Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L8872/2014/1
Licence holder	Shire of Ashburton
Registered business address	Lot 246 Poinciana Street TOM PRICE WA 6751
DWER file number	DER2014/003175
Duration	30/03/2015 to 29/03/2027
Date of issue	26/03/2015
Date of amendment	23/07/2024
Premises details	Onslow Waste Transfer Station Lot 332, Onslow Road, Onslow 6710 Legal description - Lot 332 on Deposited Plan 402361 Certificate of Title Volume LR3169 Folio 712

Prescribed premises category description (Schedule 1, ***Environmental Protection Regulations 1987***)	**Assessed production / design capacity**
Category 13 - Crushing of building material: premises on which waste building or demolition material (for example, bricks, stones or concrete) is crushed or cleaned.	1,500 tonnes per annual period
Category 57: Used tyre storage (general): premises (other than premises within category 56) on which used tyres are stored.	500 tyres (at any one time)
Category 62: Solid waste depot: premises on which waste is stored or sorted, pending final disposal or re-use, other than in the course of operating: (a) a refund point (as defined in the Waste Avoidance and Resource Recovery Act 2007 section 47C(1)) (a refund point); or (b) a facility or other place (an aggregation point) for the aggregation of containers that have been returned to refund points until those containers are accepted for processing or disposal.	15,000 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 23 July 2024, by:

Digitally signed by Adam Green
Date: 2024.07.23 14:53:53 +08'00'

Adam Green
A/MANAGER, WASTE INDUSTRIES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
26/03/2015	L8872/2014/1	Licence granted.
02/09/2019	L8872/2014/1	Licence amended to: • extended licence expiry date from 29 March 2020 to 28 March 2025 • increase the time limit for which putrescible waste may be stored onsite from 72 to 96 hours.
23/07/2024	L8872/2014/1	Amendment for the addition of category 13 crushing activities at the premises, update conditions for fugitive dust emissions and stormwater evaporation pond permeability specifications.

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

1. The licence holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
Leachate Pond	a) HPDE lined to achieve a permeability of less than $1x10^{-9}$ m/s or equivalent b) Overtopping of the pond does not occur; c) A freeboard equal to, or greater than, 300 mm is maintained; and d) Integrity of the containment infrastructure is maintained.	As depicted in Schedule 1, Figure 1 (Map of the boundary of the prescribed premises).
Stormwater Evaporation Pond	a) Overtopping of the pond does not occur; b) A freeboard equal to, or greater than, 300 mm is maintained; c) Integrity of the containment infrastructure is maintained; d) Trapped overflows are maintained on the outlet of ponds to prevent carry-over of surface floating matter; and e) Vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments.	As depicted in Schedule 1, Figure 1 (Map of the boundary of the prescribed premises).
Mobile crusher	Must be maintained in good working order.	N/A – mobile infrastructure
Water cart	Must be maintained in good working order.	N/A – mobile infrastructure

Asbestos Management Plan

2. The licence holder must maintain and implement an Asbestos Management Plan that is consistent with the conditions of this licence and sets out in prescriptive detail:

(a) where asbestos or asbestos containing material (ACM) may be present on the premises at each stage of operations for:

(i) waste acceptance;

(ii) waste processing; and

(iii) crushed C&D waste,

(b) operating procedures and management practices to mitigate the risks from asbestos or ACM at each stage of operations as set out in condition 2(a);

(c) monitoring (including visual inspections), sampling and analysis to identify asbestos contamination at each stage of operations as set out in condition 2(a);

(d) actions to control any asbestos or ACM detected at each stage of operations as set out in condition 2(a);

(e) procedures for annually reviewing and revising the Asbestos Management Plan, and in response to any matters arising from compliance and process audits;

(f) procedures for responding to incidents or emergencies where any asbestos is detected at the premises or within crushed C&D waste;

(g) identification of each person with responsibilities under the Asbestos Management Plan, the person's responsibilities and the training, qualifications and/or experience required for their role, and

(h) recordkeeping requirements in accordance with the conditions of this licence.

Waste acceptance

3. The licence holder must only accept waste onto the premises if:

(a) it is of a type listed in Table 2;

(b) the quantity accepted is below any quantity limit listed in Table 2; and

(c) it meets any specification listed in Table 2.

Table 2: Waste acceptance

Waste type	Waste code	Quantity limit tonnes/year	Specification
Clean fill	N/A	None specified	None specified
Inert Waste Type 2	T140	500 tyres at any one time	Tyres and plastic only
Inert Waste Type 1	N/A	Combined total of up to 15,000 tonnes per annual period	Must not contain visible asbestos or ACM.
Hazardous waste	D221 F100 F120 J100 J120 J130 J160 J170		Waste hydrocarbons, oil and waste based paints, and vehicle batteries
Putrescible waste	N/A		None specified.
Special Waste Type 1	N220		Asbestos and asbestos cement products only.

4. The licence holder must obtain a signed declaration from the supplier of Inert Waste Type 1 (accepted for the purposes of crushing) 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;

(v) date of delivery;

(b) sets out the quantity being delivered; and

(c) declares that the load does not contain any asbestos or ACM.

5. The licence holder must:

(a) visually inspect all loads of Inert Waste Type 1 (accepted for the purposes of crushing) 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 2.

6. The licence holder must ensure that where waste does not meet the waste acceptance criteria set out in condition 3 it is removed from the premises by the 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.

Waste processing and storage

7. 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 storage requirements or process limits described in that Table 3.

Table 3: Waste processing and storage

Waste types	Process	Process limits
Clean Fill	Receipt, handling, and storage prior to disposal.	None specified.
Hazardous waste	Receipt, handling, and storage prior to disposal.	Waste oil is to be stored in the double lined purpose built oil receptacle.
Inert Waste Type 1	Receipt, handling and storage and crushing prior to re-use onsite or disposal	(a) Only bricks, concrete, masonry material, sand and clean fill to be subject to crushing processes; (b) Must not process more than 1,500 tonnes of waste per annual period; (c) Must be maintained in a damp state during mechanical treatment; and (d) Crushing must not occur during high wind conditions.

Waste types	Process	Process limits
Inert Waste Type 2	Receipt, handling and storage prior to re-use or disposal.	(a) No more than 500 tyres to be stored at the premises at any one time; (b) Tyres to be stored in piles of up to 100 units with a 6 m separation distance between piles; (c) Tyre stockpiles must be stored at least 6 m from premises boundary; (d) Tyres must be stacked in an overlapping manner to create a woven or laced arrangement. (e) Vehicle access to the tyre stacks/piles must be maintained on three sides; and (f) Tyres must be collected and removed to an appropriate authorised facility as soon as practicable.
Special Waste Type 1 – Asbestos Waste	Receipt, handling, and storage prior to disposal.	Cement bonded asbestos must be bagged and stored in a clearly labelled and secure container.
Putrescible Waste	Receipt, handling and storage prior to disposal.	(a) Received and sorted within the Putrescible Waste Bunker with hardstand and bunded to prevent run-off; (b) Stored within the Putrescible Waste Bunker and/or within transfer trailers; and (c) Must not be stored onsite for longer than 96 hours

Note 1: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the Environmental Protection (Controlled Waste) Regulations 2004.

Note 2: Additional requirements for the acceptance, handling and storage of dangerous goods are set out in the Dangerous Goods Safety Act 2004 codes of practice.

Note 3: Additional requirements for the acceptance, handling and storage of hazardous waste may apply under the Household Hazardous Waste (HHW) Program and Paintback Scheme.

Processing of Inert Waste Type 1

8. The licence holder must direct each accepted and classified load to an unloading area at the site for further inspection. The unloading area must be appropriately designed and constructed to ensure the waste will not mix with other waste.

9. The licence holder must dampen all classified loads prior to unloading and maintain the waste in a damp state throughout the inspection process using appropriate dust suppression measures.

10. The licence holder must inspect and maintain records for all unloaded waste in accordance with the low risk and high-risk load procedure as outlined in Schedule 2 and Schedule 3.

11. The licence holder must continue to visually inspect waste on the premises at all stages of the storage, sorting and crushing process. Suspect asbestos identified at any stage of the process must be handled in accordance with the high-risk

load procedure outlined in Schedule 3.

12. The licence holder must maintain waste and processed waste on the premises in at least two separate stockpile areas for unprocessed waste, processed waste tested for ACM and:

(a) unprocessed waste and processed waste areas must be kept clearly separated at a minimum 3 m distance;

(b) processed waste tested for ACM and processed waste awaiting testing for ACM must be clearly separated by a minimum 3 m distance OR clearly delineated and separated with impermeable barriers; and

(c) clearly visible and legible signage must be erected on individual stockpiles to clearly identify and delineate tested processed waste, untested processed waste and unprocessed waste.

13. The licence holder must ensure that testing of all crushed C&D waste is undertaken in accordance with the crushed material testing procedures specified in Schedule 4.

14. The licence holder is not authorised to implement a reduced crushed material testing rate as per the “Reduced sampling criteria” section of Schedule 4.

15. The licence holder must ensure that stockpiles of Inert Waste Type 1 do not exceed 5 m in height.

Fencing

16. The licence holder must implement the following security measures at the site:

(a) erect and maintain suitable fencing to prevent unauthorised access to the site; and

(b) ensure that any entrance gates to the premises are securely locked when the premises are unattended; and

(c) undertake regular inspections of all security measures and repair damage as soon as practicable.

17. The licence holder must install and maintain a sign at the entrance to the premises which clearly displays the following information;

(a) hours of operation;

(b) contact telephone number;

(c) warning indicating penalties for people lighting fires; and

(d) list of materials accepted for recycling and the location of where they can be deposited on the premises.

18. The licence holder must implement control measures to prevent infestations of pests, flies and vermin at the premises.

Windblown waste

19. The licence holder must ensure that:

(a) windblown waste is prevented from crossing the premises boundary; and

(b) any windblown waste is collected on at least a weekly basis and appropriately contained.

Fire management

20. The licence holder must ensure that no waste is burnt on the premises.

21. The licence holder must ensure that any unauthorised fire on the premises is extinguished as soon as possible.

Dust emissions

22. The licence holder must ensure that 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 emissions

23. 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.

Stormwater emissions

24. The licence holder must:

(a) take all practicable measures to prevent stormwater run-off becoming contaminated by the activities and operations undertaken at the premises; and

(b) divert all uncontaminated stormwater to the stormwater evaporation pond.

Monitoring

25. The licence holder must undertake the monitoring in Table 4 according to the specifications in Table 4.

Table 4: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Waste inputs	Clean Fill Hazardous Waste Inert Waste Type 1 Inert Waste Type 2 Special Waste Type 1 Putrescible Waste	Tonnes	N/A	Each load arriving at the premises.
	Inert Waste Type 1 (accepted for the purposed of crushing)			Each load crushed at the premises.
Waste outputs	Waste type as defined in the Landfill Definitions.			Each load leaving or rejected from the premises.

Records and reporting

26. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);

(b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised; and

(d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.

27. 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 and (b) of this licence;

(c) all waste loads rejected from the premises;

(d) incoming waste 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;

(e) any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence;

(f) monitoring programmes undertaken in accordance with condition 25 of this licence; and

(g) complaints received under condition 26 of this licence.

28. The licence holder must maintain accurate and auditable records of all crushed C&D waste testing undertaken in accordance with condition 13, including:

(a) findings from the visual inspection of crushed C&D waste stockpiles;

(b) details of the field and laboratory sample sizes;

(c) a statement of limit of detection of the analysis;

(d) results in relation to asbestos detected (positive result exceeding the 0.001% w/w limit) or not;

(e) a description of any asbestos detected;

(f) an estimate of the concentration of asbestos detected; and

(g) actions taken to address any processed waste stockpiles that do not conform to the crushed C&D waste specification.

29. The books specified under condition 27 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the licence holder for the duration of the licence; and

(d) be available to be produced to an inspector or the CEO as required.

Reporting

30. 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 an Annual Audit Compliance Report in the approved form by no later than 31 March in each year.

31. The licence holder must:

(a) prepare an environmental report that provides information in accordance with Table 5 for the preceding two annual periods, and

(b) submit the environmental report to the CEO by 31 March 2025 and biennially thereafter.

Table 5: Environmental reporting requirements

Condition	Requirement
N/A	A summary of any failure or malfunction of any pollution control equipment or any incidents that occurred during the annual period and any related action taken.
N/A	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution
10, 11 and 27(c)	A summary of any loads that were inspected and suspected or found to contain asbestos or ACM.
25 and 28(c)	Monitoring of inputs and outputs; including a summary of any rejected loads during the reporting period.
28	A summary of the crushed C&D waste monitoring results, including the following information: (i) the total number of samples collected; (ii) the number of samples that conformed to the crushed material specification; (iii) the number of samples that did not conform to the crushed material specification; (iv) the outcome of any investigations or actions taken to address any processed waste stockpiles that did not conform to the crushed material specification; and (v) field sampling records and laboratory certificates for any samples that did not conform to the crushed material specification.
26	A summary of complaints, including the information required to be recorded by the condition

Definitions

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

Table 6: Definitions

Term	Definition
Acceptance Criteria	has the meaning defined in Landfill Definitions.
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).
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 immediately following year.
Approved form	means the Annual Audit Compliance Report (AACR) form template approved by the CEO for use and available via DWER's external website.
AS 4964	means *Australian Standard Method for the Qualitative Identification of asbestos in bulk samples* published by Standards Australia.
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 fibres	has the meaning defined in the Guidelines for Assessment, Remediation and Management of Asbestos Contaminated Sites, Western Australia, (DOH, 2009).
books	has the same meaning given to that term under the EP Act.
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
classified load	means a load that has been classified based on the risk of waste materials containing asbestos in accordance with the risk classification procedure provided in Schedule 2.

Term	Definition
Clean Fill	has the meaning defined in Landfill Definitions.
Clinical Waste	has the meaning defined in Landfill Definitions.
Code of practice for the storage and handling of dangerous goods	means the document titled "*Storage and handling of dangerous goods: Code of Practice"* published by the Department of Mines, Industry regulation and Safety, as amended from time to time
condition	a condition to which the licence is subject under section 62 of the *Environmental Protection Act 1986*.
Construction and demolition waste (C&D waste)	has the meaning defined in Landfill Definitions.
Contaminated Solid Waste	has the meaning defined in Landfill Definitions.
Controlled waste	has the definition in *Environmental Protection (Controlled Waste) Regulations 2004.*
Crushed C&D waste	means construction and demolition waste which has undergone processing via crushing and/or screening as per condition 7 which has been tested and conforms to the crushed material specification in this licence.
damp	means wet enough that dust cannot be visibly generated.
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.
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).
FA	Fibrous asbestos
fibrous asbestos	has the meaning defined in the Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia published by the Department of Health.
Hazardous waste	has the meaning defined in Landfill Definitions.

Term	Definition
High risk load	refers to loads classified as “high risk” in accordance with the DWER Asbestos Guidelines risk classification matrix included in Schedule 2 to this licence.
Inert Waste Type 1	has the meaning defined in Landfill Definitions.
Inert Waste Type 2	has the meaning defined in Landfill Definitions.
Landfill Definitions	means the document titled *“Landfill Waste Classification and Waste Definitions 1996”* published by the Chief Executive Officer of the Department of Environment as amended from time to time.
licence	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.
low risk load	means loads classified as low risk in accordance with the risk classification procedure provide in Schedule 2.
NATA	means the National Association of Testing Authorities, Australia.
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis.
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 of this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
Putrescible Waste	has the same meaning given to that term under the EP Act.
Quarantined storage area or container	means a hardstand storage area or sealed-bottom container that is separate and isolated from authorised waste disposal areas and is capable of containing all non-conforming waste and its constituents, these areas must be clearly marked and their access restricted to authorised personnel.
residual wastes	means physical contaminants such as timber, glass, plastic and metals which have been separated, screened or otherwise removed during the processing of construction and demolition waste.
Schedule 1	means Schedule 1 of this Licence unless otherwise stated.

Term	Definition
Schedule 2	means Schedule 2 of this Licence unless otherwise stated.
Schedule 3	means Schedule 3 of this Licence unless otherwise stated.
Schedule 4	means Schedule 4 of this Licence unless otherwise stated.
Special Waste Type 1	has the meaning defined in Landfill Definitions.
Spot sample	means a discrete sample representative at the time and place at which the sample is taken.
waste	has the same meaning given to that term under the EP Act.
Waste Code	means the Waste Code assigned to a type of controlled waste for purposes of waste tracking and reporting as specified in the Department of Water and Environmental Regulation “Controlled Waste Category List” (May 2018), as amended from time to time.

END OF CONDITIONS

Schedule 1: Maps

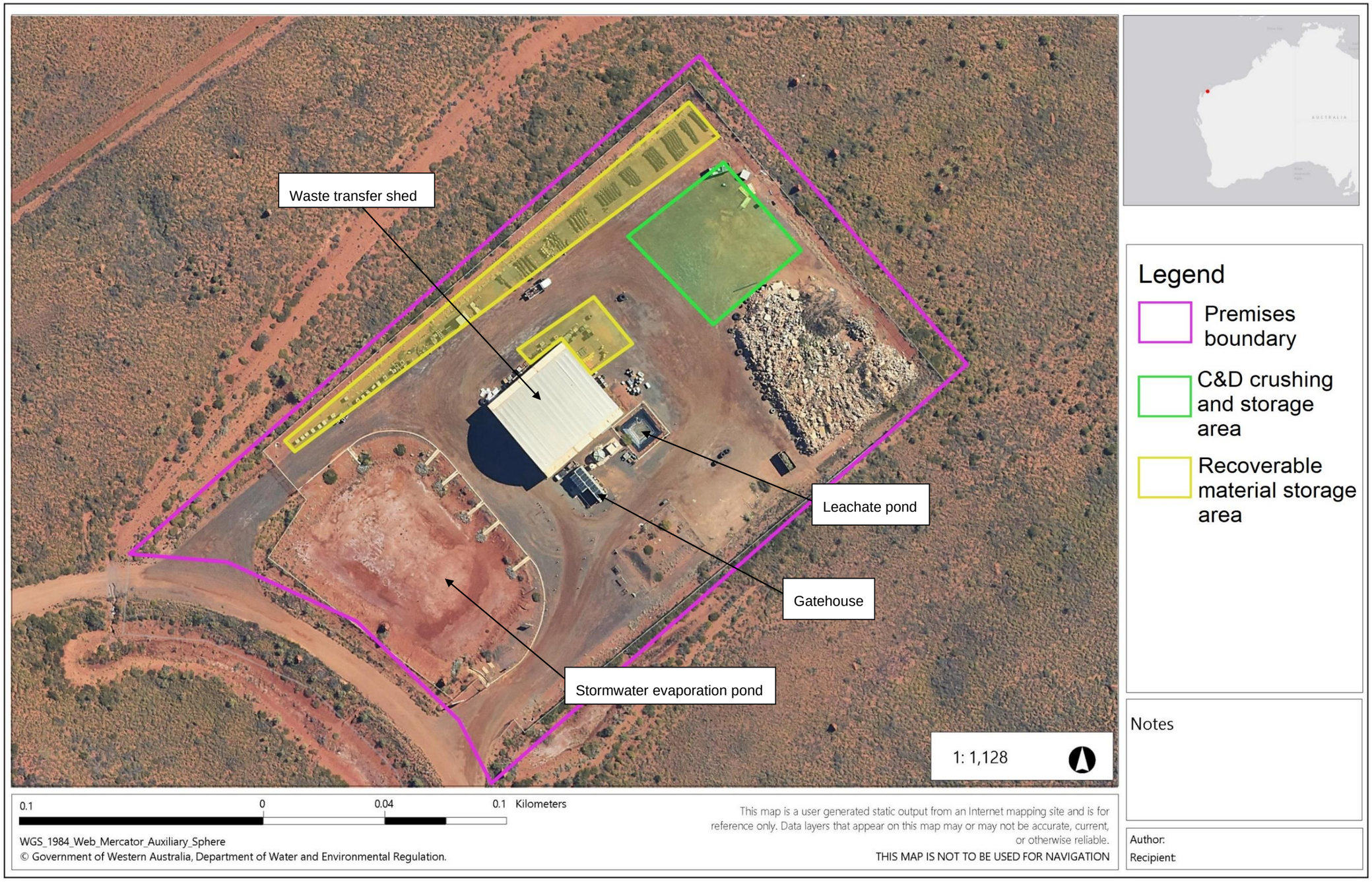

Figure 1: Map of the boundary of the prescribed premises.

Schedule 2: Asbestos load 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 7 below.

Table 7: Risk classification matrix

	TYPE OF LOAD		
MATERIAL TYPE	**Commercial**	**Public – utes, cars, and trailers [1]**	**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

Note 1: 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 3: High risk load procedure

- 'High risk loads' must be unloaded and spread over a sufficiently large area to enable a comprehensive visual inspection of all sides and components of the material to be undertaken.
- If asbestos fines (AF) or fibrous asbestos (FA) is suspected or identified, the load must be isolated, kept wet and, once appropriately contained, redirected to an appropriately authorised facility.
- Where ACM is suspected or identified within a load and is not capable of being easily removed by hand, the load must be rejected in full and isolated, kept wet and, once appropriately contained, redirected to an appropriately authorised facility.
- Where suspected ACM fragments capable of being easily removed by hand are identified in a load, the suspect ACM must be removed from the load and either:
  - (a) appropriately isolated and covered for asbestos testing. If testing of representative samples confirms the material is ACM it must be redirected to an appropriately authorised facility. If testing confirms the material is not ACM the waste can be returned to the stockpile to await further processing; or
  - (b) assumed to be ACM and redirected to an appropriately authorised facility.
- All suspected or assumed ACM must be segregated and stored in the quarantined storage area or container. Material must be clearly labelled, kept secure and sufficiently contained to prevent the release of asbestos including wind-blown fibres.
- Once all suspected or assumed ACM has been removed from a load in line with the above procedure, the residual material can be added to the stockpile waiting further processing.
- Records must be kept to ensure that the process from receipt of all waste types to the completion of the unloading procedure is auditable and that any loads found to contain suspect asbestos will be traced back to the customer and originating site.

Schedule 4: Asbestos monitoring and testing

Crushed material testing and supply

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

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.

Crushed materials 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 crushed material 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 crushed materials must occur at a minimum rate of 40 locations per 4000 tonnes or 14 samples per 1000 m^3 of crushed material.

Conveyor sampling

- Sampling of road base and screened sand crushed materials must occur at a minimum rate of 1 sample per 70 m^3 of a crushed material 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 crushed material that meets the crushed material specification and undertake their activities to a high standard, DWER may authorise a reduced crushed material testing rate including down to 5 locations per 4000 tonnes (1 sample per 600 m^3) of crushed material.

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 Appendix 2 of the *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 crushed materials meet the material 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 crushed material 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 crushed material 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 crushed material 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 crushed material 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 m^2 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 road-base. In this case a 1 cm^3 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.