



Licence number	L9008/2016/1
Licence holder	Community Greenwaste Recycling Pty Ltd
ACN	607 612 073
Registered business address	Level 1, 72 Marine Terrace FREMANTLE WA 6160
DWER file number	DER2016/002200-1
Duration	01/02/2019 to 02/12/2025
Date of amendment	28/04/2021
Premises details	Community Greenwaste Recycling Lease Area 5, 7, and 9 190 Flynn Drive, Neerabup Legal description - Part Lot 5 on Diagram 91435 Certificate of Title Volume 2083 Folio 241 As shown by the premises maps in Schedule 1 and defined by the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production / design capacity
Category 61A: Solid waste facility: premises (other than premises within Category 67A) on which solid waste is produced on other premises is stored, reprocessed, treated, or discharged onto land.	35,000 tpa
Category 67A: Compost manufacturing and soil blending: premises on which organic material (excluding silage) or waste is stored pending processing, mixing, drying or composting to produce commercial quantities of compost or blended soils	20,000 tpa
Category 13: Crushing of building material: premises on which waste building or demolition material (for example, bricks, stones or concrete) is crushed or cleaned.	15,000 tpa

This licence is granted to the licence holder, subject to the attached conditions, on 28 April 2021, by:

A/MANAGER, WASTE INDUSTRIES

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

[L9008/2016/1](#)

Licence history

Date	Reference number	Summary of changes
15/12/2016	W5987/2016/1	Works approval issued
01/02/2019	L9008/2016/1	Licence issued.
12/11/2019	L9008/2016/1	Amendment to extend operational hours.
23/11/2020	L9008/2016/1	Licence administrative renewal – date extended to 2/12/2025
28/04/2021	L9008/2016/1	Licence amended to modify premises boundary and include Category 13 and 67A activities

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:

Infrastructure and equipment

- The Licence Holder must ensure that the infrastructure and equipment specified in Column 1 of Table 1 is maintained in good working order and operated in accordance with the requirements specified in Column 2 of Table 1.

Table 1: Infrastructure and equipment

Column 1	Column 2
Site infrastructure and equipment	Operational requirements
1. Limestone hardstand	300mm thick with a permeability $\leq 1 \times 10^{-6}$ m/s and maintained in a manner to ensure all leachate and stormwater runoff is directed to the stormwater catchment basin and sediment trap.
2. Stormwater catchment basin with adjoining sediment trap	(a) HDPE lined to achieve a minimum permeability $\leq 2.8 \times 10^{-11}$ m/s; (b) Freeboard of 0.5 m to be maintained at all times; (c) Sediment trap must be maintained free of accumulated sludge; and (d) Sediment trap must be inspected weekly and cleaned out as required (minimum of once a month).
3. Hardstand perimeter bund wall	Minimum 500 mm height from the operational hardstand around the perimeter of the premises.
4. Shredder, screener, and crusher	(e) Maintained in accordance with manufacturers recommendations; (f) Utilised in conjunction with dust suppression measures, fitted where possible, such as water sprays; and (g) If shredding and/or crushing and/or screening equipment does not contain dust suppression fittings, alternative dust suppression is to be applied whilst shredding and or crushing activities take place.
5. Excavator	Maintained in accordance with manufacturers recommendations
6. Front end loader	Maintained in accordance with manufacturers recommendations
7. Perimeter ring main, free standing sprinkler system and water cart	Maintained in working order to achieve dust suppression capable of preventing windblown dust crossing the boundary of the premises subject to this licence.

Column 1	Column 2
Site infrastructure and equipment	Operational requirements
8. Firefighting equipment <ul style="list-style-type: none"> - 10 kL water truck; - Premises water extraction bore; - 60 kL water tank and submersible pump; - 400 kL dam with electrical pump and genset power backup; - Six large reticulated freestanding sprinklers reaching no less than 50 meters; and - Lay flat firefighting hoses connectable to the premises ring main and associated firefighting nozzles. 	Maintained in a manner to remain operational and combat fires occurring on the premises.

Waste acceptance and management

2. The Licence Holder must only allow waste to be accepted onto the Premises if:
- (a) it is of a type listed in Table 2; and
 - (b) the quantity accepted is below any limit specified in Table 2; and
 - (c) it meets any specification listed in Table 2.

Table 2: Waste acceptance

Waste type	Quantity limit	Specifications
Greenwaste	20,000 tonnes-per annual period	Treated timbers must not be accepted.
	A maximum combined total (unprocessed and processed) of 4,000 tonnes is stored on the premises at any given time.	
Clean fill	15,000 tonnes per annual period	Waste containing visible asbestos or ACM shall not be accepted
Inert Waste Type 1	15,000 tonnes per annual period	Construction and demolition waste only (as defined in the Landfill Definitions). Waste containing visible asbestos or ACM shall not be accepted.

3. The Licence Holder must ensure that where waste does not meet the specifications in Table 2 that it is removed from the Premises by the delivery vehicle, or where that is not possible, separated out and stored in a sealed, enclosed container and removed to an appropriately authorised facility for disposal within 48 hours of receipt.

Asbestos management

4. The Licence Holder must not accept waste onto the premises where it contains, or is suspected to contain, visible asbestos or ACM.
5. The Licence Holder must maintain clear visible signage specifying “No Asbestos” at all entries to the premises.
6. The Licence Holder must obtain a signed declaration from the supplier of the waste with each delivery that:
 - (a) specifies the details of the:
 - (i) waste (type and description);
 - (ii) source of the waste load;
 - (iii) name of the waste carrier;
 - (iv) registration number of the delivery vehicle; and
 - (v) date of delivery;
 - (b) sets out the quantity being delivered; and
 - (c) declares that the load does not contain any asbestos or ACM.
7. The Licence Holder must:
 - (a) visually inspect all loads of waste on arrival at the premises prior to acceptance, to determine the risk of a load containing asbestos and/or ACM; and
 - (b) classify each load as either a ‘low risk load’ or a ‘high risk load’, in accordance with the risk classification procedure provided in Schedule 3.
8. Upon acceptance of the waste, the Licence Holder must direct each classified load to an unloading area designed and constructed to ensure the classified load will not mix with other waste prior to further inspection.
9. The Licence Holder must:
 - (a) visually inspect each ‘low risk load’ while the material is being unloaded, and continue to do so at all stages of the storage, sorting, and screening process, to determine whether any asbestos and/or ACM can be identified;
 - (b) where asbestos and/or ACM is suspected or identified in a ‘low risk load’, reclassify that load as a ‘high risk load’; and
 - (c) visually inspect and handle each ‘high risk load’ in accordance with the procedure provided in Schedule 3.
10. The Licence Holder must ensure that testing of all Products is undertaken in accordance with the Product testing procedures specified in Schedule 4.
11. The Licence Holder must ensure that Products are only supplied to customers where they have been tested in accordance with Condition 10 and shown to conform with the product specification of 0.001% Asbestos weight for weight (w/w) for Asbestos content (in any form) within any recycled Products.
12. The Licence Holder must maintain accurate and auditable records of all loads that have been inspected and suspected or found to contain asbestos and/or ACM showing the source (person) and originating site (location), and actions taken to address the issue with the source of the load.

Waste Processing

13. The Licence Holder must ensure that wastes accepted onto the Premises are only subjected to the processes set out in Table 3 and in accordance with any process

limits and operational requirements described in that table.

Table 3: Waste processing

Waste type	Process	Operational requirements
Greenwaste	Receipt, handling, sorting (mechanical and by hand), processing (shredding/ grinding/mulching/ composting) and storage, prior to removal offsite.	<ul style="list-style-type: none"> (a) Mechanical waste operations taking place between the hours of 0700 and 1700 excluding Sundays and Public Holidays; (b) Operations between the hours of 0600 and 0700 hours, excluding Sundays and Public Holidays, limited to the receipt of green waste only; (c) All waste acceptance, processing and storage is to take place on 300 mm limestone hardstand with a permeability $\leq 1 \times 10^{-6}$ m/s and within a 500 mm high perimeter bund; (d) Greenwaste stockpiles, unprocessed or processed, must not cover perimeter bunding or extend beyond the boundary of the premises; (e) Only 1 shredding / grinding unit to be operating at any given time; (f) All shredding / grinding operations to take place behind a 4 meter high bund wall (constructed of processed or unprocessed greenwaste material) located on the southern side of the operation taking place; (g) All greenwaste material to be maintained at $\geq 40\%$ moisture content; (h) All greenwaste material to be maintained at $\leq 70^{\circ}\text{C}$; (i) Firefighting equipment identified in Condition 1, Table 1 (8) to be available and maintained in an operational order to achieve the intended purpose of the equipment; (j) 5 metre wide access roads are to be maintained around stockpiles at all times; and (k) Dust suppression is to be carried out on an 'as needed' basis to maintain compliance with Condition 16 of this licence.
Inert waste type 1 and clean fill	Acceptance, storage and processing (crushing and screening), prior to removal from site	<ul style="list-style-type: none"> (a) Operations to only take place between the hours of 0700 and 1700, excluding Sundays and Public Holidays; (b) All loads to be wet down prior to unloading; (c) No more than 15,000 tonnes per year to be crushed and screened; (d) Stockpiles must not exceed 6m in height from the base of the stockpile; (e) Crushing unit must not be operated at the same time as the shredder and/or grinder; (f) All waste acceptance, processing and

Waste type	Process	Operational requirements
		storage is to take place on 300 mm limestone hardstand with a permeability $\leq 1 \times 10^{-6}$ m/s and within a 500 mm high perimeter bund; and (g) All screening and/or crushing operations to take place behind a 4 meter high bund wall (constructed of processed or unprocessed greenwaste material / or acceptable inert material) located on the southern side of the operation taking place.

14. The Licence Holder must ensure that composting only occurs within the dedicated composting hardstand area as depicted in Schedule 1.
15. The Licence Holder must manage the compost and mulch stockpiles such that:
 - (a) Moisture levels in mulch/compost stockpiles are maintained between 40 to 60 per cent;
 - (b) Compost and mulch stockpiles are turned so that the outer material of the stockpile is turned to the inside of the stockpile, so the whole mass is subjected to a minimum of three turns with the internal temperature reaching a minimum of 55°C for three consecutive days before each turn;
 - (c) Leachate from the stormwater catchment basin is not to be added to mulch/compost stockpiles post pasteurisation;
 - (d) Mulch/compost stockpiles do not exceed 50 metres in length, 10 metres in width and 5 metres in height; and
 - (e) Mulch/compost stockpiles be separated by at least 5 metres of clear ground.

Emissions and Discharges

16. The Licence Holder must ensure that no visible dust generated from the primary activities crosses the boundary of the premises.
17. The Licence Holder must ensure that:
 - (a) Fires are not deliberately started on the premises; and
 - (b) All fires are promptly managed, extinguished and reported to DWER within 24 hours of the event taking place.
 - (c) By 1 August 2021, the premises Fire Management Plan must be reviewed by a suitably qualified professional in the field of fire management and firefighting and provided to the CEO.

Monitoring

18. The Licence Holder must record the total amount of waste accepted onto and removed from the premises, for each waste type listed in Table 4, in the corresponding unit, and for each corresponding time period, as set out in Table 4.

Table 4: Monitoring of inputs and outputs

Column 1	Column 2	Column 3	Column 4
Waste type		Unit	Frequency
Waste inputs	Each waste type detailed in Table 2	tonnes	Each load arriving at the premises
Waste outputs	Waste type as depicted in the Landfill Definitions	tonnes	Each load leaving the premises
Other outputs	Compost, mulch, blended soils	tonnes	Each load leaving the premises

19. The Licence Holder must ensure that products are classified according to the product specification and end use(s) as determined by the physical and chemical quality specifications outlined in AS4454 prior to distribution or sale to customers.
20. The Licence Holder must undertake the monitoring in Table 5 according to the specifications in that table.

Table 5: Stockpile monitoring requirements

Monitoring Point Reference	Monitoring location	Parameter	Unit	Frequency	Method
Greenwaste /compost stockpiles	All greenwaste and composting stockpiles	Moisture content ¹	%	Daily	None specified
		Temperature ¹	°C		None specified
Compost/ mulch quality	All compost and mulch stockpiles	Quantity produced ¹	tonnes	continuous	None specified
		As specified within AS 4454	As specified within AS 4454	Each batch, at a minimum rate of one composite sample per 500 tonnes. Each composite sample is made up of 12 subsamples	Sampling and testing in accordance with AS 4454

Note 1: In field non-NATA accredited analysis permitted

Records and reporting

21. The Licence Holder must maintain accurate and auditable Books including the following records, information, reports and data required by this Licence:
 - (a) the calculation of fees payable in respect of this Licence;

- (b) the works conducted in accordance with Condition 1 of this Licence;
- (c) the inspection and maintenance of infrastructure required to ensure that it is kept in good working order in accordance with Condition 1 of this Licence;
- (d) monitoring undertaken in accordance with Conditions 18, 19 and 20 of this Licence;
- (e) complaints received under Condition 22 of this Licence

In addition, the Books must:

- (f) be legible;
- (g) if amended, be amended in such a way that the original and subsequent amendments remain legible and are capable of retrieval;
- (h) be retained for at least 3 years from the date the Books were made; and
- (i) be available to be produced to an Inspector or the CEO.

22. The Licence Holder must record the number and details of any complaints received by the Licence Holder relating to its obligations under this Licence and its compliance with Part V of the EP Act at the Premises, and any action taken by the Licence Holder in response to the complaint. Details of complaints must include:

- (a) an accurate record of the concerns or issues raised, for example a copy of any written complaint or a written note of any verbal complaints made;
- (b) the name and contact details of the complainant, if provided by the complainant;
- (c) the date of the complaint; and
- (d) the details and dates of the actions taken by the Licence Holder in response to the complaints.

23. 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.

24. The Licence Holder must comply with a Department Request, within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.

Definitions

In this licence, the terms in Table 6 have the meanings defined.

Table 6: Definitions

Term	Definition
ACM	Means products or materials (including fragments) that contain asbestos in an inert bound matrix such as cement or resin in a sound condition and in a form that cannot pass through a 7mm x 7mm sieve.
ACN	Australian Company Number
AHD	Australian Height Datum
Amendment Notice	means an amendment granted under s.59 of the EP Act in accordance with the procedure set out in s.59B of the EP Act.
Annual Period	means a 12 month period commencing from 1 February until 31 January of the immediately following year.
Approved form	means the AACR Form template approved by the CEO for use and available via DWER's external website.
AS4454 - 2012	means the Australian Standard AS 4454 <i>Composts, soil conditioners and mulches</i>
AS4964 - 2004	means Australian Standard Method for the Qualitative Identification of asbestos in bulk samples.
ASTM D5092 / D5092M-16	means the ASTM international standard for <i>Standard practice for design and installation of groundwater monitoring wells (Designation: ASTM D5092/D5092M-16)</i> , as amended from time to time.
Asbestos	means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysolite, crocidolite, tremolite and any mixture containing 2 or more of those.
Asbestos fines or fibres (AF)	means includes small asbestos fibre bundles, free asbestos fibres and also ACM fragments that can pass through a 7mm x 7mm sieve.
Books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 or info@dwer.wa.gov.au

Term	Definition
Compliance Report	means a report in a format approved by the CEO as presented by the Licence Holder or as specified by the CEO (guidelines and templates may be available on the Department's website).
Composting Products	means organic products having undergone pasteurisation and fitting a classification as defined in AS 4454.
Condition	means a condition to which this Licence is subject under s.62 of the EP Act.
Construction and demolition waste	means materials in the waste stream which arise from construction, refurbishment or demolition activities.
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.
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Licence Holder in writing and sent to the Licence Holder's address for notifications, as described at the front of this Licence, in relation to: <ul style="list-style-type: none"> (a) compliance with the EP Act or this Licence; (b) the Books or other sources of information maintained in accordance with this Licence; or (c) the Books or other sources of information relating to Emissions from the Premises.
DER Asbestos Guideline	means document titled " <i>Guidelines for managing asbestos at construction and demolition waste recycling facilities</i> ", published by the Department of Environment and Conservation, as amended from time to time
Discharge	has the same meaning given to that term under the EP Act.
DWER	Department of Water and Environmental Regulation.
Emission	has the same meaning given to that term under the EP Act.
Environmental Harm	has the same meaning given to that term under the EP Act.
EP Act	means the <i>Environmental Protection Act 1986</i> (WA).
EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA).
Fibrous Asbestos (FA)	Means friable asbestos material, such as severely weathered ACM and asbestos in the form of loose fibrous material such as insulation products. Friable asbestos is material that is in a degraded condition such that it can be broken or crumbled to a powder form by hand pressure
Greenwaste	Biodegradable waste comprising of 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

Term	Definition
	similar materials and includes any mixture of those materials (not including any timber, wood, or wood products treated or coated with preservatives, biocides, fire retardants, paint, adhesives or binders).
Implementation Agreement or Decision	has the same meaning given to that term under the EP Act.
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
Landfill Definitions	means the Landfill Waste Classification 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 s.57 of the EP Act, subject to the Conditions.
Licence Holder	refers to the occupier of the premises being the person to whom this Licence has been granted, as specified at the front of this Licence.
Material Environmental Harm	has the same meaning given to that term under the EP Act.
PLM	means standard polarized light microscopy method
Pollution	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Licence applies, as specified at the front of this Licence and as shown on the map in Schedule 1 to this Licence.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Primary Activities	refers to the Prescribed Premises activities listed on the front of this Licence.
Serious Environmental Harm	has the same meaning given to that term under the EP Act.
Unreasonable Emission	has the same meaning given to that term under the EP Act.
Waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Prescribed Premises Boundary



Figure 1: Prescribed Premises boundary (as shown by the bold black line)

Site Layout

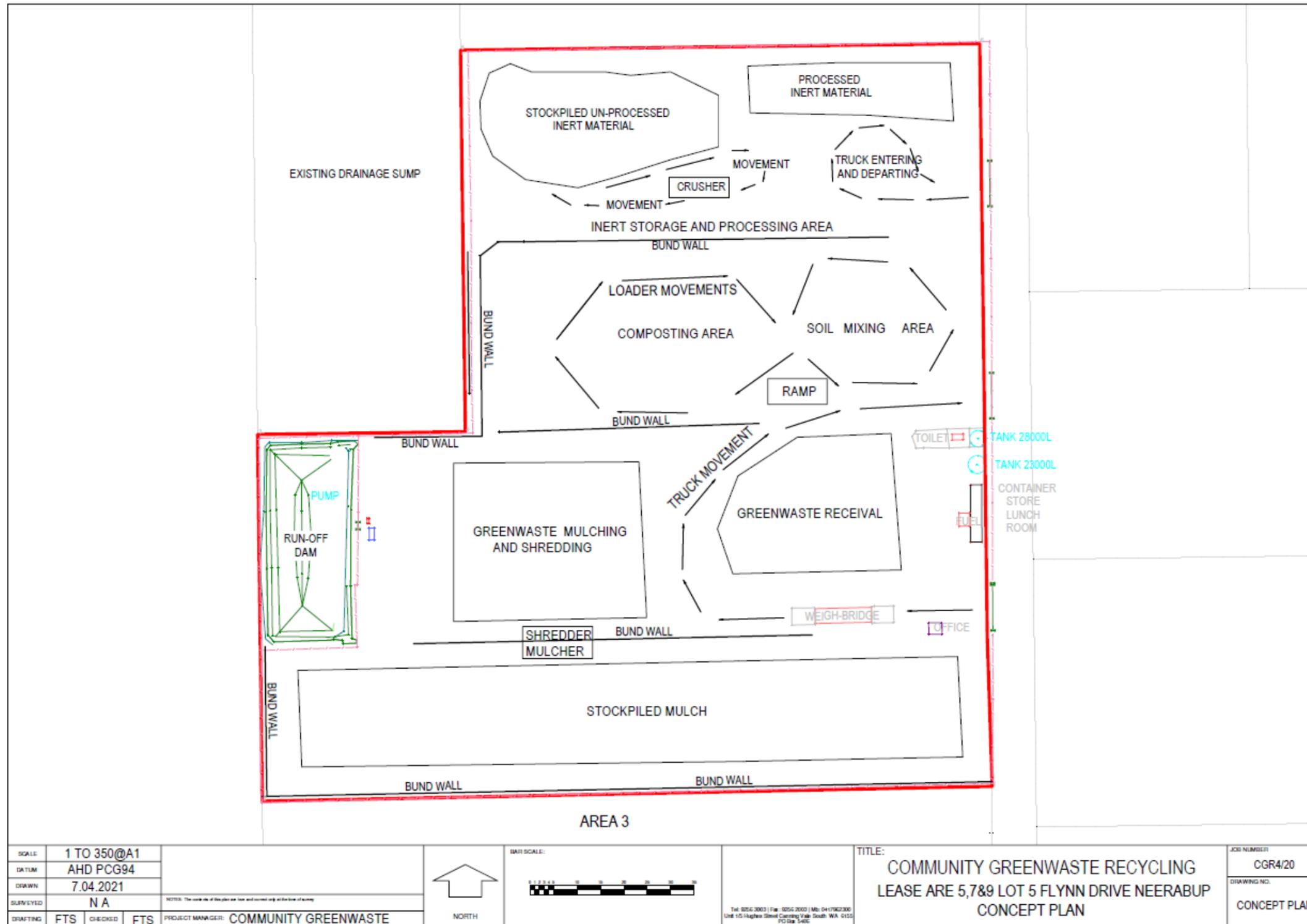


Figure 2: Site layout (prescribed premises boundary shown in red)

Schedule 2: Premises boundary

The Premises boundary is defined by the coordinates in Table 7.

Table 7: Premises boundary coordinates (GDA 94 Zone 50)

Easting	Northing
386011.81	6494004.4
386163.38	6494001.51
386164.02	6494176.62
386059.3	6494170.9
386058.14	6494091
386009.35	6494088.86

Schedule 3: Asbestos risk classification procedure

To determine the risk of an incoming load containing asbestos or ACM, the gatehouse operator at the premises must establish:

- the source of the load including the site location and if possible, the age of any building or structure from which the waste originated;
- the content / waste types within the load; and
- the type of load.

Where the source of the load can clearly be determined to be a building or structure constructed after 1990 then the load can be considered to represent a low risk of asbestos contamination.

Where the waste originates from a building constructed before 1990 or there is uncertainty over this issue, the risks associated with asbestos in the load must be established in line with the risk classification matrix in Table 8 below.

Table 8: Risk classification matrix

MATERIAL TYPE	TYPE OF LOAD		
	Commercial	Public – utes, cars, and trailers *	Skip bins
Clean concrete (without formwork)	Low	High	High
Clean brick	Low	High	High
Clean bitumen / asphalt	Low	High	High
Mixed construction waste	High	High	High
Mixed demolition waste	High	High	High

* If it is possible to view the entire load of incoming construction and demolition material (such as in the case of a small trailer with a shallow load), then consideration may be given to classifying those loads as 'low risk'.

Schedule 4: Asbestos monitoring and testing

Product testing and supply

The testing procedures detailed in this Schedule have application to the three main recycled products:

1. Recycled drainage rock 20-27 mm;
2. Recycled sand, screened to <10 mm; and
3. Recycled road-base, <19mm.

ACM and FA are subject to visual inspection and sampling procedures since they are larger in size (>7 mm) and AF (<7 mm) is assessed by submitting samples for laboratory analysis.

Recycled products may be sampled from conveyors or stockpiles. Whichever approach is adopted, the operator will need to ensure that they have appropriate systems in place to allow them to identify where in the product stockpiles each sample is from to allow further testing or separation to occur if required.

Stockpile inspection and sampling

- In the case of recycled drainage rock and recycled road-base a visual inspection should be undertaken in a systematic grid fashion over any new stockpile material to identify any suspect asbestos material.
- No sampling is required for recycled drainage rock, other than to determine by laboratory analysis whether a suspect fragment is asbestos.
- For recycled road-base and screened sand, sampling is necessary and must be spread evenly over the whole stockpile surface or samples may be taken at regular intervals (as per conveyor sampling) during construction of the stockpile. Suspect ACM or areas must be targeted for sampling.
- Sampling of road base and screened sand products must occur at a minimum rate of 40 locations per 4000 tonnes or 14 samples per 1000 m³ of product.

Conveyor sampling

- Sampling of road base and screened sand products must occur at a minimum rate of 1 sample per 70 m³ of a product output. Suspect ACM or areas must be targeted for sampling.

Reduced sampling criteria

Once premises have demonstrated that their procedures are able to consistently produce recycled product that meets the product specification and undertake their activities to a high standard, DWER may authorise a reduced product testing rate including down to 5 locations per 4000 tonnes (1 sample per 600 m³) of product.

Sample treatment

- Each sample collected must be at least 10 litres in volume and then be divided into 2 size fractions (>7 mm and <7 mm) in the field by sieving through a 7 mm screen or spread out for inspection on a contrasting colour fabric. The >7 mm fraction should be examined for any suspect ACM and this be retained to calculate the level of contamination.
- The <7 mm fraction will need to be a minimum 500 mL, be wetted, and submitted for laboratory analysis. This sample size is considered necessary to improve the limit of detection for asbestos in the analysis procedure.

Sample analysis method

- **>7 mm sample fractions –**
 - Asbestos concentrations (ACM and FA) should be calculated in accordance with the methods detailed in section 4.1.7 of Department of Health (DoH), 2009, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. Averaging asbestos levels across the stockpile is not appropriate and asbestos levels within each sample should be reported.
- **<7 mm sample fractions**
 - Each <7 mm sample fraction must be analysed for fibrous FA and AF.
 - Asbestos analysis must be undertaken by an independent NATA certified laboratory and comply with *Australian Standard Method for the Qualitative Identification of asbestos in bulk samples (AS 4964)* or be demonstrated to be able to achieve the equivalent level of results to this Australian Standard.

AS 4964 is currently the only method in Australia that has NATA certification; however, the practicable level of detection for this standard polarized light microscopy method (PLM) and dispersion staining is 0.01% w/w. It is possible however, to measure asbestos contamination at or lower than 0.001% w/w where an increased sample size is used, however DWER recognises that any reporting of concentrations below 0.01% w/w will be outside the conditions set by NATA.

Therefore, to determine whether recycled products meet the product specifications for asbestos content, samples must be a minimum of 500 mL in size. Proponents must adopt one of the following analytical approaches:

1. Detected/non-detected – where any quantity of asbestos is detected by the PLM method it must be assumed, without further analysis, to be in concentrations above the product specification limit of 0.001% w/w. A weight of evidence approach may be adopted i.e. the frequency and occurrence of other positive results in the stockpile can be taken into account to determine whether the stockpile being assessed is considered to meet the product specification or not; or
2. Where any quantity of asbestos is detected by the PLM method, the sample is subject to further testing in the form of a semi-quantitative method with a lower level of detection for asbestos. Either of the following methods are considered acceptable by DWER:
 - The extraction and weighing of fibre bundles or fibre cement material from the total sample; and
 - Measuring the width and length (i.e. volume) of individual fibre by Phase Contrast Microscopy and calculating the weight of fibres in the extracted sub-sample.

Interpreting inspection and sampling results

- If the visual inspection, sieve sample or analytical results identify asbestos above or possibly above the 0.001% w/w criterion, then that stockpile or product process should be deemed potentially contaminated and considered for off-site disposal as Special Waste Type 1, or subject to further actions to remediate it or to demonstrate its acceptability by further assessment. A record should be made of the decision-making and action taken (e.g. off-site disposal, further assessment undertaken etc.) in relation to that stockpile.
- In addition to the above, where asbestos is identified above or possibly above the 0.001% w/w criterion, an investigation into the likely cause for the presence of asbestos in the product should be undertaken and measures implemented to prevent a reoccurrence. A record of the investigation and its findings together with the details of any preventative measures implemented at the site should be made.
- As a guide, in the case of recycled drainage rock identification of a piece of ACM or FA per 10 m² of surface would be deemed to exceed the specification for that area, and for the whole stockpile if repeated in 2 or more other separate areas. A single fragment exceedance can be considered an isolated occurrence in the absence of other contamination evidence and the stockpile allowed for beneficial use. If there is multiple contamination only of a localised area then that area can be excavated to the extent of any visible asbestos and then the remainder of the stockpile considered to be suitable for use.
- For laboratory analysis it is important that each result be considered on its own merits in regard to the asbestos control specification and that there is no averaging across samples. In the case of a single exceedance at a level less than 0.01% w/w, the

stockpile (nominally 4000 tonnes) may not be deemed contaminated if repeat samples of immediately adjacent areas do not demonstrate specification exceedances.

- The same approach as indicated in the preceding paragraph can be applied to the results of the >7 mm sieve sampling in regard to the recycled sand material and roadbase. In this case a 1 cm³ fragment of ACM or FA would be deemed to exceed the specification for a 10 L sample.
- It should be noted that specification exceedances in regard to different assessment methods for the same type of stockpile should not be viewed in isolation from each other.