Licence

Licence number	L6772/1997/13
Licence holder	Waste Stream Management Pty Ltd
ACN	069 513 346
Registered business address	22 Railway Parade SUBIACO WA 6008
DWER file number	DER2016/000613-1
Duration	25/07/2015 to 15/07/2031
Date of amendment	20/09/2022
Premises details	Waste Stream Management 2 Ratcliffe Road KWINANA BEACH WA 6167 Legal description - Lot 434 on Deposited Plan 220492 Certificate of Title Volume 3114 Folio 992; Part of Lot 304 on Diagram 72808 Certificate of Title Volume 1795 Folio 919; and Lot 303 on Diagram 72808 Certificate of Title Volume 1795 Folio 918. As defined by the coordinates in Schedule 2

Prescribed premises categories (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production or design capacity**
Category 13: Crushing of building material	90,000 tonnes per annual period
Category 61A: Solid waste facility	100,000 tonnes per annual period
Category 62: Solid waste depot	90,000 tonnes per annual period
Category 63: Class I inert landfill site	500,000 tonnes per annual period
Category 70: Screening etc, of material	50,000 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 20 September 2022, by:

Jarrod Abrahams

Digitally signed by Jarrod Abrahams
Date: 2022.09.20 16:58:55 +08'00'

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
L6772/1997/6	31/07/2002	Licence re-issue
L6772/1997/7	21/07/2003	Licence re-issue
L6772/1997/8	17/08/2004	Licence re-issue
L6772/1997/9	22/07/2006	Licence re-issue
L6772/1997/10	19/07/2007	Licence re-issue
L6772/1997/11	16/07/2009	Licence re-issue
L6772/1997/12	21/05/2015	Licence amendment to authorise the construction of an Acid Sulfate Soils (ASS) treatment facility.
L6772/1997/13	23/07/2015	Licence reissue
L6772/1997/13	07/05/2021	Licence amendment to change waste acceptance and processing requirements and amend the groundwater monitoring program.
L6772/1997/13	20/09/2022	Licence to amendment to include new processing equipment and align conditions with current format.

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:

Waste acceptance

1. The licence holder must only accept onto the premises waste of a type that:

(a) for the corresponding category does not exceed the rate at which that waste is received; and

(b) meets the corresponding acceptance specification,

as set out in Table 1.

Table 1: Waste acceptance criteria

Waste type	Category	Rate at which waste is received	Acceptance specification[1]
Inert Waste Type 1	61A	100,000 tonnes per annual period	(a) Must not contain any visible asbestos or ACM.
Inert Waste Type 2			(a) Tyres and non-biodegradable plastic only.
Putrescible Waste			(a) Green waste and non-chemically treated timber only.
Clean Fill	62	90,000 tonnes per annual period	None specified.
Inert Waste Type 1			(a) Must not contain any visible asbestos or ACM.
Clean Fill	63	500,000 tonnes per annual period	None specified.
Inert Waste Type 1			(a) Must not contain any visible asbestos or ACM.
Inert Waste Type 2			(a) Tyres and non-biodegradable plastic only.
Special Waste Type 1 (asbestos)			(a) Must be wrapped in heavy duty plastic or otherwise contained in a manner that prevents asbestos fibres entering the atmosphere; and (b) Must only be accepted for burial.

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

Non-conforming waste

2. During pre-inspection of waste loads at the gatehouse, where waste does not meet the waste acceptance criteria set out in condition 1, the licence holder must:

(a) reject the waste; and

(b) record 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 that the waste load was rejected; and

(c) maintain accurate and auditable records of all waste loads rejected from the premises.

3. After acceptance of waste onto the premises (via the gatehouse), the licence holder must ensure that where waste does not meet the waste acceptance criteria set out in condition 1, 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 within 1 week of any quantity exceeding 30 m^3.

Asbestos management (load risk classification)

4. Excluding where waste is accepted for burial, 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.

5. The licence holder must ensure water is routinely applied to each load of waste entering the premises, to ensure all loads are wetted prior to unloading, and maintained in a damp state throughout the inspection process.

6. 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) Excluding where waste is accepted for burial, 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: Asbestos risk classification procedure.

7. Excluding where waste is accepted for burial, upon acceptance of waste, the licence holder must direct each classified load to an unloading area where the classified load will not mix with other waste prior to further inspection.

Infrastructure and equipment

8. The licence holder must ensure that the site infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements

Site infrastructure and equipment		Operational requirement	Infrastructure location
1.	Inert Landfill	(a) The separation distance between the base of the landfill and the highest groundwater level must be greater than 1.2 m; and (b) Rehabilitation of a cell or phase must take place within 6 months after disposal in that cell or phase has been completed.	Active Landfilling Area
2.	C&D Waste processing plant comprised of: (a) mobile jaw crusher; (b) mobile screener; (c) mobile density separator; and (d) stacker conveyors.	(a) Must only be operated when all material passing through the site infrastructure and equipment is dampened to prevent dust lift off.	C&D Waste Processing Area
3.	Mixed waste processing plant comprised of: (a) mobile hammermill shredder; (b) 4 x mobile screeners; (c) 2 x water density separators; and (d) stacker conveyors	(a) Must only be operated when all material passing through the site infrastructure and equipment is dampened to prevent dust lift off; and (b) A dust extraction system must be operational at all times when the mobile hammermill shredder is operating.	Mixed Waste Processing Area
4.	Water carts	(a) Must be capable of wetting the top of all stockpiles on the premises; (b) Must be made available at all times for the purposes of dust suppression when any earthmoving, shredding, crushing, screening, or cartage activities are occurring; and (c) Must be operated when visible dust is being generated.	N/A

Site infrastructure and equipment		Operational requirement	Infrastructure location
5.	Fuel and hydrocarbon storage facility	(a) Must be bunded to contain at least 110 % of the volume of the stored hydrocarbons and be provided with sufficient capacity to ensure hydrocarbons are not discharged beyond the bund during rainfall events; (b) The facility floor and bunding must have a permeability of less than 1 x 10^{-9} m/s; and (c) Fuel and liquid hydrocarbons must be stored within the facility.	Workshop and Fuel Storage as depicted on Figure 2
6.	Fencing and security gates	(a) Suitable fencing must be erected and maintained to prevent unauthorised access to the premises; (b) Entrance gates to the premises must be securely locked when the premises is unattended; and (c) Weekly inspections of all security measures must be undertaken and any damage must be repaired within five working days of its discovery.	N/A
7.	Signage	(a) A sign at the entrance to the premises must be erected and maintained which clearly displays the following information: (i) hours of operation; (ii) contact telephone number; (iii) a warning indicating penalties for people lighting fires; and (iv) a list of materials accepted for recycling and the location of where they can be deposited on the premises. (b) Clear visible signage must be erected and maintained that specifies “No Asbestos” at all entries to the Mixed Waste Processing Area and the C&D Waste Processing Area.	N/A
8.	Nested groundwater monitoring bores (TMP1, TMP2, TMP3, TMP4, TMP5 and TMP6)	(a) Must be maintained free from blockages and in good working order to allow representative shallow, intermediate and deep groundwater samples to be collected.	As defined by the coordinates in Schedule 2: Table 16

Waste processing and operations

9. The licence holder must ensure that:

(a) skip bins containing waste are not stored for longer than 7 days on Lot 303; and

(b) no other storage of waste occurs on Lot 303.

10. The licence holder must ensure that for each category, the corresponding waste types specified in Table 3 are only subjected to the corresponding processes, subject to the corresponding process limits and/or specifications.

Table 3: Waste processing limits and specifications

Category	Waste type	Processes	Process limits and/or specifications[1]
61A	Inert Waste Type 1; Inert Waste Type 2; and Putrescible Waste	Receipt, handling, storage and mechanical treatment via screening, shredding, crushing and density separation	(a) Must not contain any visible asbestos or ACM; (b) Must not contain any chemically treated timber; (c) Must only occur within the Mixed Waste Processing Area; and (d) Inert waste must be maintained in a damp state during mechanical treatment.
	Putrescible Waste	Receipt, handling, storage and mechanical treatment via shredding, prior to disposal or re-use	(a) Must be comprised of Green Waste only; (b) No more than 250 m^3 of unprocessed Green Waste shall be stored at the premises at any one time; (c) No more than 1,250 m^3 of mulched Green Waste shall be stored at the premises at any one time; (d) Storage of processed and unprocessed Green Waste must occur on a base of compacted limestone; (e) Processed Green Waste must be stored in windrows; (f) Temperatures within processed Green Waste windrows must be monitored and managed to prevent self-combustion; and (g) A 5 m fire break must be maintained around processed and unprocessed Green Waste Storage Areas.
62	Clean Fill; and Inert Waste Type 1	Receipt, handling and storage, prior to mechanical treatment	(a) Must not contain any visible asbestos or ACM.

Category	Waste type	Processes	Process limits and/or specifications[1]
13	Clean Fill; and Inert Waste Type 1	Mechanical treatment via crushing, screening and density separation, prior to associated storage	(a) Must not contain any visible asbestos or ACM; and (b) Must only occur within the C&D Waste Processing Area.
63	Clean Fill; Inert Waste Type 1; and Inert Waste Type 2	Receipt, handling, storage and disposal by landfilling	(a) Disposal by landfilling must only take place within the Active Landfilling Area; (b) Waste must be levelled and compacted by the end of the working day in which it was deposited; (c) Waste must be placed and compacted to ensure all faces are stable and capable of retaining rehabilitation material; and (d) No more than 99 tyres shall be stored at the premises at any one time.
	Special Waste Type 1 (asbestos)	Receipt, handling, containment and disposal by landfilling	(a) Disposal by landfilling must only take place within the designated Asbestos Disposal Area; (b) Asbestos or ACM must not be disposed within 2 m of the final tipping surface of the landfill; and (c) Asbestos or ACM must remain undisturbed following disposal.

Note 1: Requirements for landfilling of tyres are set out in Part 6 of the Environmental Protection Regulations 1987.

Landfill cover

11. The licence holder must ensure that cover is applied and maintained on landfilled waste types in accordance with the corresponding cover requirements in Table 4 and that sufficient stockpiles of cover are maintained on the premises at all times.

Table 4: Cover requirements

Waste type	Material	Depth	Timescale
Inert Waste Type 1	No cover required		
Inert Waste Type 2	Inert Waste Type 1 or Clean Fill	100 mm	(a) By the end of the working day in which the waste was deposited. (b) Plastic waste with the potential to become windblown must be covered immediately after being levelled and compacted.
Special Waste Type 1		300 mm	(a) Within 3 hours after deposit and prior to compaction.
		1,000 mm	(a) By the end of the working day in which the asbestos waste was deposited.

Asbestos management (load inspection)

12. 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 4: High risk load procedure.

Asbestos management (stockpiles)

13. Within the C&D Waste Processing Area, the licence holder must ensure that:

(a) materials are maintained in at least three separate stockpiles for unprocessed waste, recycled products tested for asbestos or ACM, and recycled products awaiting testing for asbestos or ACM;

(b) unprocessed waste and recycled products stockpiles are kept clearly separated at a minimum 3 m distance from the base of the stockpile or separated by impermeable barriers;

(c) recycled products tested for asbestos or ACM and recycled products awaiting testing for asbestos or ACM are clearly separated by a minimum 3 m distance from the base of the stockpile or separated by impermeable barriers; and

(d) clearly visible and legible signage is erected on individual stockpiles to clearly identify and delineate tested recycled products, untested recycled products, and unprocessed waste.

Buffer distances

14. The licence holder must establish and maintain internal buffer distances of:

(a) 10 m at the northern and southern premises boundaries;

(b) 25 m at the eastern premises boundary; and

(c) a minimum 5 m at the western premises boundary.

Emissions and discharges

Dust emissions

15. The licence holder must manage dust generation at the premises by:

(a) wetting down unsealed roads and exposed areas with a water truck;

(b) limiting all vehicle traffic within the premises to speeds of less than 10 km/hr; and

(c) ceasing dust-generating activities during strong wind conditions.

16. The licence holder must ensure that all recycled product and waste stockpiles are wetted down during operations at all times.

17. The licence holder must ensure that all products to be removed from the premises are wetted down prior to loading.

Contaminated stormwater

18. The licence holder must:

(a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the premises; and

(b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the premises.[1]

Note 1: The Environmental Protection (Unauthorised Discharges) Regulations 2004 make it an offence to discharge certain materials into the environment.

Spills

19. The licence holder must immediately recover, or remove and dispose of, spills of environmentally hazardous materials occurring outside an engineered containment system.

20. The licence holder must ensure that all material used for the recovery, removal, and/or disposal of environmentally hazardous materials is stored in an impermeable container prior to disposal at an appropriately authorised facility.

Windblown waste

21. 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 returned to the tipping area or otherwise appropriately contained.

Fire management

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

Monitoring

Waste inputs and outputs

23. The licence holder must record the total amount of waste accepted onto and removed from the premises, for each waste type listed in Table 5, in the corresponding unit, and for each corresponding time period, as set out in Table 5.

Table 5: Waste accepted onto and removed from the premises

Waste input/output	Waste type	Unit	Time period
All waste accepted onto the premises	Inert Waste Type 1	tonnes	Each load arriving at the premises
	Inert Waste Type 2 - Tyres		
	Inert Waste Type 2 - Plastics		
	Special Waste Type 1		
	Clean Fill		
	Putrescible Waste		
All waste removed from the premises	Waste type as defined in the *Landfill Waste Classification and Waste Definitions 1996*		Each load leaving or rejected from the premises

Ambient groundwater monitoring

24. The licence holder must monitor groundwater for concentrations of the identified parameters in accordance with Table 6.

Table 6: Monitoring of ambient groundwater quality

Monitoring location	Parameter	Unit	Frequency	Method
TMP1S; TMP1I; TMP1D; TMP2S; TMP2I; TMP2D; TMP3S; TMP3I; TMP3D; TMP4S; TMP4I; TMP4D; TMP5S; TMP5I; TMP5D; TMP6S; TMP6I; and TMP6D, as defined by the coordinates in Schedule 2: Table 16 and depicted on Schedule 1: Figure 3	Standing water level[1]	mAHD and mBGL	Six-monthly	AS 5667.1; and AS 5667.11
	pH[1]	-		
	Electrical conductivity[1]	µS/cm		
	Redox potential[1]	mV		
	Dissolved oxygen[1]	mg/L		
	Calcium			
	Magnesium			
	Potassium			
	Sodium			
	Chloride			
	Bicarbonate			
	Sulfate			
	Ammonia-Nitrogen (NH_3-N)			
	Nitrate-Nitrogen (NO_3-N)			
	Nitrite-Nitrogen (NO_2-N)			
	Total nitrogen			
	Total phosphorus			
	Total dissolved solids			
	Total organic carbon			
	Chemical oxygen demand			
	Aluminium			
	Arsenic			
	Cadmium			
	Chromium			
	Copper			
	Total iron			
	Lead			
	Manganese			
	Mercury			
	Nickel			
	Selenium			
	Zinc			

Monitoring location	Parameter	Unit	Frequency	Method
TMP1S; TMP1I; TMP1D; TMP2S; TMP2I; TMP2D; TMP5S; TMP5I; and TMP5D, as defined by the coordinates in Schedule 2: Table 16 and depicted on Schedule 1: Figure 3	Benzene	mg/L	Annually	AS 5667.1; and AS 5667.11
	Ethyl benzene			
	Toluene			
	Xylenes			
	Organochlorines			
	Organophosphates			
	Phenols			
	Polycyclic Aromatic Hydrocarbons			
	Polychlorinated Biphenyls			
	Total Petroleum Hydrocarbon			

Note 1: In-field non-NATA accredited analysis permitted.

25. The licence holder must ensure that all monitoring pursuant to condition 24:

(a) is undertaken in each six-monthly period such that there are at least 5 months in between the days on which samples are taken in successive periods of six months; and

(b) is undertaken in each annual period such that there are at least 9 months in between the days on which samples are taken in successive years.

26. The licence holder must ensure that all sample analysis pursuant to condition 24 is undertaken by laboratories with current accreditation from the National Association of Testing Authorities for the relevant parameters, unless otherwise specified in Table 6.

Asbestos management (testing)

27. The licence holder must ensure that testing of all recycled products is undertaken in accordance with the product testing procedures specified in Schedule 5: Asbestos monitoring and testing.

28. The licence holder is not authorised to implement a reduced product testing rate as per the “Reduced sampling criteria” section of Schedule 5: Asbestos monitoring and testing.

29. The licence holder must ensure that recycled products are only supplied to customers or used in the construction of infrastructure on the premises if they have been tested in accordance with condition 27 and must not exceed the product specification of 0.001% asbestos weight for weight (w/w) for asbestos content (in any form) within any recycled products.

General

30. The licence holder must ensure that all monitoring equipment used to comply with conditions 23, 24 and 27 is operated and calibrated in accordance with the manufacturer’s specifications.

Records and reporting

Records (asbestos management)

31. The licence holder must maintain a register of each load of asbestos or ACM disposed of at the premises, including the:

(a) date of delivery;

(b) name of the person that deposited the asbestos or ACM; and

(c) registration number of the delivery vehicle.

32. 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.

33. The licence holder must maintain accurate and auditable records of all asbestos product testing undertaken in accordance with condition 27, including:

(a) details of the sample size;

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

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

(d) a description of any asbestos detected; and

(e) an estimate of the concentration of asbestos detected.

Records (general)

34. 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.

35. 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) any maintenance of infrastructure that is performed in the course of complying with condition 8 of this licence;

(c) monitoring programs undertaken in accordance with conditions 23 and 24 of this licence; and

(d) complaints received under condition 34 of this licence.

36. The books specified under condition 35 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

37. 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 28 September after the end of that annual period an Annual Audit Compliance Report in the approved form.

38. The licence holder must submit to the CEO by no later than 28 September after the end of each annual period, an Annual Environmental Report (AER) for that annual period for the conditions listed in Table 7, and which provides information in accordance with the corresponding requirement set out in Table 7.

Table 7: Annual Environmental Report

Condition	Requirement
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken
23	A summary of waste input and output data, including the quantities of each waste type received, rejected or removed from the premises during the annual period.
24	Ambient Groundwater Monitoring for the annual period including; (a) a tabulated summary of results, as well as all raw data provided in an accompanying Microsoft Excel spreadsheet digital document/file (or a compatible equivalent digital document/file); (b) a diagram with aerial image overlay showing all monitoring locations and depicting groundwater level contours, flow direction and hydraulic gradient; (c) an interpretive summary and assessment of results against previous monitoring results; (d) an interpretive summary and assessment of the results against relevant assessment levels for water, as published in the *Guideline: Assessment and management of contaminated sites*; (e) trend graphs to provide a graphical representation of historical results and to support the interpretive summary; and (f) the corresponding laboratory certificates of analysis.
27 and 33	A summary of asbestos validation testing of recycled products during the annual period.
30	Any relevant information relating to the calibration of monitoring equipment during the annual period.
31 and 32	A summary of asbestos management records for the annual period.
34	A summary of complaints received for the annual period.

Notifications

39. The licence holder must ensure that the parameters listed in Table 8 are notified to the CEO in accordance with the notification requirements of the table.

Table 8: Notification requirements

Parameter	Notification requirements	Format
Any: (a) fire on the premises; or (b) accident, malfunction or emergency which could result in the discharge of fire-fighting washwater or other wastes from the premises	Immediately	To the Pollution Watch hotline, via: - pollutionwatch@dwer.wa.gov.au; and - 1300 784 782

Specified actions

40. The licence holder must submit to the CEO the information in Table 9 in accordance with the requirements and timescale specified in Table 9.

Table 9: Specified action requirements

Information	Requirements	Timescale
Landfill Development Plan	A consolidated development plan with respect to the progression and staging of landfilling activities on the premises, including but not limited to: (a) a plan and estimated timeframe for progressive filling of the current Active Landfilling Area; (b) a map of the premises showing the licence holder's proposed staging for future landfill areas/cells on the premises for a timeframe of 10 years (to 30 June 2031); (c) a contour map that depicts the existing contours, and top and side slopes of the landfill; (d) details of final levels to be achieved for each landfilling area/cell, including a contour map that depicts proposed final contours, top and side slopes, and surface drainage features; (e) details of the final waste embankment slopes and foundation stability; (f) methods employed to clearly identify and delineate each landfill area/cell; (g) landfilling area/cell closure timeframes and methods; and (h) a comparison to the completion profile shown in the *Kwinana Landfill Tipsite Landscape and Visual Impact Assessment* and an explanation for any identified departures.	31 December 2023

Information	Requirements	Timescale
Dust Management Plan	An updated Dust Management Plan with respect to fugitive dust emissions from all activities on the premises, including but not limited to: (a) A descriptive overview of the premises and activities that could result in fugitive dust emissions, with details about the different facilities, process areas and equipment; (b) A fugitive dust source list that includes: (i) each potential equipment or activity source of fugitive dust; (ii) a unique identification number or designation for each source; (iii) location of each source within the premises (or reference id on an included site map); (iv) relevant factors influencing the generation of dust for each source (e.g. wind conditions, operational activities); and (v) identification of the dust-generating material for each source (e.g. aggregate, mixed waste, road dust). (c) The specific operational practices and control methods that will be implemented to address the identified fugitive dust sources and activities that considers; (i) how the mitigation measures will address the specific mechanism that causes dust generation for each source; (ii) what equipment/systems will be used; (iii) under what frequency and conditions the mitigation measures will be applied; (iv) who is responsible for implementing mitigation measures; and (v) contingency measures if mitigation measures are insufficient or no longer efficient; and (vi) the monitoring and maintenance that will be implemented to ensure mitigation measures are effective.	30 June 2023

Definitions

In this licence, the terms in Table 10 have the meanings defined.

Table 10: Definitions

Term	Definition
ACM	means asbestos-containing material
ACN	Australian Company Number
Active Landfilling Area	means the area shown in yellow in Schedule 1: Figure 2 and defined by the coordinates in Schedule 2: Table 13 of this licence
AF	means asbestos fines or fibres
Annual Audit Compliance Report (AACR)	means a report submitted in a the AACR Form template approved by the CEO for use and available via DWER's external website
annual period	a 12-month period commencing from 1 July until 30 June of the immediately following year
AS 5667.1	means the Australian Standard *AS/NZS 5667.1 Water quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples*
AS 5667.11	means the Australian Standard *AS/NZS 5667.11 Water quality - Sampling - Guidance on sampling of groundwater*
asbestos	as defined in the Asbestos Guidelines
asbestos-containing material	as defined in the DWER Asbestos Guidelines
Asbestos Disposal Area	means the area shown in yellow in Schedule 1: Figure 2 and defined by the coordinates in Schedule 2: Table 13 of this licence
asbestos fines or fibres	as defined in the Asbestos Guidelines
DWER Asbestos Guidelines	means the *Guideline: Managing asbestos at construction and demolition waste recycling facilities* published on the department's website
averaging period	means the time over which a limit or target is measured or a monitoring result is obtained
books	has the same meaning given to that term under the EP Act

Term	Definition
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
Clean Fill	as defined in the Landfill Definitions
C&D Waste	means construction and demolition waste
C&D Waste Processing Area	means the area shown in blue in Schedule 1: Figure 2 and defined by the coordinates in Schedule 2: Table 15 of this licence
condition	a condition to which this licence is subject under section 62 of the EP Act.
construction and demolition waste	as defined in the Landfill Definitions
cover material	means subsoil or other approved Inert Waste Type 1 used for the covering of waste
damp	means moist to the touch
delivery vehicle	means the vehicle that delivered the waste to the premises
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	means fibrous asbestos
fibrous asbestos	as defined in the Asbestos Guidelines
Green Waste	means 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
Green Waste Storage Area	means any area where Green Waste is stored pending processing, and/or any area where there is a mulched Green Waste windrow

Term	Definition
Guideline: assessment and management of contaminated sites	means the *Guideline: Assessment and management of contaminated sites* published on the department's website
high risk load	refers to loads classified as *high risk* in accordance with the Asbestos Guidelines Risk Classification Matrix included in Schedule 3: Asbestos risk classification procedure of this licence
hydrocarbons	means the subset of organic compounds that consist entirely of carbon and hydrogen such as methane (CH4 – the main component of natural gas) and petroleum products including petrol, diesel, lubricating oils and fuel oils; it should be noted that hydrocarbons may contain other (minor) impurities within their bulk such as oxygen, sulfur, chlorine or nitrogen containing compounds and various metals, either intentionally added (as with molybdenum sulfide – a lubricant) or as residue from refining or operational use
Inert Waste Type 1	as defined in the Landfill Definitions
Inert Waste Type 2	as defined in the Landfill Definitions
Kwinana Landfill Tipsite Landscape and Visual Impact Assessment	means the document titled *Kwinana Landfill Tipsite - Landscape and Visual Impact Assessment Report*, prepared by Ecoscape (Australia) Pty Ltd, dated September 2004
Landfill Definitions	*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 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
Lot 303	means Lot 303 on Plan 72808 Certificate of Title Volume 1795 Folio 918
low risk load	refers to loads classified as *low risk* in accordance with the Asbestos Guidelines Risk Classification Matrix included in Schedule 3: Asbestos risk classification procedure of this licence
m	metres
mAHD	metres relative to Australian height datum
mBGL	metres below ground level
Mixed Waste Processing Area	means the area shown in orange in Schedule 1: Figure 2 and defined by the coordinates in Schedule 2: Table 14 of this licence
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

Term	Definition
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
recycled product	refers to C&D Waste which has undergone crushing, processing or screening to create a useable recycled product and which is awaiting asbestos testing or has been tested and conforms to the specifications of this licence
Recycled Product Storage Area	means the area shown in green in Schedule 1: Figure 2 and defined by the coordinates in Schedule 2: Table 12 of this licence
Special Waste Type 1	as defined in the Landfill Definitions
spot sample	means a discrete sample representative at the time and place at which the sample is taken
strong wind conditions	means wind speeds of 38 km/hr or greater, or a Beaufort Scale rating of 6 or greater
usual working day	means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia
waste	has the same meaning given to that term under the EP Act
windrows	means parallel rows of mulched Green Waste where each row is no more than 3 m high and no more than 4 m wide and separated by at least 2.5 m of clear ground from any other row

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is depicted by the pink line and Lot 303 is shown by the area coloured and bordered in yellow in the map below.

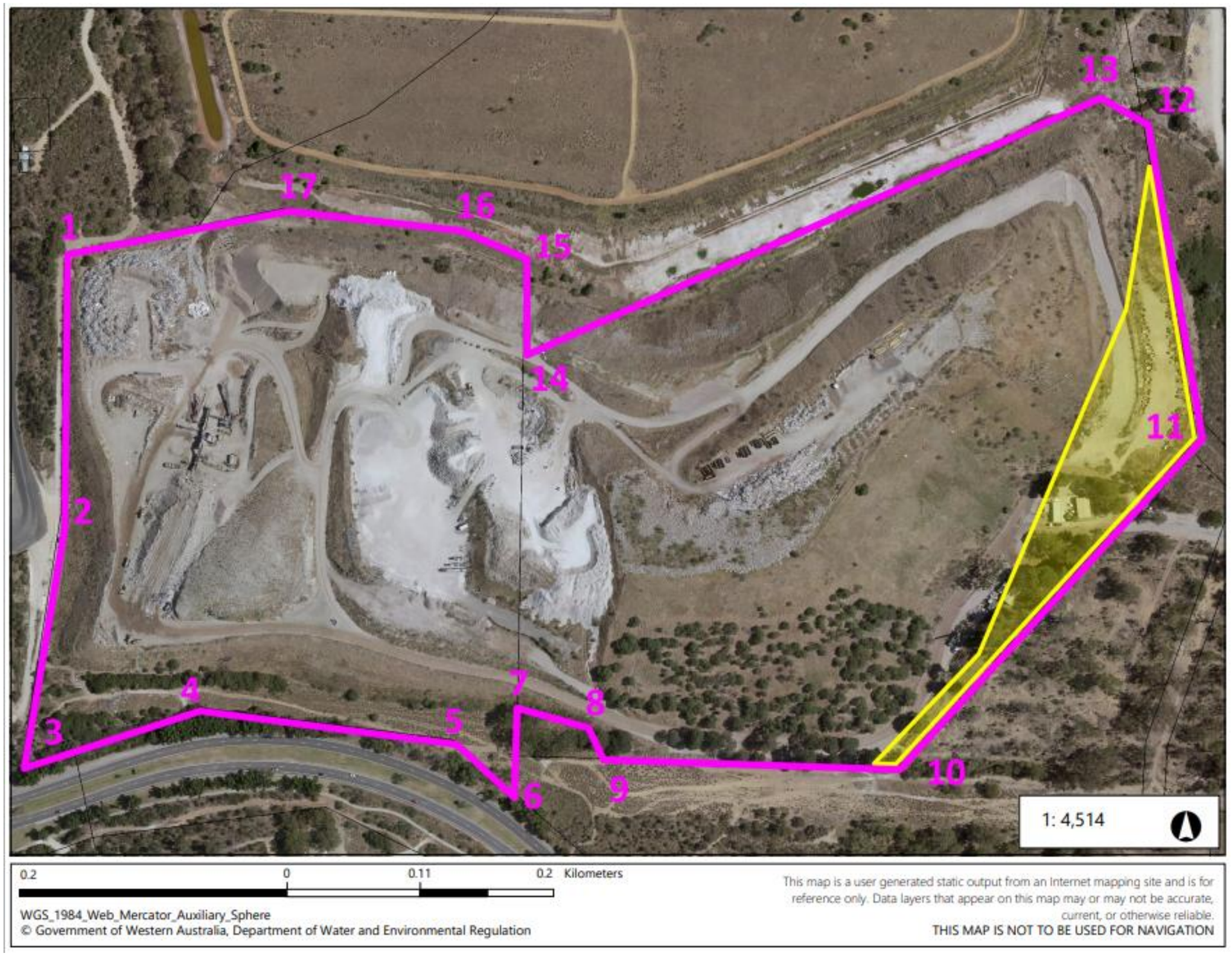

Figure 1: Map of the boundary of the prescribed premises

Premises activitites map

The premises activities map below shows the activities that are currently occurring on the premises, and includes the Active Landfilling Area (also the Asbestos Disposal Area)(yellow area), the Mixed Waste Processing Area (orange area), the Recycled Product Storage Area (green area) and the C&D Waste Processing Area (blue area).

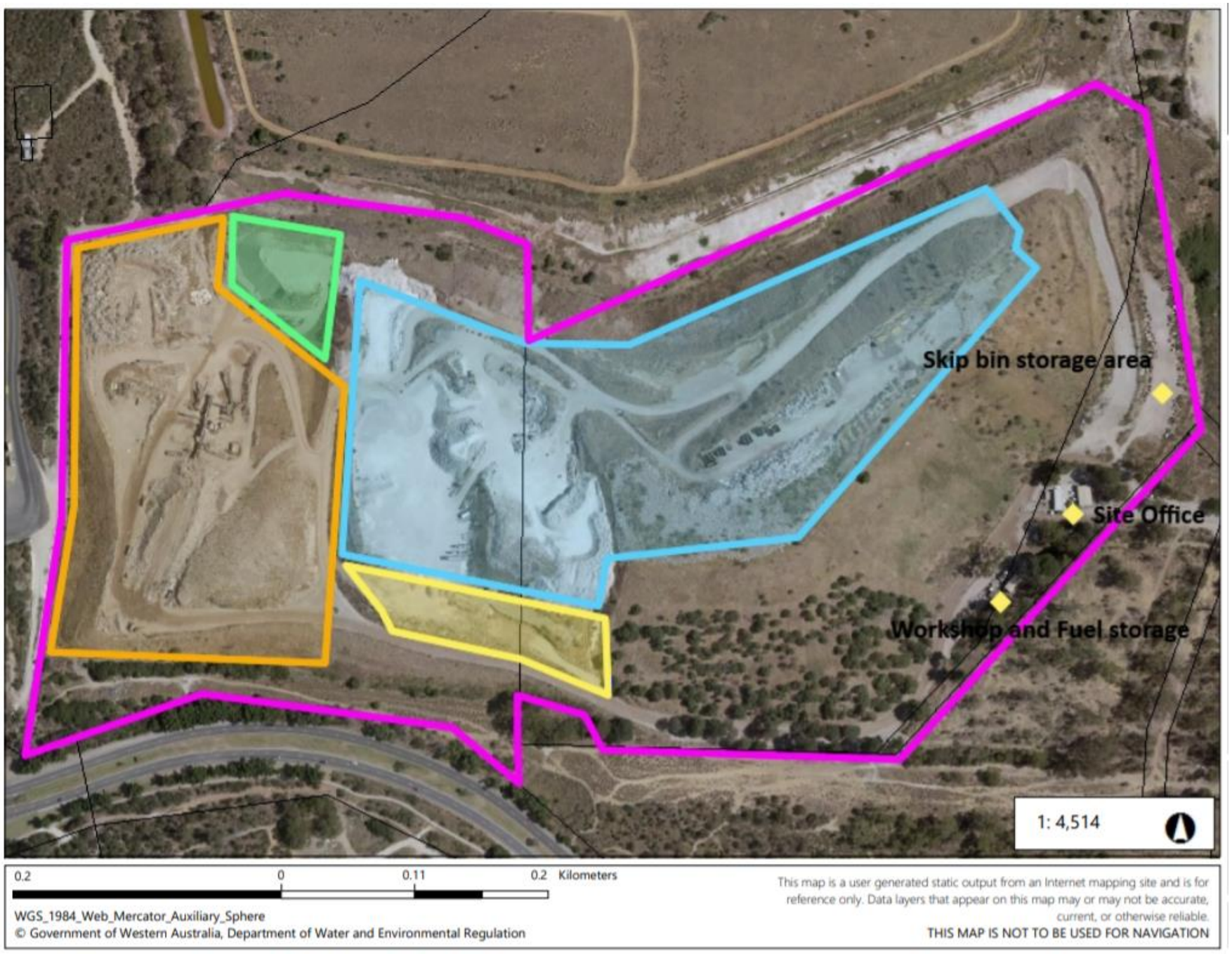

Figure 2: Premises activities map

Ambient groundwater monitoring bores

The location of ambient groundwater monitoring bores is shown in Figure 3 below as the yellow dots. Bore nests are labelled accordingly, with the coordinates of the shallow interface mapped.

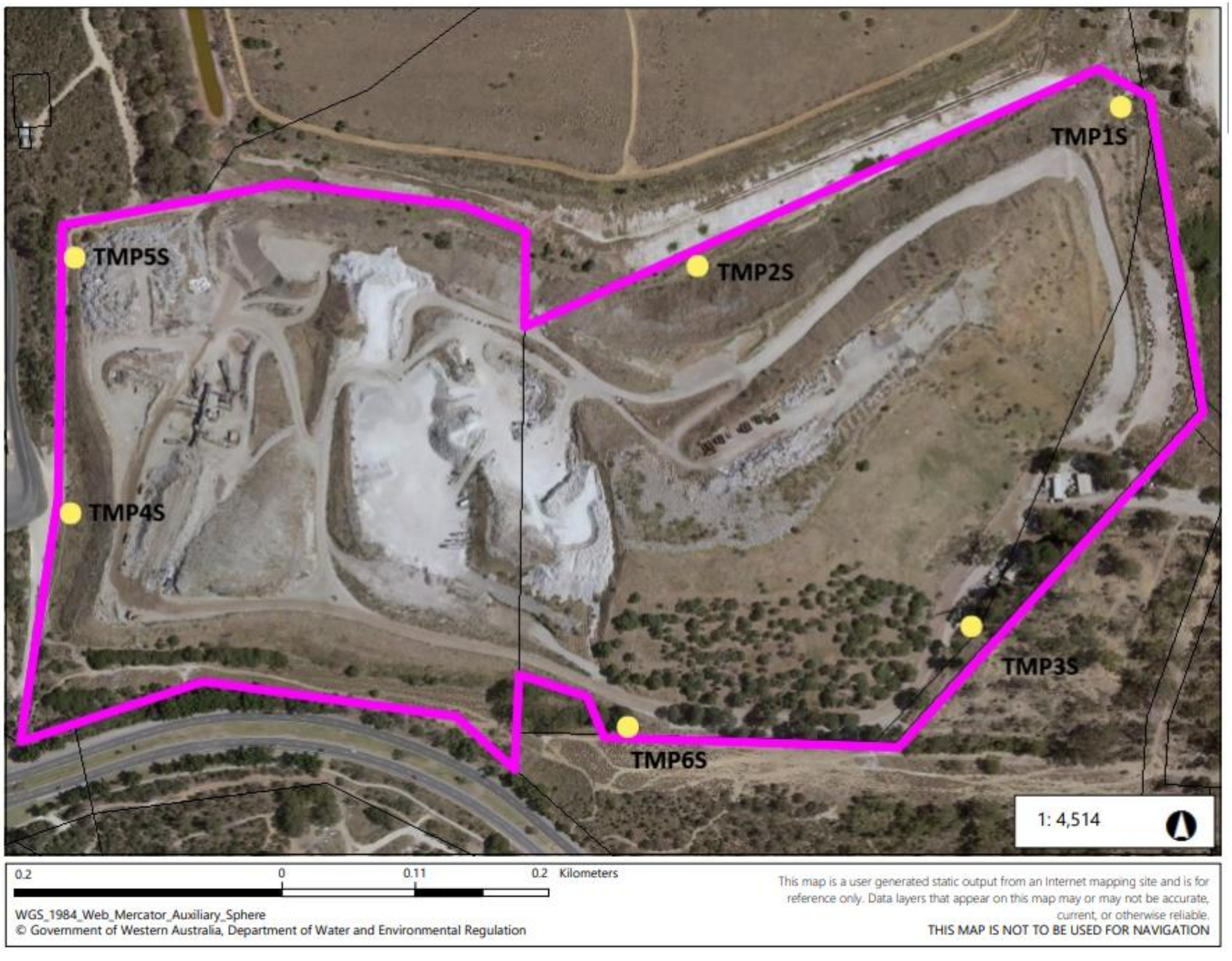

Figure 3: Groundwater monitoring bore location map

Schedule 2: Coordinates

Premises boundary

The premises boundary is defined by the coordinates in Table 11.

Table 11: Premises boundary coordinates (GDA2020 MGA Zone 50)

	Easting	Northing
1.	385911.8033	6434290.875
2.	385911.9348	6434099.677
3.	385883.7954	6433919.823
4.	386012.7174	6433964.546
5.	386197.0031	6433941.463
6.	386243.996	6433898.722
7.	386243.0201	6433970.574
8.	386292.718	6433957.044
9.	386306.1889	6433928.013
10.	386516.5447	6433924.336
11.	386732.2196	6434168.261
12.	386692.2899	6434393.229
13.	386658.711	6434411.972
14.	386243.8886	6434224.759
15.	386245.1647	6434291.19
16.	386199.4528	6434309.796
17.	386067.8251	6434325.423

Recycled Product Storage Area

The Recycled Product Storage Area is defined by the coordinates in Table 12.

Table 12: Recycled Product Storage Area (GDA2020 MGA Zone 50)

	Easting	Northing
1.	386029.4192	6434308.568
2.	386033.018	6434258.293
3.	386097.3138	6434205.682
4.	386109.427	6434297.393

Active Landfilling Area and Asbestos Disposal Area

The Active Landfilling Area and Asbestos Disposal Area is defined by the coordinates in Table 13.

Table 13: Active Landfilling Area and Asbestos Disposal Area (GDA2020 MGA Zone 50)

	Easting	Northing
1.	386111.5845	6434060.684
2.	386151.5913	6434009.813
3.	386243.8191	6433990.724
4.	386308.84	6433963.279
5.	386305.1351	6434023.111

Mixed Waste Processing Area

The Mixed Waste Processing is defined by the coordinates in Table 14.

Table 14: Mixed Waste Processing Area (GDA2020 MGA Zone 50)

	Easting	Northing
1.	386024.3752	6434307.505
2.	385917.4652	6434283.156
3.	385918.5748	6434094.988
4.	385902.5206	6433994.178
5.	386100.7813	6433987.355
6.	386112.6937	6434186.735
7.	386021.9081	6434257.162

C&D Waste Processing Area

The C&D Waste Processing Area is defined by the coordinates in Table 15.

Table 15: C&D Waste Processing Area (GDA2020 MGA Zone 50)

	Easting	Northing
1.	386120.8999	6434266.326
2.	386114.0525	6434065.995
3.	386301.5311	6434028.857
4.	386306.1712	6434065.89
5.	386443.503	6434082.274
6.	386616.7289	6434279.439
7.	386599.64	6434292.958
8.	386602.274	6434306.07
9.	386577.8001	6434335.734
10.	386320.1064	6434220.639
11.	386244.5236	6434220.545

Ambient groundwater monitoring bores

The location of groundwater monitoring bores specified for sampling in accordance with condition 24 are defined by the coordinates in Table 16.

Table 16: Ambient groundwater monitoring bore location (GDA2020 MGA Zone 50)

Bore ID	Easting	Northing
TMP1S	386672.2979	6434389.337
TMP1I	386672.2979	6434389.337
TMP1D	386672.2979	6434389.337
TMP2S	386369.5984	6434269.127
TMP2I	386369.4984	6434269.156
TMP2D	386369.4984	6434269.074
TMP3S	386571.3977	6434013.658
TMP3I	386570.4977	6434012.617
TMP3D	386570.4977	6434012.59

Bore ID	Easting	Northing
TMP4S	385915.7988	6434090.095
TMP4I	385915.4988	6434088.471
TMP4D	385915.0988	6434086.847
TMP5S	385919.3992	6434275.243
TMP5I	385919.3992	6434273.674
TMP5D	385919.2992	6434272.12
TMP6S	386322.6979	6433934.247
TMP6I	386322.6979	6433934.247
TMP6D	386322.6979	6433934.247

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 17 below.

Table 17: Risk classification matrix

Material Type	Type of Load		
	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 4: 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 and fibres (AF) or fibrous asbestos (FA) is suspected or identified, the load must be isolated, kept wet and once appropriately contained and redirected to an appropriately authorised disposal 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 and redirected to an appropriately authorised disposal 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 disposal 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 disposal facility.

All suspected or assumed ACM must be segregated. 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 waste can be added to the stockpile waiting further processing.

Records must be kept to ensure that the process from receipt of C&D Waste or Inert Waste Type 1 material 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 5: 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 4,000 tonnes or 14 samples per 1000 m^3 of product.

Conveyor sampling

- Sampling of road base and screened sand products must occur at a minimum rate of 1 sample per 70 m^3 of a product output. Suspect ACM or areas must be targeted for sampling.

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 Two of the Department of Health (DoH), 2021, *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.

Analysis method

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 4,000 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.