bird	0498 399 972
Emergency Controller	Cleanaway	John Grayson	0407 135 067
Technical Supervisor – Solids	Cleanaway	Glenn McManus	0498 124 077
Area Warden		Ryan Godden	08 9550 3888
First Aider		Jan Stephens	
First Aider		Jana Ramage	
First Aider		Codie Draper	

External Contacts

Name		Contact Number		
Fire Brigade	DFES	000	or	112
Police		000	or	112
Ambulance		000	or	112
Poisons Information Centre		13 11 26		
Wastech (Fire Rover)		1300 665 870		
Water Corporation		13 13 75		
Electrical Supply Authority	Western Power	13 13 51		
Gas Supply Authority	ATCO Gas	13 13 52		
Medical	Workscreen	08 9535 9290		
Medical	Peel Heal Campus	08 9531 1800		
City of Mandurah	Ranger	08 9550 3630		
Crisis Counselling	Converge International	1300 687 327		
Work Health and Safety (WHS)	Comcare	1300 366 979		
State Emergency Service		08 9780 1900	or	132 500

1. Introduction

1.1 Purpose

The purpose of this document is to formalise the fire risk identification and response processes for the Gordon Road Transfer Station, fulfilling requirements of the facility licence from the Department of Water and Environmental Regulation (DWER), Licence L200/1997/10.

The Fire & Emergency Management Plan (FEMP) includes the following:

- Site information, which includes a summary of the site, types of materials processed and stored on site, operational processes and emergency equipment
- Emergency Contact Information
- Identification of Key Risks to the Site
- Pre-planning requirements
- Fire Emergency Response Procedures
- Summary of fire water run-off and containment provisions

1.2 Risk Identification

1.2.1 Context and Objectives

A simplified risk assessment has been undertaken to identify the most relevant fire emergencies to be considered for pre-planning for emergency responses and potential adverse outcomes.

1.2.2 Likelihood Ratings

The "Likelihood" for difference scenarios occurring is presented below based on a qualitative description of likelihood.

Almost certain:	A	Will occur during the lifetime of the site, regardless of maintenance or human error
Likely:	B	Strong possibility that the event will occur during the lifetime of the building
Moderate:	C	Probable that the event will occur during the lifetime of the building
Unlikely:	D	Not expected to occur during the lifetime of the facility based on reasonable standards of maintenance and management in use
Rare:	E	Unlikely that conditions will arise that would result in the event occurring during the lifetime of the building

Table 1.1 - Definition of Likelihood used for Risk Assessment

1.2.3 Consequence Ratings

The "Consequence" for different outcomes are outlined below in Table 1.2 below. On the basis that the buildings on site contain few occupants and are provided with egress points which are within the distances prescribed under the BCA Deemed-to-Satisfy provisions, the life safety considerations are not directly included in the risk assessment.

Major:	5	Full replacement of building, spread to adjoining properties
Significant:	4	Full refurbishment or replacement of the building
Moderate:	3	Replacement of fixed equipment or large mobile plant
Minor:	2	Facility offline for short period for minor repairs or investigation
Insignificant:	1	Localised damage, operations resume within one business day

Table 1.2 - Categorisation of Consequence, Property Protection Considerations

1.2.4 Risk Rating Matrix

The overall "Risk Rating" for a particular fire scenario is determined based on the combination of the "Likelihood" of an event occurring, and the "Consequence" of the outcome of the event.

	Risk Rating				
	Consequence				
Likelihood	Insignificant (1)	Minor (2)	Moderate (3)	Significant (4)	Major (5)
Almost Certain (A)	Moderate	High	High	Extreme	Extreme
Likely (B)	Moderate	Moderate	High	High	Extreme
Moderate (C)	Low	Moderate	Moderate	High	High
Unlikely (D)	Low	Low	Moderate	Moderate	High
Rare (E)	Low	Low	Low	Moderate	Moderate

Table 1.3 - Risk Rating Matrix

The following risks have been considered in relation to the Fire Emergencies considered under this plan:

Emergency Type	Location	Primary Fuel / Ignition Source	Likelihood	Consequence	Risk Rating	Comment
Fire	Recycling Shed	Material on Incline Conveyor Friction of materials on sides or bearings	Likely	Minor Fire Rover system to control fire and prevent re-ignition.	Moderate	Regular equipment maintenance required, visual monitoring of plant. Fire Rover to be maintained and operational.
	Recycling Shed	Material at Edge of Pile Sparks from bucket on concrete	Likely	Insignificant. Fire Rover system to control fire and prevent re-ignition.	Moderate	Fire Rover to be maintained and operational. Secondary response to include removal of material to external hardstand area
	Recycling Shed	Material in main pile Burning material introduced to main pile	Moderate	Minor	Moderate	Fire Rover to be maintained and operational. Monitoring and vigilance required to avoid spreading fire into main pile
	Green Waste Area	Dry combustibles, sparks from bushfire, vehicles, etc.	Moderate	Moderate Potential damage to equipment, impact on community	Moderate	

Emergency Type	Location	Primary Fuel / Ignition Source	Likelihood	Consequence	Risk Rating	Comment
	Green Waste Area	Dry combustibles. potential spontaneous combustion from decomposition	Unlikely On-site storage duration anticipated to be less than 3 months	Moderate Potential damage to equipment, impact on community	Low	
	Inert Materials Area	Combustible contaminants in otherwise inter materials pile Embers from bushfire, etc.	Unlikely	Insignificant	Low	
	Residential Cardboard Area	Cardboard in Metal Bins Smoking, or embers	Moderate	Insignificant	Low	
	Waste Transfer Shed	Material at Edge of Pile Sparks from bucket on concrete	Moderate	Moderate Localised impact only, unlikely to ignite other materials due to moisture content of putrescible materials	Moderate	
	Waste Transfer Shed – Compactor	Material in compactor, ignition of batteries or other items due to friction	Moderate	Moderate Damage to vehicle trailer or compactor	Moderate	
	Waste Transfer Station	Fire involving gas leakage from discarded gas bottles	Moderate	Moderate Localised impact only, unlikely to ignite other materials	Moderate	
	Waste Oil	Waste oil containers	Unlikely	Minor	Low	

Table 1.4 - Risk Identification and Rating

2. Facility Information

2.1 Location and Site Plan

The site is located on Corsican Place in Parklands, WA, 6180, with an overall site area of approximately 60,000 m², including a number of buildings, ranging from 50 m² to 1,850 m². Figure 2.1 shows an aerial view of the site identifying key areas.

Figure 2.1 - Site Plan

2.2 Material Type and Quantities

The site processes a mixture of different materials, including the following:

- Commercial paper and cardboard
- Garden and Green Waste
- Mixed Hard Waste, including tyres, scrap metal, e-waste, construction waste and mattresses
- Residential cardboard
- Comingled residential waste from council collection

- Mixed residential waste
- Household hazardous wastes

2.3 Dangerous Goods

Limited Dangerous Goods are present on site, primarily located in the Household Hazardous Waste area and in segregated bins and cages in the domestic waste part of the Waste Transfer Shed

2.4 Equipment and Machinery

2.4.1 Fixed Equipment

The following fixed equipment is located on site:

- 2 x hydraulic plate compactors
- Moving floor in waste transfer shed
- Inclined feed conveyor to commercial recycling shed

2.4.2 Mobile Equipment

The site is provided with the following mobile equipment:

- Front end loader for loading feed hopper in Recycling Transfer Shed and loading moving floor in Waste Transfer Shed
- Mobile Excavator for green waste transfer and sorting

2.5 Emergency Services Response

2.5.1 Emergency Services Provisions

The site is provided with a combination of fixed and portable fire fighting and emergency response equipment, including the following:

- Automatic "Fire Rover™" System to Recycling Shed
  - Monitoring via IR camera
  - Automatic water monitors located on opposite sides of shed providing full coverage to tipping area
  - 24/7 Monitoring
  - Incorporates Wetting Agent
- Fixed on-site fire hydrants – **upgrade works pending**
  - Twin-head hydrant located adjacent the compactor truck access ramp entry
  - Twin-head located adjacent the commercial vehicle entry to the Waste Transfer shed
  - Hydrants supplied from fixed bores with on-site generator
- Portable fire monitor (water cannon) with on-site hose (60 m)
- Fire hose reels located near exits from the Recycling Transfer Shed and Waste Transfer Shed
- 1,500 litre portable fire fighting skid for external site fire fighting

- Portable fire extinguishers located in the Recycling Transfer Shed, Waste Transfer Shed, Workshop, Weighbridge / Gatehouse (x 2), and Household Hazardous Waste shed
- Emergency alarm system with activation points in the Gatehouse, Waste Shed, and Recycling Shed
- Fire blanket in gatehouse
- Emergency Eyewash stations
  - Recycling Transfer Shed – north western corner
  - Waste Transfer Shed – south eastern corner near domestic vehicle exit
  - Household Hazardous Waste building
- First Aid Kit in Weighbridge office
- 240 L emergency spill kits
  - Household Hazardous Waste building
  - Recycling Transfer Shed – north western corner
  - Workshop Building – northern side
  - Waste Oil Storage Area – east of Waste Transfer Shed

2.5.2 Fire Hydrant System Upgrade

The site fire hydrant system upgrade are planned to occur in the near future, with the new system configured as follows:

- New connection to the Water Corporation street main in Corsican Place
- 2-off 85 kL fire hydrant water storage tanks
- Dual diesel fire pumpsets in accordance with AS 2419.1 in duty / standby configuration
- Fire brigade booster cabinet near fire water pumps and tanks
- In-ground fire service reticulation to serve new external fire hydrants and existing fire hose reels

For further information refer to drawing LCE101325-F200-T3 included in Appendix A, which shows the proposed upgrade works.

2.5.3 Emergency Services Access

Emergency Services access to the site is from Corsican Place, with the nearest junction at Gordon Road, Greenfields. The nearest fire station is the Mandurah Fire & Rescue Service, which is located at the corner of Cumberland Street and Panton Road, Greenfields WA 6210, approximately 2.2 kilometres from the site, as shown in Figure 2.2.

Figure 2.2 - Emergency Services Access to Site

Figure 2.3 shows the emergency services vehicle access routes on the site, including entry points to each of the Transfer Sheds, the location of major switchboards and the location of pumped on-site hydrants.

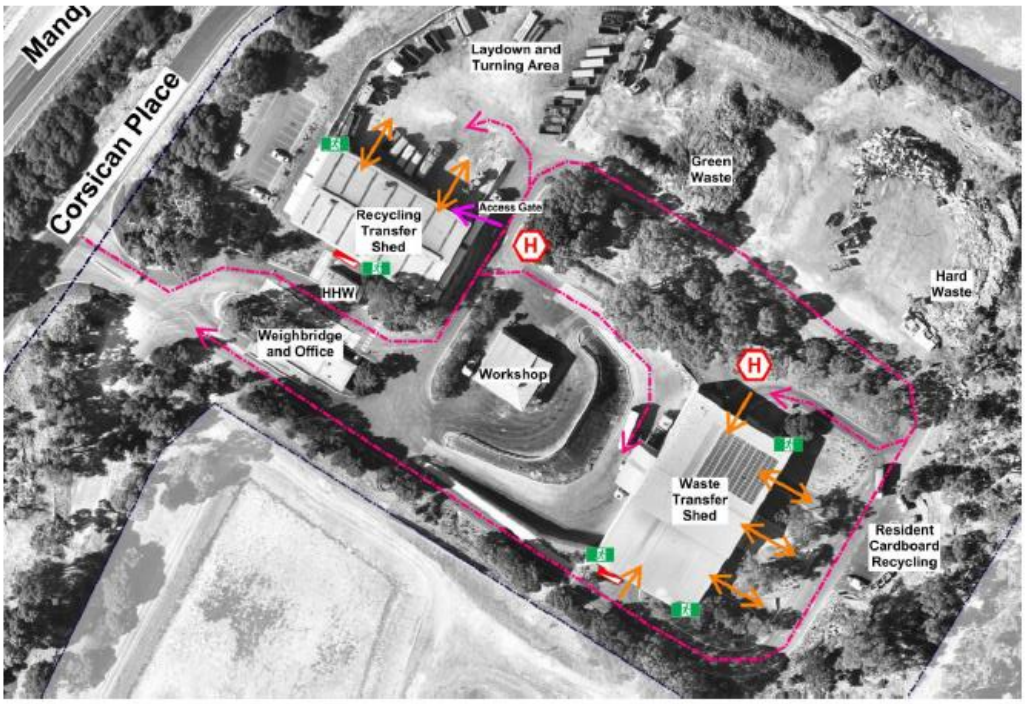


Figure 2.3 - Emergency Vehicle Site Access Routes – pre-hydrant system upgrade

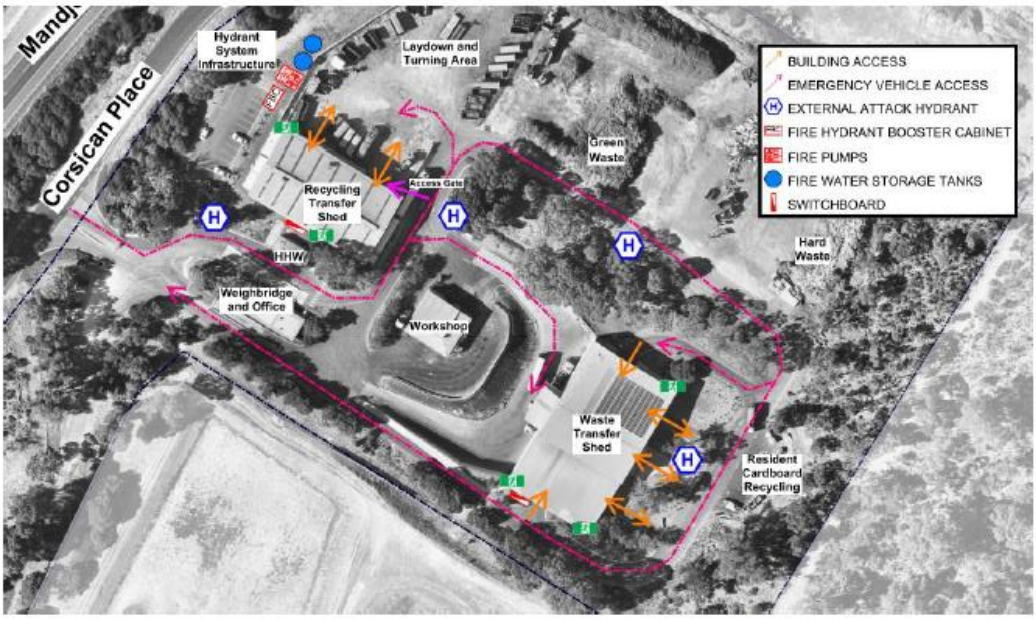


Figure 2.4 - Emergency Vehicle Site Access Routes – after hydrant system upgrade

2.6 Communication Equipment

The site is provided with the following on-site communication equipment:

- Two-way Radios
- Emergency alarm system with activation points at the Gatehouse, Waste Shed and Recycling Shed

3. Recycling Shed

3.1 General

The Recycling Shed is located to the north of the main site entrance, with vehicle access from the northern face.

3.2 Layout and Emergency Equipment

3.2.1 Building Layout

The layout of the Recycling Shed is shown in Figure 3.1 below. Clearances and pile size limitations are outlined in Section 3.4 and Table 3.1.

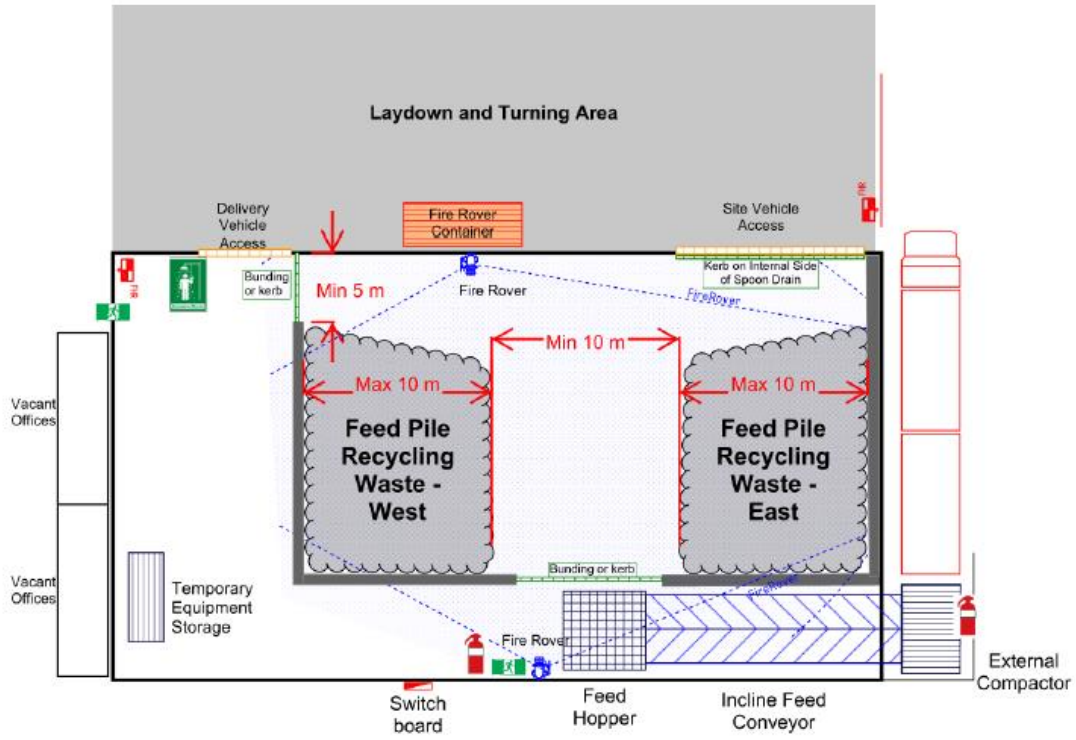


Figure 3.1 - Recycling Shed Layout

3.2.2 First Attack Fire and Emergency Equipment

Emergency equipment included in the Recycling Shed include the following:

- Automatic "Fire Rover™" System to Recycling Shed
  - Monitoring via IR camera
  - Automatic water monitors located on opposite sides of shed providing full coverage to tipping area.

    Nozzles incorporate with pan and tilt functionality and have been commissioned to provide coverage to the full tipping area.

    The control system allows water to be directed to the immediate fire location and provide pre-wetting to adjacent areas to prevent fire spread.

- 24/7 Monitoring
- Incorporates Wetting Agent

- 2 x dry chemical powder portable fire extinguishers
  - Near exit adjacent feed hopper
  - External adjacent hydraulic compactor
- 2 x fire hose reels
  - Adjacent north western exit
  - On fence adjacent north eastern corner of shed
- Emergency shower near north western roller door entry

Beyond immediate operator response, the FireRover system is a critical component to the fire prevention strategy for the Recycling Shed. Early intervention and application of a controlled fire extinguishing product directly to a developing fire significantly reduces the amount of water required, reducing the subsequent cleanup time and run-off post-fire.

The FireRover system is a nitrogen driven automatic extinguishing system which stored pressure nitrogen cylinders to drive a mixture of water and F-500, which is a Water Additive developed for fire control under the NFPA 18A standard for control of different Class fires, including Class A fires as applicable to the Recycling Shed.

The system allows automatic response to the early stages of a fire on a 24/7 basis, applying the extinguishing media directly to the fire and protecting against reignition.

Figure 3.2 - FireRover Monitor and IR Cameras on Northern Wall looking from below

The system is configured with start and stop operation, allowing response to successive fire events.

3.2.3 Fire Brigade Equipment – Existing

The nearest exiting fire hydrant to the building is a twin-head hydrant connected to the on-site bore pump system, located approximately 15 metres to the east of the north easter corner of the building.

This hydrant is expected to provide coverage to the Recycling Shed from two lengths of 30 metre hose (60 metres total), allowing for up to 20 metres to a fire appliance from the hydrant outlet and up to 10 metres spray.

3.2.4 Fire Brigade Equipment – Upgrade Works

The fire hydrant system upgrade works will replace the existing fire hydrant with a new pumped attack hydrant to maintain coverage as provided by the existing installation.

3.2.5 Electrical Isolation

The main building switchboard is located externally on the southern side of the building, near the emergency exit door, and facing towards the gatehouse.

3.3 Building Operation

The process in the Recycling Shed is summarised as follows:

1. Waste paper and cardboard is delivered via truck to the feed pile, from the north
2. Preliminary visual inspection and removal of significant contaminants via operators
3. Waste is loaded to the feed hopper at the base of the incline feed conveyor
4. Waste is compacted via hydraulic plate compactor to A-Double trailer attached to external compactor

3.4 Pile Size Limitations

Pile size limitations apply as shown in Table 3.1 for compliance with Condition 4 of Licence L7200/1997/10:

Element	Pile Type	Dimension	Comment
Height	Both	4.8 metres	
Pile Volume	Both	1,000 m^3	
Length along push wall – rear	Feed Pile Recycling – West	10 metres	Length along side wall may be extended to maintain a minimum clearance of 5 metres from front face of shed (northern elevation)
Length along push wall – rear	Feed Pile Recycling – East	10 metres	Minimum 1 metre clear from opening to feed hopper
Clearance between piles		10 metres	

Table 3.1 - Pile Size Limitations, Recycling Shed

4. Waste Transfer Shed

4.1 General

The Waste Transfer Shed is located to the east of the site entrance, with vehicle access from the northern face for commercial vehicles and the southern face for domestic vehicles, with exits from the eastern face.

4.2 Layout and Emergency Equipment

4.2.1 Building Layout

The layout of the Waste Transfer Shed is shown in Figure 4.1 below.

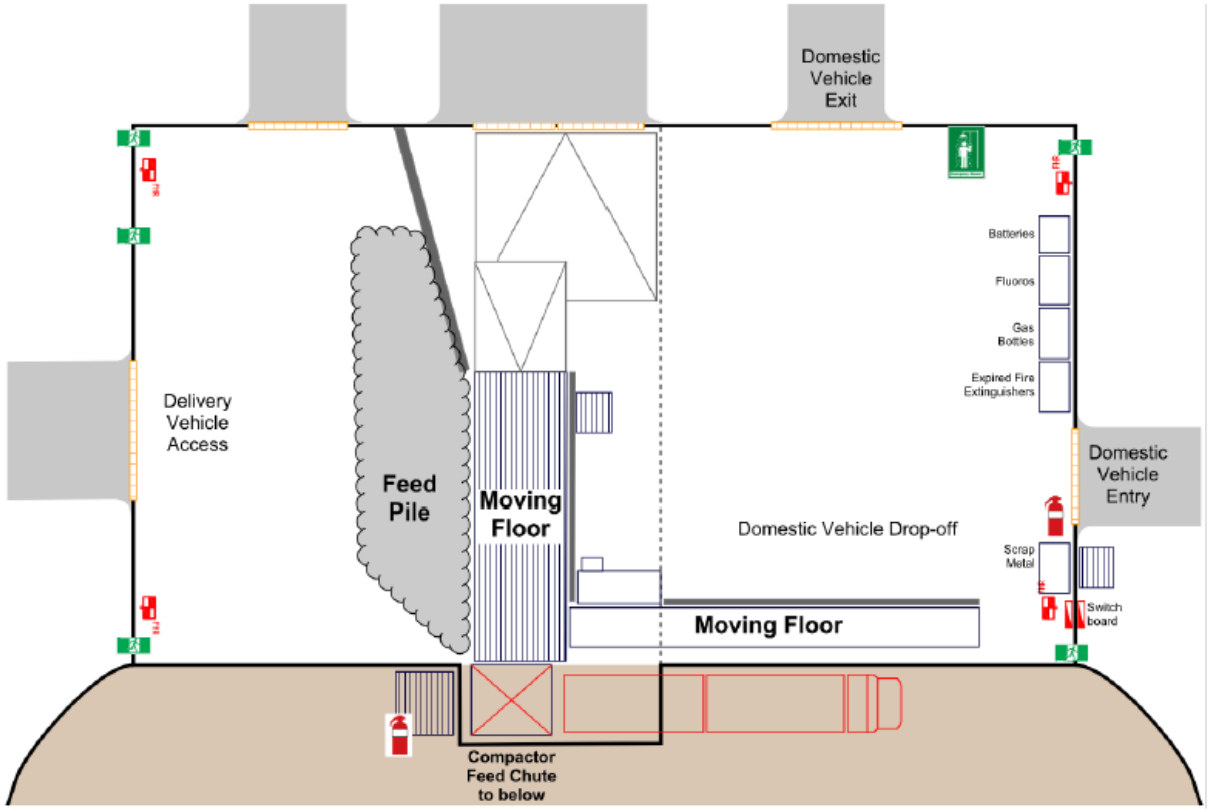


Figure 4.1 - Waste Transfer Shed Layout

4.2.2 First Attack Fire and Emergency Equipment

Emergency equipment included in the Waste Transfer Shed include the following:

- Monitored thermal sensing cameras
- 2 x dry chemical powder portable fire extinguishers
  - Main level near domestic vehicle entry
  - Lower level adjacent compactor plant
- 4 x fire hose reels

- Adjacent north eastern exit
- Adjacent north western exit
- Adjacent south western exit
- Adjacent south eastern exit

- Emergency shower near south eastern roller door (domestic vehicle exit)

4.2.3 Fire Brigade Equipment – Existing

The nearest fire hydrant to the building is a twin-head hydrant connected to the on-site bore pump system, located approximately 15 metres to the north of the northern roller door access to the building.

This hydrant is expected to provide coverage to the commercial waste transfer side of the Waste Transfer Shed (northern side) from two lengths of 30 metre hose (60 metres total), allowing for up to 20 metres to a fire appliance from the hydrant outlet and up to 10 metres spray.

Additional hose lengths would be required for the southern side of the Waste Transfer Shed, or alternatively use the street hydrant outlets along the southern access road.

4.2.4 Fire Brigade Equipment – Upgrade Works

The fire hydrant system upgrade works will replace the existing hydrant near the northern side of the Waste Transfer Shed with a new external attack hydrant located near the main vehicle entry to the east of the buildling.

This new hydrant is expected to provide coverage to the Waste Transfer Shed from two lengths of 30 metre hose (60 metres total), allowing for up to 20 metres to a fire appliance from the hydrant outlet and up to 10 metres spray.

4.2.5 Electrical Isolation

The main building switchboard is located externally on the southern side of the building, near the emergency exit door.

4.3 Building Operation

The process in the Waste Transfer Shed is summarised as follows:

1. Comingled household waste is unloaded on the northern side of the shed, filling from the central push wall towards the northern external wall
2. Waste is transferred (lifted or pushed) to the central moving floor, which moves waste towards the compactor feed hopper on the western side of the building
3. Residential waste is transferred from individual vehicles onto the domestic moving floor, which moves waste parallel with the western wall, towards the central moving floor
4. Domestic and commercial waste is combined via the moving floors and released to the feed hopper for the hydraulic plate compactor located below the central overhanging section of the Waste Transfer Shed
5. Waste is compacted via hydraulic plate compactor to A-Double trailer attached to the compactor

5. Bulk Waste Area

5.1 General

The Bulk Waste Area is located to the north of the site, access from the northern internal access road. The Bulk Waste Area is broadly separated into two sections, "Green Waste" to the west and "Inert Waste" to the east.

5.2 Layout and Emergency Equipment

5.2.1 Building Layout

The layout of the Bulk Waste Area is shown in Figure 5.1 below.

Figure 5.1 - Bulk Waste Area Layout – Existing Hydrant Provisions

5.2.2 Fire Brigade Equipment – Existing

The nearest fire hydrants to the Bulk Waste Area are twin-head hydrants connected to the on-site bore pump system, located on the far side of the swale drain and vegetation to the south of the Bulk Waste Area.

5.2.3 Fire Brigade Equipment – Upgrade Works

The fire hydrant system upgrade works will include the provision of a new external attack hydrant on the side of the access road serving the Bulk Waste Area.

Figure 5.2 - Bulk Waste Area Layout – Upgraded Hydrant Provisions

5.3 Bulk Waste Area Operation

The process for the Bulk Waste Area is summarised as follows:

1. Waste is delivered and offloaded at the edge of the appropriate pile (i.e. Green Waste or Inert Waste)
2. Waste is transferred (lifted or pushed) using the on site excavator to compact the pile prior to removal offsite

5.4 Pile Size Limitations – Green Waste

Pile size limitations apply to the Green Waste section of the Bulk Waste Area, as follows, based on recommendations of the DFES Bulk Green Waste Storage Fires Information Note (Sept 2014):

Element	Dimension	Comment
Height	5 metres	
Length	50 metres	
Width	10 metres	
Clearance between piles – Long Side	41 metres	

Table 5.1 - Pile Size Limitations, External Green Waste

6. Emergency Response Procedures

6.1 Recycling Shed – General Fire

6.1.1 General Requirements

In the event of a FIRE, the following procedures shall be followed:

1. ALERT and ASSIST anyone in immediate danger, unless this will put you in danger
2. OBSERVE operation of the FIRE ROVER automatic nozzles to keep clear from potential hose stream
3. IF the fire is in an isolated area AND YOU HAVE BEEN TRAINED, attempt to extinguish with a portable fire extinguisher or fire hose reel
4. NOTIFY the Emergency Response Team – Branch Manager, Emergency Controller, Area Warden
5. CALL 000 and state the following:
    a. Your Name
    b. Type of Incident (e.g. Cardboard fire, Green Waste Fire, General Rubbish Fire)
    c. Site Address – MANDURAH WASTE MANAGEMENT CENTRE, **80 CORSICAN PLACE, PARKLANDS**, nearest corner is Corsican Place and Gordon Road
    d. Any INJURIES
6. SHUTDOWN any operating plant with RED ISOLATION BUTTON
7. ALERT driver at compactor to SHUT DOWN and stand by to move vehicle away from compactor and Recycling Shed
8. FRONT END LOADER OPERATOR
    a. Fire smaller than 2 m^2 – if trained, remove burning material and unload on external concrete hardstand
    b. Fire larger than 2 m^2 – if safe to do so, ensure clearance to other pile exceeds 10 metres
9. Keep clear of emergency personnel and provide assistance when requested.
10. Await instruction from Emergency Response Team.
11. If in doubt, proceed to the MUSTER POINT, taking care to avoid vehicle

6.1.2 Additional Actions – Branch Manager and Emergency Controller

Additional actions to be coordinated and undertaken by the Branch Manager and Emergency Controller:

12. Meet Emergency Services at site entry and provide briefing and copy of relevant Safety Data Sheets
13. Advise Emergency Services that the Recycling Shed is provided with an automatic Fire Rover system and has limited on-site water containment. PORTABLE BUNDING WILL BE REQUIRED IF FIRE HYDRANTS ARE USED.
14. Notify neighbouring property – Water Corporation – 13 13 75 – Site name: Gordon Road Waste Water Treatment Works
15. Initiate Evacuation where required.
16. Commence Roll Call for staff and ensure all public and off-site personnel are accounted for. NOTIFY FIRE BRIGADE if any staff or visitors are unaccounted for.

6.1.3 Post Emergency Actions

Following all-clear from Emergency Services and Chief Warden / Area Warden, the following actions are required:

1. Debrief staff and confirm contacts for Employee Assistance Program (Lifeworks), Work Health and Safety (Comcare)
2. Initiate contact with Fire Rover to ensure that system is online and response procedures are underway for refill
3. Identify areas or buildings which may recommence operations
4. Barricade affected areas and lock-out associated equipment until repaired
5. Provide assistance to any investigators and emergency responders

6.2 Waste Transfer Shed – General Fire

6.2.1 General Requirements

In the event of a FIRE, the following procedures shall be followed:

1. ALERT and ASSIST anyone in immediate danger, unless this will put you in danger
2. IF the fire is in an isolated area AND YOU HAVE BEEN TRAINED, attempt to extinguish with a portable fire extinguisher or fire hose reel
3. NOTIFY the Emergency Response Team – Branch Manager, Emergency Controller, Area Warden
4. CALL 000 and state the following:
    a. Your Name
    b. Type of Incident (e.g. Cardboard fire, Green Waste Fire, General Rubbish Fire)
    c. Site Address – MANDURAH WASTE MANAGEMENT CENTRE, **80 CORSICAN PLACE, PARKLANDS**, nearest corner is Corsican Place and Gordon Road
    d. Any INJURIES
5. SHUTDOWN any operating plant with RED ISOLATION BUTTON
6. ALERT driver at compactor to SHUT DOWN and stand by to move vehicle away from compactor and Recycling Shed
7. FRONT END LOADER OPERATOR
    a. Fire smaller than 2 m^2 – if trained, remove burning material and unload on external concrete hardstand
    b. Fire larger than 2 m^2 – if safe to do so, ensure clearance to other pile exceeds 10 metres
8. Keep clear of emergency personnel and provide assistance when requested.
9. Await instruction from Emergency Response Team.
10. If in doubt, proceed to the MUSTER POINT, taking care to avoid vehicle

6.2.2 Additional Actions – Branch Manager and Emergency Controller

Additional actions to be coordinated and undertaken by the Branch Manager and Emergency Controller:

11. Meet Emergency Services at site entry and provide briefing and copy of relevant Safety Data Sheets
12. Notify neighbouring property – Water Corporation – 13 13 75 – Site name: Gordon Road Waste Water Treatment Works
13. Initiate Evacuation where required.
14. Commence Roll Call for staff and ensure all public and off-site personnel are accounted for. NOTIFY FIRE BRIGADE if any staff or visitors are unaccounted for.

6.2.3 Post Emergency Actions

Following all-clear from Emergency Services and Chief Warden / Area Warden, the following actions are required:

15. Debrief staff and confirm contacts for Employee Assistance Program (Lifeworks), Work Health and Safety (Comcare)

16. Identify areas or buildings which may recommence operations
17. Barricade affected areas and lock-out associated equipment until repaired
18. Provide assistance to any investigators and emergency responders

6.3 Green Waste Area – General Fire

6.3.1 General Requirements

In the event of a FIRE, the following procedures shall be followed:

1. ALERT and ASSIST anyone in immediate danger, unless this will put you in danger
2. NOTIFY the Emergency Response Team – Branch Manager, Emergency Controller, Area Warden
3. CALL 000 and state the following:
    a. Your Name
    b. Type of Incident (e.g. Cardboard fire, Green Waste Fire, General Rubbish Fire)
    c. Site Address – MANDURAH WASTE MANAGEMENT CENTRE, **80 CORSICAN PLACE, PARKLANDS**, nearest corner is Corsican Place and Gordon Road
    d. Any INJURIES
4. ALERT other people in the area to move away from the fire
5. EXCAVATOR OPERATOR – if available AND IF SAFE TO DO SO
    a. Remove waste materials remote from the fire to create a fire break approx. 6 metres wide
6. OBTAIN and UTILISE portable fire fighting skid if available and trained to do so
7. Keep clear of emergency personnel and provide assistance when requested.
8. Await instruction from Emergency Response Team.
9. If in doubt, proceed to the MUSTER POINT, taking care to avoid vehicle

6.3.2 Additional Actions – Branch Manager and Emergency Controller

Additional actions to be coordinated and undertaken by the Branch Manager and Emergency Controller:

10. Meet Emergency Services at site entry and provide briefing and copy of relevant Safety Data Sheets
11. Notify neighbouring property – Water Corporation – 13 13 75 – Site name: Gordon Road Waste Water Treatment Works
12. Initiate Evacuation where required.
13. Commence Roll Call for staff and ensure all public and off-site personnel are accounted for. NOTIFY FIRE BRIGADE if any staff or visitors are unaccounted for.

6.3.3 Post Emergency Actions

Following all-clear from Emergency Services and Chief Warden / Area Warden, the following actions are required:

14. Debrief staff and confirm contacts for Employee Assistance Program (Lifeworks), Work Health and Safety (Comcare)
15. Identify areas or buildings which may recommence operations
16. Monitor waste pile for potential reignition
17. Provide assistance to any investigators and emergency responders

6.4 Residential Cardboard or Waste Oil Area – General Fire

6.4.1 General Requirements

In the event of a FIRE, the following procedures shall be followed:

1. ALERT and ASSIST anyone in immediate danger, unless this will put you in danger
2. IF the fire is in an isolated area AND YOU HAVE BEEN TRAINED, attempt to extinguish with a portable fire extinguisher or fire hose reel
3. NOTIFY the Emergency Response Team – Branch Manager, Emergency Controller, Area Warden
4. CALL 000 and state the following:
    a. Your Name
    b. Type of Incident (e.g. Cardboard fire, Green Waste Fire, General Rubbish Fire)
    c. Site Address – MANDURAH WASTE MANAGEMENT CENTRE, **80 CORSICAN PLACE, PARKLANDS**, nearest corner is Corsican Place and Gordon Road
    d. Any INJURIES
5. OBTAIN and UTILISE portable fire fighting skid if available and trained to do so
6. Keep clear of emergency personnel and provide assistance when requested.
7. Await instruction from Emergency Response Team.
8. If in doubt, proceed to the MUSTER POINT, taking care to avoid vehicle

6.4.2 Additional Actions – Branch Manager and Emergency Controller

Additional actions to be coordinated and undertaken by the Branch Manager and Emergency Controller:

9. Meet Emergency Services at site entry and provide briefing and copy of relevant Safety Data Sheets
10. Notify neighbouring property – Water Corporation – 13 13 75 – Site name: Gordon Road Waste Water Treatment Works
11. Initiate Evacuation where required.
12. Commence Roll Call for staff and ensure all public and off-site personnel are accounted for. NOTIFY FIRE BRIGADE if any staff or visitors are unaccounted for.

6.4.3 Post Emergency Actions

Following all-clear from Emergency Services and Chief Warden / Area Warden, the following actions are required:

13. Debrief staff and confirm contacts for Employee Assistance Program (Lifeworks), Work Health and Safety (Comcare)
14. Identify areas or buildings which may recommence operations
15. Barricade affected areas and lock-out associated equipment until repaired
16. Provide assistance to any investigators and emergency responders

7. External Impacts from Fire Event

7.1 General

This section outlines the anticipated external impacts of critical fire events in terms of water runoff and smoke production. The water run-off routes are based on the Stormwater Management Plan for the site as shown in Figure 7.1, based on compliance with the Licence Conditions, which includes requirements for stormwater and wastewater treatment.

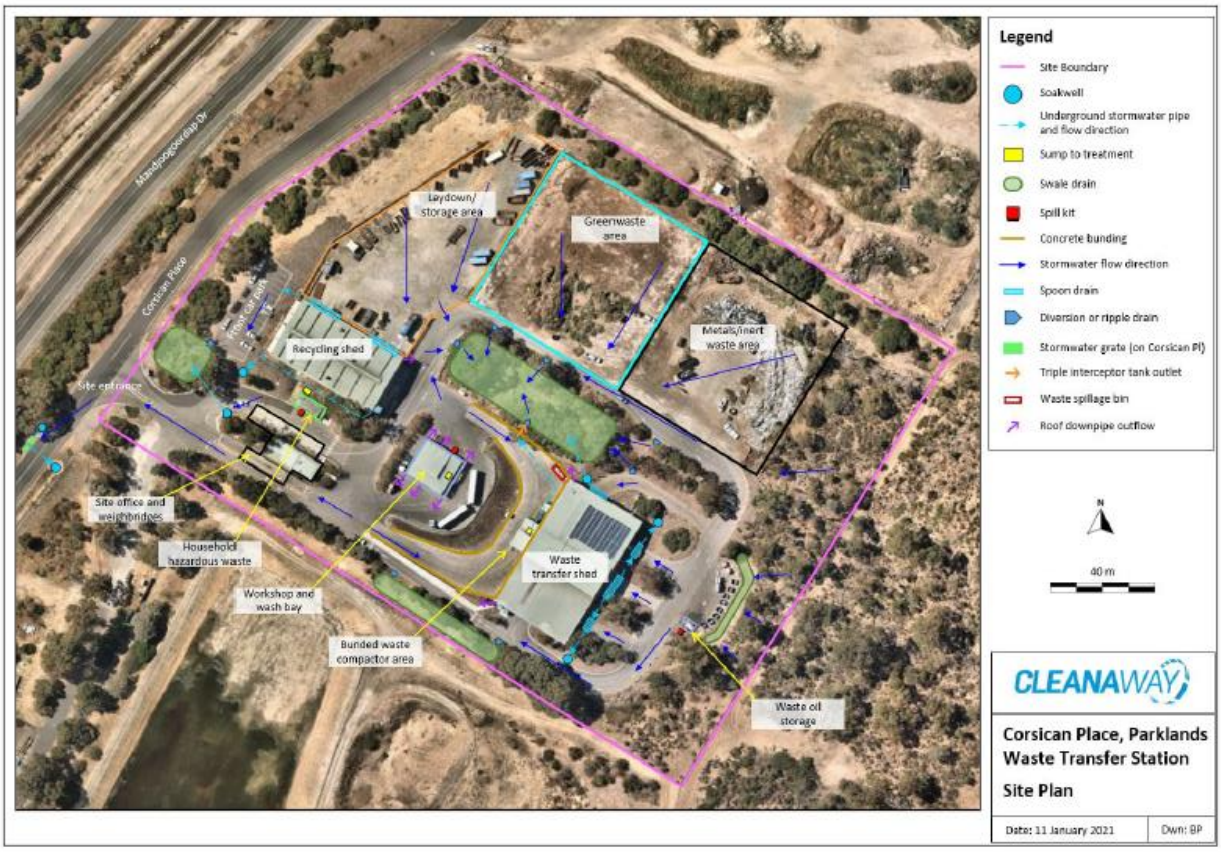


Figure 7.1 - Stormwater Run-off Plan

7.2 Recycling Shed

7.2.1 Water Run-off

In the event of a fire in the Recycling Shed, fire water will primarily be from carbonaceous solids (paper, cardboard), with limited contaminants. The Fire Rover system includes a biodegradable water additive to provide fire extinguishment using on small liquid quantities with response and extinguishment expected to occur prior to fire brigade arrival.

The Fire Rover system includes limited on-site water and additive storage (approx. 3,700 litres combined), which is to be contained by the push walls and fixed bunding / mountable kerbing. Based on the full volume from the Fire Rover system, the water depth in the tipping area is expected to be less than 10 mm, however a bund height of 100 mm is to be provided, comprising fixed elements or mountable kerbing, as shown in Figure 3.1.

In the event of an emergency where the Fire Brigade use on-site attack hydrants to supplement the Fire Rover system, the bunding is expected to contain approximately 45 minutes of fire fighting water applied at a rate of 20 L/s (hydrant system design flow rate under boost conditions). Emergency response procedures include the requirement for the additional

actions by the Branch Manager to advise the Emergency Services that the building will contain a limited duration of fire fighting water and that portable bunding is to be put in place.

7.2.2 Smoke Spread

In the event of a fire in the Recycling Shed, smoke will be primarily relieved via the door openings and unsealed openings in the building structure. External smoke movement will be governed by the prevailing wind. Monitoring of smoke and combustion products may be undertaken by DFES or DWER at the discretion of the emergency services.

Significant smoke production is not expected based on operation of the Fire Rover fixed fire suppression system.

7.3 Waste Transfer Shed

7.3.1 Water Run-off

In the event of a fire in the Waste Transfer Shed, fire water run-off will occur via openings in the floor to the bunded compactor area below, with partial containment by the central lowered pit section. Additional fire water run-off will be diverted via grated drains in the vehicle entry doors on the northern and eastern sides, which discharge to soakwells at the south and north, which subsequently divert to the central swale on site (north of the building) or via the southern access road.

Fire water run-off which discharges to the lower bunded waste compactor area discharges via a treatment sump, which includes a triple-interceptor with 70 kL storage tank. In the event of a fire in the Waste Transfer Shed, additional fire water run-off will accumulate in the lowered hardstand area, which is considered to provide sufficient volume to contain fire water run-off during an emergency to preventing overland run-off towards Corsican Place.

8. Prevention and Preparedness

8.1 Inspections and Maintenance

Regular inspections of the site are to be carried out to confirm the following requirements are satisfied, including maintenance of fire safety equipment in accordance with the requirements of AS 1851:2012:

Fire and Safety Equipment

- Maintenance and testing of the Fire Rover system to be undertaken in accordance with the supplier's recommendations. In the event that the Fire Rover system is offline, operations within the Recycling Shed are to be paused.
- Fire hose reels are in place and accessible
- Portable fire extinguishers are in place and accessible
- Emergency exit signs are operational
- Spill kits are located in the required locations and are fully stocked
- Fire hydrants are tagged and maintained
- Fire hydrant system pumps are online and ready
- Fire hydrant pump fuel tanks are at least ¾ full

Building and General Site Features

- Doorways are clear and open freely
- Ensure storage limits and markings are in place and visible
- Ensure compactors are clear of blockages and EMERGENCY STOP buttons are accessible
- Ensure Safety Data Sheets are located at the site entry
- Site is secure

8.2 Site Access

Access to the site is to be controlled via the Weighbridge and site office.

Site visitors and personnel who have not been inducted shall be escorted at all times, except when moving to designated public drop-off areas.

8.3 Staff Training and Drills

Site staff shall be provided with emergency awareness training, at commencement with refresher within six months of starting on site. Training shall include primary training in the use of on site emergency equipment, portable fire extinguishers, fire blankets, fire hose reels, spill response kits, and the location of emergency shut-off points.

Additional training applies to Emergency Response Team members, including additional responsibilities and contact requirements in the event of an emergency.

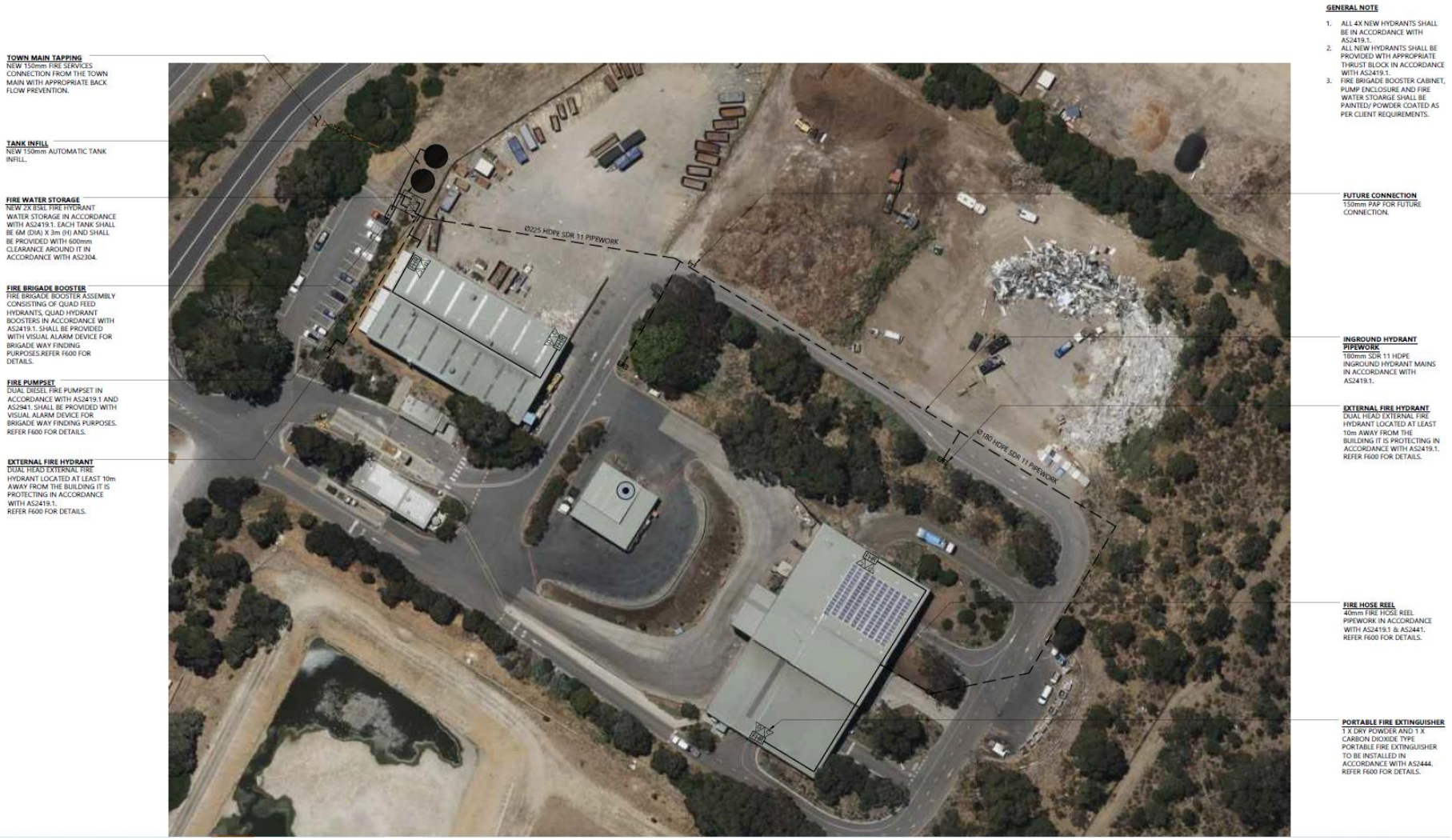
Emergency response drills shall be undertaken on a six-monthly basis, including emergency alarm testing and responses, and evacuation times. Emergency response drills shall include different emergency scenarios and locations. Post-drill debriefs shall be carried out, with the date, time, and nature of the drill recorded and retained on site.

8.4 Review

This Fire & Emergency Management Plan shall be reviewed every three years, when change to the function or use of the site, or when change in key personnel occurs, including Branch Manager, Emergency Controller and Area Warden.


Appendices

Appendix A Proposed Fire Hydrant System Upgrade



REVN	DESCRIPTION	DATE	CHKD
T3	TENDER ISSUE	18.07.24	CM
T2	TENDER ISSUE	05.07.24	CM
T1	TENDER ISSUE	05.06.24	CM

TENDER ISSUE

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CLIENT
CITY OF MANDURAH

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PROJECT
MANDURAH WASTE MANAGEMENT
FIRE INFRASTRUCTURE UPGRADE
LOT 400, 56 CORSICAN PLACE, PARKLANDS WA 6180
FIRE SERVICES

DRAWING
PROPOSED SITE PLAN

DRAWING IS NOT FOR CONSTRUCTION. DRAWING IS INTENDED TO CAPTURE THE SCOPE ONLY AND IS NOT TO REPLACE WORKSHOP DRAWINGS OR BE USED TO DEFINE FINAL DIMENSIONED LAYOUTS FOR INSTALLATION. DO NOT SCALE. REFER TO FIGURED DIMENSIONS - IN mm UNLESS OTHERWISE STATED.

Scale	Drawn: AMA	No. In Set	Date
1:500	Design: AMA Review: CM	3 of 4	MAY 2024
Orig. Size	Drawing no.		Revision
A1	LCE101325-F200		T3

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