Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6738/2022/1
Works approval holder	Shire of Broome
Registered business address	Cnr Weld and Haas Street
DWER file number	DER2022/000478
Duration	30/05/2023 to 29/05/2028
Date of issue	30/05/2023
Date of amendment	29/02/2024
Premises details	Broome Regional Resource Recovery Park Legal description - Lot 550 on Deposited Plan 421448

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.	40,000 tonnes per year
Category 57: Used tyre storage (general): premises (other than premises within category 56) on which used tyres are stored.	100,000 tyres
Category 61: Liquid waste facility: premises on which liquid waste produced on other premises (other than sewage waste) is stored, reprocessed, treated or irrigated.	15,000 tonnes per year
Category 61A: Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated or discharged onto land.	10,000 tonnes per year
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	100,000 tonnes per year

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	Assessed production / design capacity
refund points until those containers are accepted for processing or disposal.	
Category 63: Class I inert landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the *Landfill Waste Classification and Waste Definitions 1996*, is accepted for burial.	5,000 tonnes per year
Category 70: Screening etc. of material: premises on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	50,000 tonnes per year

This works approval is granted to the works approval holder, subject to the attached conditions, on 29 February 2024, by:

Abbie Crawford

Digitally signed by Abbie Crawford
Date: 2024.02.29 12:25:00 +08'00'

Abbie Crawford
MANAGER, WASTE INDUSTRIES
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval history

Date	Reference number	Summary of changes
30 May 2023	W6738/2022/1	Works approval granted.
26 July 2023	W6738/2022/1	DWER initiated amendment – typographical error corrected in waste acceptance table, clarified wording for environmental compliance reporting and authorised disposal of oil and grease liquid waste into sullage receival ponds.
DRAFT	W6738/2022/1	Amendment to construct depollution infrastructure and authorise time limited operations for the depollution of up to 200 vehicles per annual period.

Interpretation

In this works approval:

(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 works approval:

  (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 works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

This works approval does not provide any implied authorisation for the clearing of native vegetation in order to meet the conditions or activities specified in this works approval. The clearing of native vegetation requires a separate Native Vegetation Clearing Permit issued under the EP Act.

Works approval conditions

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

Construction phase

Infrastructure and equipment

1. The works approval holder must:

(a) construct and/or install the infrastructure and/or equipment;

(b) in accordance with the corresponding design and construction / installation requirements; and

(c) at the corresponding infrastructure location;

as set out in Table 1.

Table 1: Design and construction / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
Community Recycling Centre			
1.	Green Waste Drop Off and Mulch Collection Area	• Approximately 1,000 m^2 in size; • Concrete hardstand to achieve a sealed surface by undertaking the following: ○ Placement of a 0.2 mm polyethylene damp-proof membrane in accordance with AS 2870-2011 placed between the underside of the slab and the ground with a minimum 200mm lap between sheets and all joints fully taped; ○ The slab is to have an appropriate Exposure Classification in accordance with Section 4 of AS 3600:2018; ○ The minimum strength, curing and cover to reinforcing requirements all be as specified in Section 4 of AS 3600:2018; ○ The slab to be reinforced for strength in accordance with Section 9.1 of AS 3600:2018 and for a degree of crack control in accordance with Section 9.5 of AS 3600:2018 for the appropriate Exposure Classification; and ○ All joints, cuts and incisions within the concrete should be sealed to ensure a uniform permeability across the slab. • Area to be graded so that all stormwater / leachate is directed towards the green waste retention pond.	As shown on Figure 2 in Schedule 1: Maps, labelled as Green Waste

	Infrastructure	Design and construction / installation requirements	Infrastructure location
2.	Hazardous Household Waste Facility	• Constructed as an enclosed, lockable and covered shed; and • Concrete hardstand to achieve a sealed surface by undertaking the following: ○ Placement of a 0.2 mm polyethylene damp-proof membrane in accordance with AS 2870-2011 placed between the underside of the slab and the ground with a minimum 200mm lap between sheets and all joints fully taped; ○ The slab is to have an appropriate Exposure Classification in accordance with Section 4 of AS 3600:2018; ○ The minimum strength, curing and cover to reinforcing requirements all be as specified in Section 4 of AS 3600:2018; ○ The slab to be reinforced for strength in accordance with Section 9.1 of AS 3600:2018 and for a degree of crack control in accordance with Section 9.5 of AS 3600:2018 for the appropriate Exposure Classification; and ○ All joints, cuts and incisions within the concrete should be sealed to ensure a uniform permeability across the slab.	As shown on Figure 2 in Schedule 1: Maps, labelled as Hazardous Household Waste Shed
3.	Recycling Drop Off Area	• Approximately 1,000 m^2 in size; • Constructed with a small canopy covering part of the area; • Concrete hardstands to achieve a sealed surface by undertaking the following: ○ Placement of a 0.2 mm polyethylene damp-proof membrane in accordance with AS 2870-2011 placed between the underside of the slab and the ground with a minimum 200mm lap between sheets and all joints fully taped; ○ The slab is to have an appropriate Exposure Classification in accordance with Section 4 of AS 3600:2018; ○ The minimum strength, curing and cover to reinforcing requirements all be as specified in Section 4 of AS 3600:2018; ○ The slab to be reinforced for strength in accordance with Section 9.1 of AS	As shown on Figure 2 in Schedule 1: Maps, labelled Covered Recycling Drop Off, White Goods, E-Waste, Oil, Drums, Tyres Large Item Collection, and 20kL Oil Receptacle

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		3600:2018 and for a degree of crack control in accordance with Section 9.5 of AS 3600:2018 for the appropriate Exposure Classification; and ○ All joints, cuts and incisions within the concrete should be sealed to ensure a uniform permeability across the slab. • 20 kL oil receptacle constructed on a concrete hardstand and bunded to ensure a net capacity of 110% of the capacity of the oil receptacle; and • Area to be graded so that all stormwater is directed into the Surface Water Management System.	
4.	Mixed Waste Drop-off Facility	• Constructed with a canopy large enough to cover six hook lift bins; • Concrete hardstands to achieve a sealed surface by undertaking the following: ○ Placement of a 0.2 mm polyethylene damp-proof membrane in accordance with AS 2870-2011 placed between the underside of the slab and the ground with a minimum 200mm lap between sheets and all joints fully taped; ○ The slab is to have an appropriate Exposure Classification in accordance with Section 4 of AS 3600:2018; ○ The minimum strength, curing and cover to reinforcing requirements all be as specified in Section 4 of AS 3600:2018; ○ The slab to be reinforced for strength in accordance with Section 9.1 of AS 3600:2018 and for a degree of crack control in accordance with Section 9.5 of AS 3600:2018 for the appropriate Exposure Classification; and ○ All joints, cuts and incisions within the concrete should be sealed to ensure a uniform permeability across the slab. • Area to be graded so that all stormwater is directed into the Surface Water Management System.	As shown on Figure 2 in Schedule 1: Maps, labelled as Covered Refuse Drop Off
5.	Stockpile and Processing Area	• Green waste and stockpile storage area to be constructed of compacted Pindan compacted to at least 95% of modified maximum dry density;	As shown on Figure 2 in Schedule 1: Maps, shown as the two areas adjacent on the north and

	Infrastructure	Design and construction / installation requirements	Infrastructure location

		• Constructed to achieve a coefficient of permeability of $1x10^{-8}$ m/s or less;
		• Constructed at least 300 mm thick;
		• Installed in successive layers up to 300 mm uncompacted thickness, with each underlying layer scoured to prevent excessive permeability because of lamination;
		• Constructed with a suitable protective layer at least 150 mm think overlying the compacted Pindan layer;
		• Green waste storage area to be graded so that all stormwater / leachate is directed towards the green waste retention pond;
		• Stockpile storage area to be graded so that all stormwater / leachate is directed towards the Surface Water Management System;
		• Concrete hardstand of 600 m^2 for the storage of end-of-life light vehicles to achieve a sealed surface by undertaking the following:
		  ○ Placement of a 0.2 mm polyethylene damp-proof membrane in accordance with AS 2870-2011 placed between the underside of the slab and the ground with a minimum 200mm lap between sheets and all joints fully taped;
		  ○ The slab is to have an appropriate Exposure Classification in accordance with Section 4 of AS 3600:2018;
		  ○ The minimum strength, curing and cover to reinforcing requirements all be as specified in Section 4 of AS 3600:2018;
		  ○ The slab to be reinforced for strength in accordance with Section 9.1 of AS 3600:2018 and for a degree of crack control in accordance with Section 9.5 of AS 3600:2018 for the appropriate Exposure Classification; and
		  ○ All joints, cuts and incisions within the concrete should be sealed to ensure a uniform permeability across the slab.
		• Concrete hardstand to be sloped toward a sump containing an oil-water separator or other similar interceptor;
		• Sump designed so that water discharged
			south of the Green waste Retention Pond

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		from the oil-water separator is directed into the Surface Water Collection Pond; and • Concrete hardstand area contains a suitable designated bunded area for the crushing of cars.	
6.	Workshop and depollution facility	• Concrete hardstands to achieve a sealed surface by undertaking the following: ○ Placement of a 0.2 mm polyethylene damp-proof membrane in accordance with AS 2870-2011 placed between the underside of the slab and the ground with a minimum 200mm lap between sheets and all joints fully taped; ○ The slab is to have an appropriate Exposure Classification in accordance with Section 4 of AS 3600:2018; ○ The minimum strength, curing and cover to reinforcing requirements all be as specified in Section 4 of AS 3600:2018; ○ The slab to be reinforced for strength in accordance with Section 9.1 of AS 3600:2018 and for a degree of crack control in accordance with Section 9.5 of AS 3600:2018 for the appropriate Exposure Classification; and ○ All joints, cuts and incisions within the concrete should be sealed to ensure a uniform permeability across the slab. • Must have a central concrete pit capable of capturing a volume of approximately 4,600 L; • The workshop floor must be graded to the central pit; and • The workshop must be undercover.	As shown on Figure 2 in Schedule 1: Maps, labelled as Workshop
7.	Supporting Infrastructure	• Washdown bay to be constructed of a concrete hardstand area graded so that all water flows into a sediment catchment pit; and • Must include a weighbridge.	As shown on Figure 2 in Schedule 1: Maps, labelled as Washdown Bay and Weighbridge
Tyre Monocell			
8.	Tyre Monocell	• Active landfill area full extent to be no more than 4,200 m^2 (35m x 121 m); • Constructed as a series of trenches on an as need basis; and	As shown on Figure 2 in Schedule 1: Maps, labelled as Tyre Monocell

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		• Depth of trenches to be no more than 4 m.	
Surface Water Management System			
9.	Green waste Retention Pond	• Approximately 186 m (long), 45 m (wide) and 4.4 m (deep); • Have an operational capacity of approximately 12,973 m^3; • Constructed with a 300 mm thick compacted subgrade layer; • Constructed with 1:3 / 1:4 [V:H] side slopes; • Must maintain a minimum freeboard of 500 mm at all times; and • Designed to overflow into the surface water collection pond.	As shown on Figure 2 in Schedule 1: Maps, labelled as Green Waste Retention Pond
10.	Community Recycling Centre Retention Pond	• Approximately 50 m (long), 92 m (wide) and 1.8 m (deep); • Have an operational capacity of 5,220 m^3; • Constructed with a 300 mm thick compacted subgrade layer; • Constructed with 1:3 / 1:4 [V:H] side slopes; • Must maintain a minimum freeboard of 500 mm at all times; and • Designed to overflow into the surface water collection pond.	As shown on Figure 2 in Schedule 1: Maps, labelled as Drainage Basin
11.	Surface Waste Collection Pond	• Approximately 136 m (long), 155 m (wide) and 5.9 m (deep); • Have an operational capacity of 59,516 m^3; • Constructed with a 300 mm thick compacted subgrade layer; • Lined with a 2 mm double-textured geomembrane; • Constructed with a 1:3 [V:H] side slope; • Cargo netting / roped egress points to be installed on the interior face; • Must maintain a minimum freeboard of 500 mm at all times; and • Designed to overflow into the Surface Water Infiltration Pond via a controllable spillway.	As shown on Figure 2 in Schedule 1: Maps, labelled as Surface Water Collection Pond
12.	Surface Water Infiltration Pond	• Approximately 136 m (long), 156 m (wide) and 4.5 m (deep);	As shown on Figure 2 in Schedule 1: Maps, labelled as

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		• Have an operational capacity of 15,950 m^3; • Be unlined and uncompacted; • Constructed with a 1:4 [V:H] side slope; • Must maintain a minimum freeboard of 500 mm at all times.	Surface Water Infiltration Pond
13.	Levee	• Levee to be constructed along the north, east and south boundaries of the premises; • Constructed from compacted soil to a minimum of 95% Maximum Modified Dry Density (MMDD); • Primary levee bund to be a minimum of 2,242 m long and the secondary levee (southern side only) to be a minimum 650 m long; • Height of approximately 1.3 m; • Top width of approximately 2 m; • Maximum bottom width of 12.5 m; • Side slopes of 1:4 of [V:H]; • Associated with a 20 m drain with a maximum depth of 2 m that continues to the end of the levee bund; • Armour rock to be located at the northern batter of the 20 m wide swale at the channel bend within the southeast corner of the site. Rock armouring to consist of a separation geotextile, 150mm granular filter layer and 225mm minimum thickness of well graded riprap (125mm maximum stone diameter), placed to a height of up to 1.3m. Minimum thickness of armour rock to be 112.5 mm using a minimum stone size of 75 mm; and • Armour rock and sediment traps to be located at the discharge point of the 20 m swale.	As shown on Figure 2 in Schedule 1: Maps
14.	All	• Drainage channels in the form of trapezoidal open swales constructed throughout the premises as shown on Figure 2 in Schedule 1: Maps; • Rock armouring to be installed at strategic points on high-throughput swales (greater than 2.0 m/s) in steeper swale sections, at bends, junctions and intersection points; and • Surface Water Management System to be constructed as per the Broome Surface	As shown on Figure 2 in Schedule 1: Maps

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		Water Management Plan.	
Fire Management			
15.	All	• Dedicated 26kL firefighting storage water tank; • Fire break established around the perimeter of the premises; • Fire extinguishers and hose reels installed at strategic locations; and • All buildings to comply with the Department of Fire and Emergency Services (DFES) guidance titled 'Site Planning and Fire Appliance Specifications' (DFES, 2015).	N/A
Security			
16.	Perimeter fence	• Installed around the entirety of the perimeter boundary.	As shown on Figure 2 in Schedule 1: Maps, labelled as Perimeter Fence
Wash Down Bay			
17.	Wash down bay	• Concrete hardstands to achieve a sealed surface by undertaking the following: ○ Placement of a 0.2 mm polyethylene damp-proof membrane in accordance with AS 2870-2011 placed between the underside of the slab and the ground with a minimum 200mm lap between sheets and all joints fully taped; ○ The slab is to have an appropriate Exposure Classification in accordance with Section 4 of AS 3600:2018; ○ The minimum strength, curing and cover to reinforcing requirements all be as specified in Section 4 of AS 3600:2018; ○ The slab to be reinforced for strength in accordance with Section 9.1 of AS 3600:2018 and for a degree of crack control in accordance with Section 9.5 of AS 3600:2018 for the appropriate Exposure Classification; and ○ All joints, cuts and incisions within the concrete should be sealed to ensure a uniform permeability across the slab. • All run off from the wash down bay to run	As shown on Figure 2 in Schedule 1: Maps labelled as washbay

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		into a concrete sump.	
Groundwater Monitoring Network			
18.	Groundwater monitoring bores	• Groundwater monitoring bores must be designed and constructed in accordance with ASTM D5092-04: Standard practice for design and installation of groundwater monitoring wells; • GW02-D to be re-drilled and installed so that the standing water level lies approximately within the middle of a 3-5 m screen interval; and • New groundwater monitoring bores must be installed in the following locations: (a) immediately downgradient of the green waste retention pond; (b) midpoint of the western boundary; (c) midpoint of the northern boundary; and (d) midpoint of the southern boundary.	As shown on Figure 3 in Schedule 1: Maps

2. The works approval holder must:

(a) construct the critical containment infrastructure;

(b) in accordance with the corresponding design and construction requirements; and

(c) at the corresponding infrastructure location,

as set out in Table 2.

Table 2: Critical containment infrastructure design and construction requirements

	Infrastructure	Design and construction requirements	Infrastructure location
Liquid Waste Facility			
1.	Sullage Facility	• Ponds to be fully enclosed by a 1.8 m chain-link fence. Receival ponds x2: • In-situ reinforced concrete ponds with a minimum thickness of 150 mm; • Concrete hardstands to achieve a sealed surface by undertaking the following: o Placement of a 0.2 mm polyethylene damp-proof membrane in accordance with	As shown on Figure 2 in Schedule 1: Maps labelled as Sullage Receival and Evaporation Ponds

	Infrastructure	Design and construction requirements	Infrastructure location
		AS 2870-2011 placed between the underside of the slab and the ground with a minimum 200mm lap between sheets and all joints fully taped; ○ The slab is to have an appropriate Exposure Classification in accordance with Section 4 of AS 3600:2018; ○ The minimum strength, curing and cover to reinforcing requirements all be as specified in Section 4 of AS 3600:2018; ○ The slab to be reinforced for strength in accordance with Section 9.1 of AS 3600:2018 and for a degree of crack control in accordance with Section 9.5 of AS 3600:2018 for the appropriate Exposure Classification; and ○ All joints, cuts and incisions within the concrete should be sealed to ensure a uniform permeability across the slab. • Approximately 15 m (long), 15 m (wide) and 3.5 m (deep); • 1:1 side slopes of [V:H] (m); • Operational volume of 372 m^3 per pond; • Must maintain a minimum freeboard of 500 mm at all times; • Each pond to have a three-sided 2 m by 3 m concrete pit with a spillway leading into the pond; and • Concrete bund surrounding each receival pond. Evaporation pond: • Lined with a 300 mm thick compacted subgrade layer, a 2 mm High Density Polyethylene (HDPE) double-textured geomembrane layer, a protection geotextile and a 150 mm thick road base layer; • Subgrade layer constructed to achieve a permeability of $1x10^{-8}$ m/s or less; • Approximately 50 m (long), 50 m (wide) and 2.75 m (deep); • The bank shall have a minimum width of 2.4 m and shall be raised at least	

	Infrastructure	Design and construction requirements	Infrastructure location
		228 mm above natural ground level; • 1:3 side slopes of [V:H] (m); • Operational volume of 3,679 m^3; and • Must maintain a minimum freeboard of 500 mm at all times.	
2.	Industrial Liquid Waste Facility	• Two ponds lined with a 300 mm thick compacted subgrade layer and a 2 mm High Density Polyethylene (HDPE) double-textured geomembrane layer; • Subgrade layer constructed to achieve a permeability of $1x10^{-8}$ m/s or less; • Each pond 119 m (long), 47.5 m (wide) and 2 m (deep); • 1:3 side slopes of [V:H] (m); • Each pond to have an operational volume of 6,700 m^3; • Each pond must maintain a minimum freeboard of 500 mm at all times; • Each pond to have an in-situ reinforced concrete discharge pit; and • Ponds to be fully enclosed by a 1.8 m chain-link fence.	As shown on Figure 2 in Schedule 1: Maps labelled as Sullage Receival and Evaporation Ponds

Compliance and Construction Quality Assurance Reporting

3. The works approval holder must within 30 calendar days of all items of infrastructure or equipment required by condition 1 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 1; and

(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

4. The Environmental Compliance Report required by condition 3, must include as a minimum the following:

(a) certification by a suitably qualified civil or geotechnical engineer (or equivalent) that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in conditions1;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1;

(c) includes groundwater monitoring well construction report detailing as-constructed design, soil logs and survey details (vertical top of casing, casing height and ground level and geospatial position of each well), development procedures and other relevant information; and

(d) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

5. The works approval holder must within 30 calendar days of the Critical Containment Infrastructure identified by condition 2 being constructed:

(a) undertake an audit of their compliance with the requirements of condition 2; and

(b) prepare and submit to the CEO a Critical Containment Infrastructure Report on that compliance.

6. The Critical Containment Infrastructure Report required by condition 5 must include as a minimum the following:

(a) certification by a suitably qualified civil or geotechnical engineer or accredited testing authority that each item of critical containment infrastructure or component thereof, as specified in condition 2, has been built and installed in accordance with the requirements specified in condition 2;

(b) certification that the sub-grade and liner components are free of fault or defect, built to the design specification and for the intended purpose;

(c) as constructed plans and a detailed site plan showing the location and dimensions for each item of critical containment infrastructure or component thereof, as specified in condition 2;

(d) photographic evidence of the installation of the infrastructure;

(e) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person; and

(f) a Quality Control / Quality Assurance Certificate[1] from an independent third party which demonstrates that the liner systems meet the specifications outlined within the Liquid Waste Facility & Surface Water Management System Technical Specifications (Talis, 2022).

Note 1: the certification required by sub-provision (f) must include an assessment of construction quality assurance test results against the minimum values for material properties or other installation requirements as specified in the Technical Specification.

Time limited operations phase

Commencement and duration

7. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 when the Environmental Compliance Report as required by condition 3 has been submitted by the works approval holder for that item of infrastructure.

8. The works approval holder may only commence time limited operations for an item of critical containment infrastructure identified in condition 2 when at least 20 business days have passed after the Critical Containment Infrastructure Report for that item of infrastructure as required by condition 5 has been submitted to the CEO.

9. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 10:

(a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of conditions 7 and 8 for that item of infrastructure; or

(b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 9(a).

Infrastructure requirements

10. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 3 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 3.

Table 3: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
Plant and Machinery			
1.	All plant and machinery	• All equipment, plant and machinery is to be maintained in good working order and serviced as per the manufacturers specifications; and • All site vehicles and plant to be fitted with broadband reverse alarms.	N/A

	Site infrastructure and equipment	Operational requirement	Infrastructure location
Community Recycling Centre			
2.	Green waste Drop Off and Mulch Collection Area	• Must be comprised of an impervious sealed concrete hardstand; and • Area to be graded so that all stormwater / leachate is directed towards the green waste retention pond.	As shown on Figure 2 in Schedule 1: Maps, labelled as Green waste
3.	Hazardous Household Waste Facility	• Must be comprised of an impervious sealed concrete hardstand; and • Consist of an enclosed, covered and lockable shed.	As shown on Figure 2 in Schedule 1: Maps, labelled as Hazardous Household Waste Shed
4.	Recycling Drop Off Area	• Small canopy covering part of the area; • Must contain areas of an impervious sealed concrete hardstand for the storage of waste; • Must contain a 20 kL oil receptacle on an impervious sealed concrete hardstand and bunded to ensure a net capacity of 110% of the capacity of the oil receptacle; and • Area to be graded so that all stormwater is directed into the Surface Water Management System.	As shown on Figure 2 in Schedule 1: Maps, labelled Covered Recycling Drop Off, White Goods, E-Waste, Oil, Drums, Tyres Large Item Collection, and 20kL Oil Receptacle
5.	Mixed Waste Drop-off Facility	• Has a canopy large enough to cover six hook lift bins; • Must contain areas of an impervious sealed concrete hardstand for the storage of waste; and • Area to be graded so that all stormwater is directed into the Surface Water Management System.	As shown on Figure 2 in Schedule 1: Maps, labelled as Covered Refuse Drop Off
6.	Stockpile and Processing Area	• Must contain a 600 m^2 area of impervious sealed concrete hardstand for the storage of end-of-life vehicles; • Concrete hardstand to be sloped toward a sump containing an oil-water separator or other similar interceptor; • Water discharge from the water-oil separator to be directed into the Surface Water Collection Pond; • Designated bunded area on the concrete hardstand for the crushing of end-of-life vehicles; • Green waste storage area and stockpile	As shown on Figure 2 in Schedule 1: Maps, shown as the two areas adjacent north and south of the Green waste Retention Pond

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		storage area located on a compacted Pindan hardstand; • Green waste storage area to be graded so that all stormwater / leachate is directed towards the green waste retention pond; and • Stockpile storage area to be graded so that all stormwater / leachate is directed towards the Surface Water Management System.	
7.	Workshop and depollution facility	• Must contain an impervious sealed concrete handstand floor; • Concrete hardstand to be sloped toward a central pit; • Central pit to be kept clean and free of liquids when not in use; and • Workshop to be undercover.	As shown on Figure 2 in Schedule 1: Maps, labelled as Workshop
8.	Supporting Infrastructure	• Must include a weighbridge.	As shown on Figure 2 in Schedule 1: Maps, labelled as Washdown Bay and Weighbridge
Tyre monocell			
9.	Tyre monocell	• Active landfill area full extent to be no more than 4,200 m^2 (35m x 121 m); • Constructed as a series of trenches on an as need basis; and • Depth of trenches to be no more than 4 m.	As shown on Figure 2 in Schedule 1: Maps, labelled as Tyre Monocell
Liquid Waste Facility			
10.	Sullage Facility	• Ponds to be fully enclosed by a 1.8 m chain-link fence. Receival ponds x2: • In-situ reinforced concrete ponds with a minimum thickness of 150 mm; • Approximately 15 m (long), 15 m (wide) and 3.5 m (deep); • Operational volume of 372 m^3 per pond; • Must maintain a minimum freeboard of 500 mm at all times; • Each pond to have a three-sided 2 m by 3 m concrete pit with a spillway leading into the pond; and	As shown on Figure 2 in Schedule 1: Maps, labelled as Sullage Receival and Evaporation Ponds

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		• Concrete bund surrounding each receival pond. Evaporation pond: • Lined with a 300 mm thick compacted subgrade layer, a 2 mm High Density Polyethylene (HDPE) double-textured geomembrane layer, a protection geotextile and a 150 mm thick road base layer; • Approximately 50 m (long), 50 m (wide) and 2.75 m (deep); • Operational volume of 3,679 m^3; and • Must maintain a minimum freeboard of 500 mm at all times.	
11.	Industrial Liquid Waste Facility	• Two ponds lined with a 300 mm thick compacted subgrade layer and a 2 mm High Density Polyethylene (HDPE) double-textured geomembrane layer; • Each pond 119 m (long), 47.5 m (wide) and 2 m (deep); • Each pond to have an operational volume of 6,700 m^3; • Each pond must maintain a minimum freeboard of 500 mm at all times; • Each pond to have an in-situ reinforced concrete discharge pit; and • Ponds to be fully enclosed by a 1.8 m chain-link fence.	As shown on Figure 2 in Schedule 1: Maps, labelled as Sullage Receival and Evaporation Ponds
Surface Water Management Facility			
12.	Green waste Retention Pond	• Approximately 186 m (long), 45 m (wide) and 4.4 m (deep); • Have an operational capacity of approximately 12,973 m^3; • 300 mm thick compacted subgrade layer; • 1:3 / 1:4 [V:H] side slopes; • Must maintain a minimum freeboard of 500 mm at all times; and • Overflows into the surface water collection pond.	As shown on Figure 2 in Schedule 1: Maps, labelled as Green waste Retention Pond
13.	Community Recycling Centre Retention Pond	• Approximately 50 m (long), 92 m (wide) and 1.8 m (deep); • Have an operational capacity of 5,220 m^3; • 300 mm thick compacted subgrade layer;	As shown on Figure 2 in Schedule 1: Maps, labelled as Drainage Basin

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		• 1:3 / 1:4 [V:H] side slopes; • Must maintain a minimum freeboard of 500 mm at all times; and • Overflows into the surface water collection pond.	
14.	Surface Waste Collection Pond	• Approximately 136 m (long), 155 m (wide) and 5.9 m (deep); • Have an operational capacity of 59,516 m^3; • 300 mm thick compacted subgrade layer; • Lined with a 2 mm double-textured geomembrane; • 1:3 [V:H] side slope; • Cargo netting / roped egress points to be installed on the interior face; • Must maintain a minimum freeboard of 500 mm at all times; and • Overflows into the Surface Water Infiltration Pond via a controllable spillway.	As shown on Figure 2 in Schedule 1: Maps, labelled as Surface Water Collection Pond
15.	Surface Water Infiltration Pond	• Approximately 136 m (long), 156 m (wide) and 4.5 m (deep); • Have an operational capacity of 15,950 m^3; • Be unlined and uncompacted; • 1:4 [V:H] side slope; • Must maintain a minimum freeboard of 500 mm at all times.	As shown on Figure 2 in Schedule 1: Maps, labelled as Surface Water Infiltration Pond
16.	Levee	• Levee to be constructed along the north, east and south boundaries of the premises; • Constructed from compacted soil to a minimum of 95% Maximum Modified Dry Density (MMDD); • Primary levee bund to be a minimum of 2,242 m long and the secondary levee (southern side only) to be a minimum 650 m long; • Height of approximately 1.3 m; • Top width of approximately 2 m; • Maximum bottom width of 12.5 m; • Side slopes of 1:4 of [V:H]; • Associated with a 20 m drain with a maximum depth of 2 m that continues to the end of the levee bund;	As shown on Figure 2 in Schedule 1: Maps

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		• Armour rock to be located at the northern batter of the 20 m wide swale at the channel bend within the southeast corner of the site. Rock armouring to consist of a separation geotextile, 150mm granular filter layer and 225mm minimum thickness of well graded riprap (125mm maximum stone diameter), placed to a height of up to 1.3m. Minimum thickness of armour rock to be 112.5 mm using a minimum stone size of 75 mm; and • Armour rock and sediment traps to be located at the discharge point of the 20 m swale.	
17.	All	• Drainage channels in the form of trapezoidal open swales constructed throughout the premises as shown on Figure 2 in Schedule 1: Maps; • Rock armouring to be installed at strategic points on high-throughput swales (greater than 2.0 m/s) in steeper swale sections, at bends, junctions and intersection points; and • Surface Water Management System to be constructed as per the Broome Surface Water Management Plan.	As shown on Figure 2 in Schedule 1: Maps
Fire Management			
18.	All	• Dedicated 26kL firefighting storage water tank; • Fire break established and maintained around the perimeter of the premises; • Fire extinguishers and hose reels installed and maintained at strategic locations; and • All buildings to comply with the the Department of Fire and Emergency Services (DFES) guidance titled 'Site Planning and Fire Appliance Specifications' (DFES, 2015).	N/A
Security			
19.	Perimeter fence	• 1.8 m cyclone wire mesh fence to be installed and maintained around the entire perimeter of the premises; and • Perimeter fence to be monitored weekly.	As shown on Figure 2 in Schedule 1: Maps, labelled as Perimeter Fence
Wash down bay			
20.	Wash down bay	• Washdown bay to be constructed of an	As shown on Figure 2 in

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		impervious sealed concrete hardstand area; and • All run off from the wash down bay to run into a concrete sump.	Schedule 1: Maps, labelled as washbay

General site management requirements

11. The works approval holder must:

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

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

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

12. The works approval holder must ensure that operations at the premises only occur between the hours of 07:30 to 15:30, on the days of Monday through to Saturday and 08:00 to 14:00 on Sundays.

13. The works approval holder must install and maintain a sign at the entrance of the premises which clearly displays the following information:

(a) hours of operation;

(b) contact telephone number;

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

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

14. The works approval holder must display signage at the premises limiting vehicle speeds to 10 km/hr.

15. The works approval holder must implement control measures to prevent infestations of pests, flies, vermin and weeds at the premises including the following:

(a) Implement a Weed Management Plan and Feral Animal and Vermin Management Plan;

(b) If any feral animal is detected during monitoring, eradiation and management measures to be implemented in accordance with the Feral Animal and Vermin Management Plan;

(c) Undertake monthly site weed inspections and engage a suitably qualified contractor to undertake a biannual whole of site weed inspection and review; and

(d) If weeds are found to be established on the premises, then a suitably qualified contractor will be engaged to undertake weed management and eradication.

Waste acceptance

16. The works approval holder must only accept onto the premises waste of a type that:

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

(b) meets the relevant acceptance specification,

as set out in Table 4.

Table 4: Waste acceptance criteria

Waste type	Rate at which waste is received	Acceptance specification[1]
Clean fill	Combined total of no more than 100,000 tonnes per annual period	None specified
Inert Waste Type 1		
Inert Waste Type 2 (excluding tyres)		
Putrescible Waste		
White goods and e-waste		
Scrap Metal		
Household hazardous wastes		Includes only: • Acids and Alkalis; • Aerosol cans; • Batteries (car and household); • Engine coolants & glycols • Fire extinguishers – non-halon (red); • Flammables; • Flares; • Fluorescent Lamps and Tubes (CFLs); • Gas cylinders (small household); • Household chemicals and cleaners; • Paint; • Pesticides/Herbicides; • Poisons/Toxics; • Pool Chemicals; • Smoke detectors; and • Unknown chemicals (must be in sealed, chemical resistant containers).
Tyres	No more than 100,000 tyres per annual period	None specified
Green waste	Combined total of no more than 10,000 tonnes per annual period	• Does not include treated timber.
Light vehicles	No more than 200 cars per annual period	None specified

Waste type	Rate at which waste is received	Acceptance specification[1]
Liquid Wastes	Combined total of no more than 15,000 tonnes per annual period	Includes only: • Oil and grease (Waste code – J100); • Septage wastes (Waste Code K210); • Car and truck wash waters (Waste code L100); • Industrial wash waters (Waste code L150); • Non-halogenated organic chemicals (e.g. brake fluid, coolant and radiator fluid) (Waste code M130); and • Industrial waste treatment plant residue (Waste code N205). Does not include PFAS contaminated wastes.

Note 1: Waste codes are specified for purposes of waste tracking and reporting as defined in the Department of Water and Environmental Regulation's "Controlled waste category list" (May 2018) (as amended from time to time). Where the 'waste code' number changes the general description as specified in the table prevails.

17. Where waste does not meet the waste acceptance criteria set out in condition 16, the works approval holder must:

(a) 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

(b) reject the waste and have it removed from the premises by the waste supplier's delivery vehicle; or

(c) where the waste supplier cannot immediately remove the waste in the delivery vehicle, it is stored in a quarantined storage area or container and removed to an appropriately authorised facility within seven days of receipt.

18. Where waste does not meet the waste acceptance criteria set out in condition 16 because it contains, or is suspected to contain, asbestos or ACM, the licence holder must ensure that the actions specified in condition 17 are implemented in accordance with the following requirements:

(a) if the waste is to be immediately rejected, it is wet down prior to reloading into the delivery vehicle; or

(b) if the waste is to be temporarily stored in a quarantined storage area or container, it is wrapped or otherwise contained in a manner that prevents release of asbestos fibres and clearly labelled before being placed in the quarantined storage area or container.

Waste processing

19. The works approval holder must ensure that wastes accepted onto the premises are only subjected to the processes set on in Table 5 and in accordance with any process limits described in that table.

Table 5: Waste Processing

Waste type(s)	Process	Process limits
All	Acceptance and processing	(a) Receival, handling and processing of waste shall cease during a severe weather warning for damaging winds or in the event of a yellow level, or higher than yellow level, cyclone alert as issued by the Department of Fire and Emergency Services (DFES)
Clean fill	Acceptance, storage and re-use on site	(a) None specified
Inert Waste Type 1 accepted for Category 13 activities	Acceptance, stockpiling of C&D material, crushing and screening and storage of processed material	(a) All waste must be: • processed into a product; or • managed as a waste. (b) No more than 40,000 tonnes per annual period of waste to be accepted. (c) Acceptance, handling and storage of C&D material must be managed in accordance with the asbestos management conditions of this licence. (d) Crushing, screening and storage shall only take place on the Mixed Construction and Demolition Waste area as shown in Schedule 1: Maps. (e) Dust suppression sprinkler systems must be active on the crushing and screening equipment during operations.
Inert waste type 2 (excluding tyres) accepted for Category 62	Acceptance and stockpiling	(a) None specified
Putrescible waste – green waste accepted for Category 61A	Acceptance, storage and grinding/shredding of green waste	(a) Following acceptance onto the premises, all green waste is to be covered until being unloaded onto the designated green waste processing hardstand. (b) Acceptance of community green waste and collection of mulch must only occur on the Green Waste Drop Off and Mulch Collection Area. (c) Acceptance of commercial green waste to only occur on the Stockpile and Processing Area. (d) Blending, storage, grinding and shredding must only occur on the

Waste type(s)	Process	Process limits
		Stockpile and Processing Area. (e) No green waste to be stored within 100m of flammable material or the premises boundary. (f) Temperature within stockpiles/windrows to be maintained below 75°C.
Putrescible waste (excluding green waste) accepted for Category 62	Acceptance and storage of putrescible waste (excluding green waste)	(g) Putrescible materials to be removed off site on a monthly basis.
Tyres accepted for Category 57 and 63	Acceptance, storage and burial of tyres within the Tyre Monocell	(a) No more than 100 tyres to be stored at the CRC Storage area any one time. (b) Tyres to be transferred from the CRC Storage area to the Tyre Monocell on a twice-weekly basis. (c) Tyres to be stacked within the monocell on their sidewall or bailed with a non-combustible securing device at no more than 2 m high. (d) Each monocell to be located a minimum of 10m from any fence, combustible material or walls and located on ground level. (e) Trenches within the monocell to be excavated on an as-need basis. (f) No more than 1,000 tyres to be placed within each cell. (g) Each cell to be 2m in height and separated with a 300mm thick soil separation layer. (h) Trenches to be progressively capped with a 1,000mm thick layer of restoration soils and rehabilitated.
White goods and e-waste accepted for Category 62	Acceptance, storage and processing of white goods and e-waste	(a) E-waste to be stored within receptables and removed from site on a periodic basis. (b) White goods to be stored within a designated area to be degassed by a suitably licensed person before being moved into the scrap metal stockpile.
Scrap metal	Acceptance and storage of scrap metal	(a) Stockpile height limited to 5m.
Light vehicles	Acceptance, storage and processing of light vehicles	(a) All vehicles must be stored on the designated hardstand as specified in Condition 10 (item 6). (b) Depollution of cars only permitted in the designated workshop and depollution facility as specified in Condition 10 (item 7). (c) Depollution activities must only be carried out by suitably qualified

Waste type(s)	Process	Process limits
		personnel. (d) Any liquids or gases captured in the depollution process must be put into industry standard receptacles as appropriate. (e) Any liquid spills captured in the central pit during depollution activities must be pumped out and disposed of at an appropriately licensed facility. (f) Crushing and bailing of vehicle bodies only permitted on the designated hardstand as specified in Condition 10 (item 6). (g) Crushing of vehicle bodies only permitted within the designated bunded area on the concrete hardstand. (h) All vehicles to be stripped prior to crushing or bailing. (i) Only depolluted vehicles are permitted to be crushed and bailed. (j) No shearing, cutting or fragmenting of car bodies permitted on the premises. (k) Uncrushed car bodies stacked no more than 2 high and crushed car bodies to be stacked no more than 4 high. (l) Removed from the premises at a minimum of once per year. (m) Floc must not be allowed to accumulate on the concrete hardstand. (n) All liquid that falls onto the concrete hardstand must be directed into a sump containing an oil-water separator.
Household hazardous Wastes accepted for Category 62	Acceptance and storage of Household Hazardous Waste	(a) Limited to domestic waste only. (b) Household Hazardous Waste acceptance limited to 20kg or L per material type. (c) Stored inside the Household Hazardous Waste Shed as shown in Schedule 1: Maps with the exception of oil and gas bottles. (d) Gas bottles to be stored outside in a suitably designed cage. (e) Liquid wastes must be stored in a bunded area or on a bunded pallet. (f) No consolidation of waste to occur on the premises. (g) Waste must be stored in a way that prevents the mixing of incompatible

Waste type(s)	Process	Process limits
		waste types. (h) After acceptance, waste oil to be transferred and stored within the Oil Receptacle as shown in Schedule 1: Maps at the end of each day.
Liquid wastes accepted for Category 61	Acceptance, processing and storage of liquid waste	(a) Sludges and solids removed from the treatment ponds must be removed offsite to an appropriate licensed facility. (b) Prior to entering any treatment process the works approval holder must ensure that liquid wastes are adequately characterised to prevent incompatible waste types being mixed in the treatment process. (c) Only septage waste, oil and grease may be disposed of into the sullage receival ponds. (d) Septage waste is not permitted to be disposed of in the industrial liquid waste ponds.

Processing of green waste (Category 61A)

20. The works approval holder must manage windrows and stockpiles on the Stockpile and Processing Area to ensure:

(a) individual windrows or stockpiles have maximum dimensions of 10 m wide, 3 m high and 50 m long;

(b) individual windrows or stockpiles are separated by a minimum of at least 6 metres of clear ground; and

(c) windrows or stockpiles are separated from the edge of the Stockpile and Processing Area by a minimum of at least 3 metres of clear ground.

21. The licence holder must ensure that recycled organic products and feedstocks are separated so that cross-contamination between these materials, including from leachate or stormwater is prevented.

Asbestos management during time limited operations (Category 13)

22. The works approval 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:

(vi) waste acceptance;
(vii) waste processing; and
(viii) recycled products generated from construction and demolition waste,

(b) operating procedures and management practices to mitigate the risks from asbestos or ACM at each stage of operations as set out it condition 22(a);

(c) monitoring (including visual inspections), sampling and analysis to identify asbestos contamination at each stage of operations as set out it condition 22(a);

(d) actions to control any asbestos or ACM detected at each stage of operations as set out it condition 22(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 products;

(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.

23. The works approval holder must maintain a clearly visible sign specifying "No Asbestos" at the entry to the premises.

24. The works approval holder must ensure water is routinely applied to each load of inert waste type 1 accepted for Category 13 activities entering the premises, to ensure all loads are wetted prior to unloading, and maintained in a damp state throughout the inspection process.

25. The works approval holder must:

(a) visually inspect all loads of inert waste type 1 accepted for Category 13 activities 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: Asbestos risk classification procedure.

26. Upon acceptance of the waste, the works approval 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.

27. The works approval 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: High risk load procedure.

28. The works approval holder must continue to visually inspect waste at the premises at all stages of the storage, sorting and screening process. Suspected asbestos or ACM identified at any stage of the process must be handled in accordance with the procedure set out in Schedule 3: High risk load procedure.

29. The works approval 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.

30. The works approval holder must ensure that:

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

(b) unprocessed waste is kept clearly separated from tested products and processed waste awaiting testing, by a minimum three (3) metre distance from the base of the stockpile;

(c) products tested for asbestos or ACM and processed waste awaiting testing for asbestos or ACM are clearly separated by a minimum three (3) metre distance from the base of the stockpile; and

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

31. The works approval holder must ensure that residual wastes generated during processing are:

(a) collected and stored in a container; and

(b) removed to an appropriately authorised facility within four weeks of receipt.

32. The works approval holder must ensure that all stockpiles referenced in condition 30 are maintained in a damp state to prevent dust lift off.

33. The works approval holder must ensure that testing of all products is undertaken in accordance with the product testing procedures specified in Schedule 4: Asbestos monitoring and testing.

34. The works approval holder must ensure that 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 33 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.

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

(a) findings from the visual inspection of product stockpiles;

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

(c) a statement of limit of detection of the laboratory 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 product specification.

36. The works approval holder is not authorised to implement a reduced product testing rate as per the "Reduced sampling criteria" section of Schedule 4: Asbestos monitoring and testing.

37. The works approval holder must ensure personnel working on the premises undergo training when commencing a role at the premises and at least every two years following the initial training.

38. The training pursuant to condition 37 must cover:

(a) the health hazards associated with asbestos;

(b) the controls used to minimise dust emissions and exposure to asbestos dust;

(c) how to visually inspect waste and recognise different types of asbestos and ACM;

(d) procedures relevant to the person's role, such as processes for rejecting loads, classifying loads, unloading and inspecting low risk and high-risk loads, segregating and storing asbestos and ACM, recycled product quality monitoring and sampling, and recordkeeping;

(e) the use of fire-fighting equipment and fire management safety;

(f) emergency response procedures; and

(g) the requirements specified in the conditions of this licence, the Asbestos Management Plan and the DWER Asbestos Guidelines.

Emissions and discharges during time limited operations

39. The works approval holder shall immediately recover, or remove and dispose of, spills of environmentally hazardous materials including fuel, oil, or other hydrocarbons, whether inside or outside an engineered containment system.

40. The works approval holder shall 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.

41. The works approval holder must ensure that:

(a) all reasonable and practicable measures are taken to ensure that no windblown waste escapes from the premises; and

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

42. The works approval 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.

43. The works approval 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.

44. The works approval holder must ensure that no waste is burnt on the premises.

45. The works approval holder must immediately notify the CEO of:

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

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

46. The works approval holder must take all reasonable and practicable measures to prevent stormwater run-off becoming contaminated by the activities and operations undertaken at the premises.

47. The works approval holder must ensure that the emissions specified in Table 6, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 6: Authorised discharge points

Emission	Discharge point	Discharge point location
Stormwater	Surface Water Infiltration Pond	As shown in Schedule 1: Maps labelled as Surface Water Infiltration Ponds
	Surface Water Infiltration Pond discharge point	As shown in Schedule 1: Maps labelled as Surface Water Infiltration Ponds

48. The works approval holder must ensure that emissions from the discharge point listed in Table 7 for the corresponding parameters do not exceed the corresponding limit

listed in Table 7, when monitored in accordance with condition 54.

Table 7: Emission and discharge limits

Discharge point	Parameter	Limit
Surface Water Infiltration Pond	Total Recoverable Hydrocarbons	1 mg/L

Recycled organic product quality during time limited operations

49. The works approval holder must ensure that all recycled organic products do not exceed the upper contaminant limits set out in Schedule 5: Upper contaminant limits, based on the monitoring undertaken in accordance with condition 52, before they are removed from the premises for reuse off-site.

50. The works approval holder must ensure that any recycled organic products that exceed any upper contaminant limits in Schedule 5: Upper contaminant limits are either:

(a) reprocessed in a manner that will treat or remove the non-conforming contaminants to concentrations that comply with the upper contaminant limits in Schedule 5: Upper contaminant limits, with reprocessing starting within 30 days of confirmation of the non-conformance; or

(b) removed from the premises for disposal to an appropriately authorised facility within 30 days of confirmation of the non-conformance.

Monitoring during time limited operations

51. The works approval holder must record the total amount of waste accepted onto and removed from the premises in accordance with the specifications listed in Table 8.

Table 8: Waste accepted and removed from the premises

Inputs/Outputs	Waste type	Unit	Time period
Waste inputs	Waste types as defined in Table 4	Tonnes	Each load arriving at the premises
Waste outputs	All waste types as defined in the Landfill Definitions	Tonnes	Each load leaving or rejected from the premises

52. The works approval holder must monitor recycled organic products in accordance with Table 9.

Table 9: Recycled organic product quality sampling

Recycled organic product type	Parameter	Sampling method	Analytical method	Frequency

Green waste mulch	Arsenic, cadmium, boron, chromium (total), copper, lead, mercury, nickel, selenium and zinc	Composite sampling as per AS 4454 – Appendix A	AS 4454 – Appendix D	One composite sample per 5,000 tonnes of green waste mulch
	DDT/DDD/DDE, aldrin, dieldrin, chlordane, heptachlor, HCB, lindane and BHC			
	PCBs			
	Glass, metal and rigid plastics >2mm		AS 4454 – Appendix I	
	Plastics: light, flexible or film, including biodegradable and compostable types >5 mm			
	Viable plant propagules		AS 4454 – Appendix M	

53. The licence holder must ensure that sample analysis undertaken to comply with condition 52 is undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) for the relevant parameters.

54. The works approval holder must monitor emissions during time limited operations in accordance with Table 10.

Table 10: Emissions and discharge monitoring during time limited operations

Monitoring location	Parameter	Units	Averaging Period	Frequency	Method
Surface Water Collection Pond	pH[1]	pH units	Spot sample	Prior to release of water from the Surface Water Collection Pond into the Surface Water Infiltration Pond	Spot sample in accordance with AS/NZS 5667.1 and AS/NZS 5667.10
	Electrical Conductivity[1]	µS/cm			
	Total Dissolved Solids (TDS)	mg/L			
	Total Suspended Soils (TSS)				
	Total Nitrogen				
	Ammonium				
	Nitrate + Nitrite				
	Total Phosphorus				

Monitoring location	Parameter	Units	Averaging Period	Frequency	Method
	Biological Oxygen Demand (BOD)				
	TRH C_6-C_{10}				
	TRH C_{10}-C_{16}				
	TRH C_{16}-C_{34}				
	TRH C_{34}-C_{40}				
	Aluminium				
	Arsenic				
	Cadmium				
	Chromium (III)				
	Chromium (VI)				
	Copper				
	Manganese				
	Nickel				
	Lead				
	Zinc				
	Benzene, toluene, ethylbenzene and xylenes (BTEX)				
	Total Polycyclic Aromatic Hydrocarbons (PAH)				
	Naphthalene				

Note 1: In-field non-NATA accredited sampling permitted

55. The works approval holder must record the total amount of stormwater discharged from the premises in accordance with condition 47 and with the specifications listed in Table 11.

Table 11: Stormwater discharged off site

Emission	Discharge point	Unit	Time period
Stormwater	Surface Water Infiltration Pond	Time and estimated volume (Litres and kilolitres)	Following discharge from the Surface Water Collection Pond into the Surface Water Infiltration Pond
	Surface Water Infiltration Pond discharge point	Time and estimated volume (Litres and kilolitres)	Following a discharge event (offsite discharge via the swale)

56. The licence holder must monitor groundwater for concentrations of the identified parameter(s) in accordance with Table 12.

Table 12: Groundwater monitoring of ambient concentrations

Monitoring well location	Parameter	Unit	Frequency	Method
Groundwater monitoring bores GW1, GW3, GW2, GW4 & GW5	Standing water level (SWL)	m(AHD)	Continuous	Submersible water level datalogger or similar
	Electrical Conductivity (EC)	µS/cm		
Groundwater monitoring bores GW1, GW2, GW3, GW4, GW5, GW6 & GW7 and four new bores installed as per Table 1	**Field Parameters**			
	Standing water level (SWL)	m(AHD) and m(BGL)	Each quarterly period	Spot sample, in accordance with AS/NZS 5667.1 and AS/NZS 5667.11.
	pH[1]	pH units		
	Electrical Conductivity[1]	µS/cm		
	Dissolved Oxygen[1]	mg/L		
	Redox Potential[1]	mV		
	Temperature[1]	°C		
Groundwater monitoring bores GW1, GW2, GW3, GW4, GW5, GW6 & GW7 and four new bores installed as per Table 1	**Laboratory Parameters**			
	Ionic Balance: Ca, K, Mg, Na, Hardness-calc, OH, CO_3, HCO_3, total alkalinity, Cl, SO_4	mg/L	Each quarterly period	Spot sample, in accordance with AS/NZS 5667.1 and AS/NZS 5667.11.
	Electrical Conductivity (EC)	µS/cm		
	Total Dissolved Solids (TDS)	mg/L		
	Nutrients (Total N, TKN, NO_2-N, NO_3-N, NO_x-N, Org-N Total P, PO_4-P)	mg/L		
	Total Organic Carbon (TOC)	mg/L		

Monitoring well location	Parameter	Unit	Frequency	Method
	Biochemical Oxygen Demand (BOD)	mg/L		
	Chemical Oxygen Demand (COD)	mg/L		
	Total Recoverable Hydrocarbons (TRH) (Fractions C_6-C_{10}, C_{10}-C_{16}, C_{16}-C_{34}, C_{34}-C_{40})	µg/L		
	Benzene, Ethylbenzene, Toluene, Xylene and Naphthalene (BTEXN)	µg/L		
	Polyaromatic Hydrocarbons (PAHs)	mg/L		
	Dissolved metals (As, B, Cd, Co, Cr, Cu, Hg, Mn, Ni, Pb, Zn)	mg/L		
	PFAS – PFOS, PFOA & PFHxS	µg/L		
	Polychlorinated Biphenyls (PCBs)	µg/L	Each biannual period	
	Organochlorine pesticides (OCP)	µg/L		
	Organophosphorus pesticides (OPP)	µg/L		
	Chlorinated hydrocarbons (PCE, TCE, DCE, VC)	µg/L		
	Total phenolics as phenols	µg/L		
	Pathogens – Thermotolerant coliforms and *E. Coli*	MPN or cfu / 100mL		

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

57. In case of the occurrence of an Event as specified in Table 13, the works approval holder must take the relevant management action specified in that table.

Table 13: Management actions

Location	Event	Management Action
Groundwater monitoring bores GW1, GW2, GW3, GW4 & GW5	If reversal of groundwater flow is detected	(a) The works approval holder must notify the CEO within 24 hours; (b) The works approval holder must investigate the cause of the reversal within 24 hours; (c) Where the investigation identifies a spill or leak from containment infrastructure, the source of the spill or leak must be removed/contained within 48 hours; and (d) The works approval holder must report the results of the investigation including proposed resolutions within 7 days.

Compliance reporting

58. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 30 calendar days before the expiration date of the works approval, whichever is the sooner.

59. The works approval holder must ensure the report required by condition 58 includes the following:

(a) a summary of the time limited operations, including timeframes and amount of waste received, disposed of on the premises and the amount of waste taken off the premises (refer to Condition 51);

(b) a summary of asbestos product monitoring results obtained during time limited operations under condition 33;

(c) a summary of all feral animal, vermin and weed monitoring, inspections and eradication carried out in accordance with condition 15;

(d) a summary of surface water monitoring results obtained during time limited operations under condition 54;

(e) a summary of product quality monitoring obtained during time limited operations under condition 52;

(f) a summary of groundwater monitoring results obtained during time limited operations under condition 56;

(g) an interpretation of groundwater monitoring results including groundwater flow obtained during time limited operations under condition 56;

(h) a summary of the environmental performance of all infrastructure as constructed or installed (as applicable) under condition 10;

(i) a review of performance and compliance against the conditions of the works approval; and

(j) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

60. The works approval holder must record the following information in relation to complaints received by the works approval 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 works approval holder to investigate or respond to any complaint.

61. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

(a) any maintenance of infrastructure that is performed in the course of complying with condition 10;

(b) monitoring programmes undertaken in accordance with conditions 51, 52, 55 and 56; and

(c) complaints received under condition 60.

62. The books specified under condition 61 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 works approval holder for the duration of the works approval; and

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

Definitions

In this works approval, the terms in Table 14 have the meanings defined.

Table 14: Definitions

Term	Definition
ACM	means asbestos-containing material.
annual period	a 12 month period commencing from 1 January until 31 December of the immediately following year.
appropriately authorised facility	means a facility which holds approval under the EP Act for the acceptance of the relevant waste type as defined in the Landfill Definitions.
asbestos	as defined in the Asbestos Guidelines.
asbestos fines or fibres (AF)	as defined in the Asbestos Guidelines.
Asbestos Guidelines	means the *Guidelines for managing asbestos at construction and demolition waste recycling facilities* published on the department's website.
Asbestos Management Plan	means the plan specified in condition 22 of this licence.
AS 4454	means the Australian Standard AS 4454 *Composts, soil conditioners and mulches*
AS 2870-2011	means the Australian Standard *AS 2870-2011 Residential slabs and footings*
AS 3600:2018	means the Australian Standard *AS 3600:2018 Concrete structures*
AS/NZS 5667.1	means the Australian Standard *AS/NZS 5667.11 Water quality - sampling - guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples*
AS/NZS 5667.11	means the Australian Standard *AS/NZS 5667.11 Water quality - sampling - guidance on sampling groundwater*.
ASTM D5092/D5092M-16	means the ASTM international standard for *Standard practice for design and installation of groundwater monitoring wells (Designation: ASTM D5092/D5092M-16)*.
books	has the same meaning given to that term under the EP Act.
Broome Surface	means the document Surface Water Management Plan (Version

Term	Definition
Water Management Plan	2.0; November 2022) prepared by Talis Consultants submitted as part of the works approval application.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
clean fill	as defined in the Landfill Definitions.
construction and demolition waste	as defined in the Landfill Definitions.
critical containment infrastructure	means the items of infrastructure listed in condition 2.
Critical Containment Infrastructure Report	means a report to satisfy the CEO that works of critical containment infrastructure have been constructed in accordance with the works approval.
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act.
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.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
E-waste	means electronic, electrical and battery-powered items that have been discarded or no longer in working order. Covers a range of items used in commercial, industrial and residential premises and includes, but is not limited to, televisions, computers, mobile phones, kitchen appliances and audio/visual equipment.
feedstock	means a material used as an ingredient in the production of recycled organic products at the premises. The term feedstock applies to materials whether they are: (a) a waste or not;

Term	Definition
	(b) solid or liquid; and (c) organic or inorganic.
Feral Animal and Vermin Management Plan	means the document Feral Animal and Vermin Management Plan (Version 3; September 2022) prepared by Terrestrial Ecosystems submitted as part of the works approval application.
fibrous asbestos (FA)	as defined in the Asbestos Guidelines.
Household Hazardous Waste	refers to products used in or around the home that are flammable, toxic, explosive or corrosive and are supported by the Waste Authority's Household Hazardous Waste Program.
Inert Waste Type 1	as defined in the Landfill Definitions.
Inert Waste Type 2	as defined in the Landfill Definitions.
Inert Waste Type 3	as defined in the Landfill Definitions.
Landfill Definitions	*Landfill Waste Classification and Waste Definitions 1996* (as amended from time to time).
Liquid Waste Facility and Surface Water Management System and Technical Specification	means the document Liquid Waste Facility and Surface Water Management System and Technical Specification (Version 3.0; September 2022) prepared by Talis Consultants submitted as part of the works approval application.
mg/kg	means milligrams per kilogram
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
product	refers to either: • construction and demolition waste which has undergone processing, crushing and/or screening to create a fit-for-purpose recycled product which has been tested and conforms to the product specification in this licence; or • mulch produced off-site which is stored at the premises.
product specification	means the specification set out in condition 34
quarantined storage area or container	means a designated storage area or container that is: • clearly labelled; • separated and isolated from other waste storage and processing areas; and • designed to contain all non-conforming waste and

Term	Definition
	prevent and mitigate the release to the environment of emissions that may arise from the waste.
recycled organic product	means a fit-for-purpose product that has been produced from the substantial transformation of organic waste and feedstocks so that it is no longer waste.
residual wastes	means physical contaminants such as timber, glass, plastic, metals, paper and cardboard and any other waste that has been screened or otherwise removed during the processing of construction and demolition waste.
Site Planning and Fire Appliance Specifications	means the document Site Planning and Fire Appliance Specifications (2015) as prepared by the Department of Fire and Emergency Services (DFES) as published on the DFES website.
Special Waste Type 1	as defined in the Landfill Definitions.
suitably qualified civil or geotechnical engineer	means a person who: (a) holds a Bachelor of Civil or Geotechnical Engineering recognised by the Institute of Engineers; and (b) has a minimum of five years of experience working in a supervisory area of geotechnical engineering; and (c) is employed by an independent third party external to the Works Approval Holder's business.
suitably qualified and independent person	means a person who: (a) holds a tertiary qualification in occupational health and safety, industrial hygiene, science, building construction, or environmental health; (b) has a minimum of three years of relevant industry experience such as working on managing asbestos risks in the waste industry or contaminated site assessment; and (c) is employed by an independent third party external to the licence holder's business.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions, being conditions 7 to 59 inclusive.
waste	has the same meaning given to that term under the EP Act.
Weed Management Plan	means the document Weed Management Plan (Version 3.0; August 2022) prepared by Talis Consultants submitted as part of the works approval application.
white goods	means electrical goods such as fridges, freezers, washing

Term	Definition
	machines and dryers that comprise of steel, plastic and electrical/electronic components.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

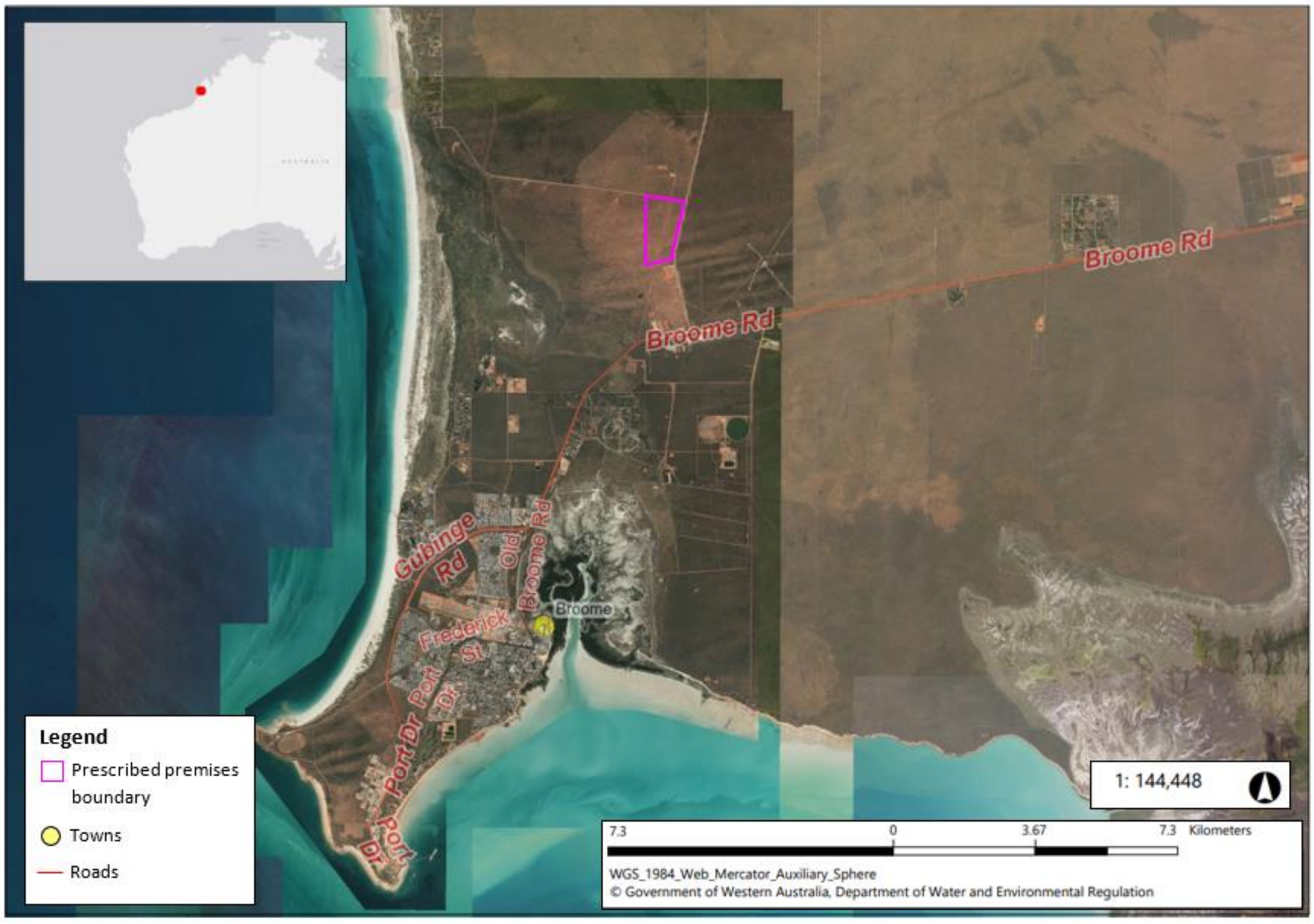

Figure 1: Map of the boundary of the prescribed premises

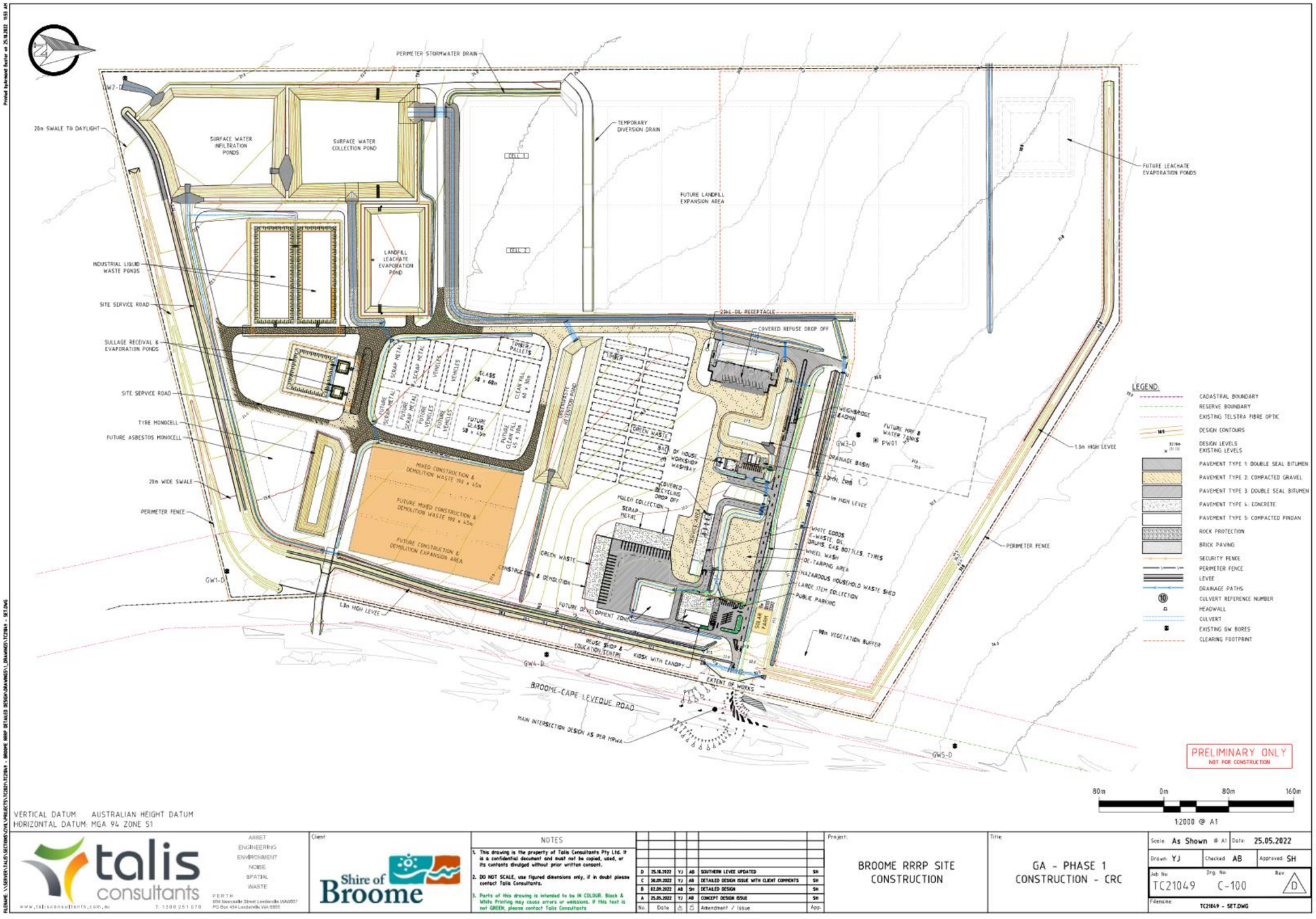

Figure 2: Premises Layout

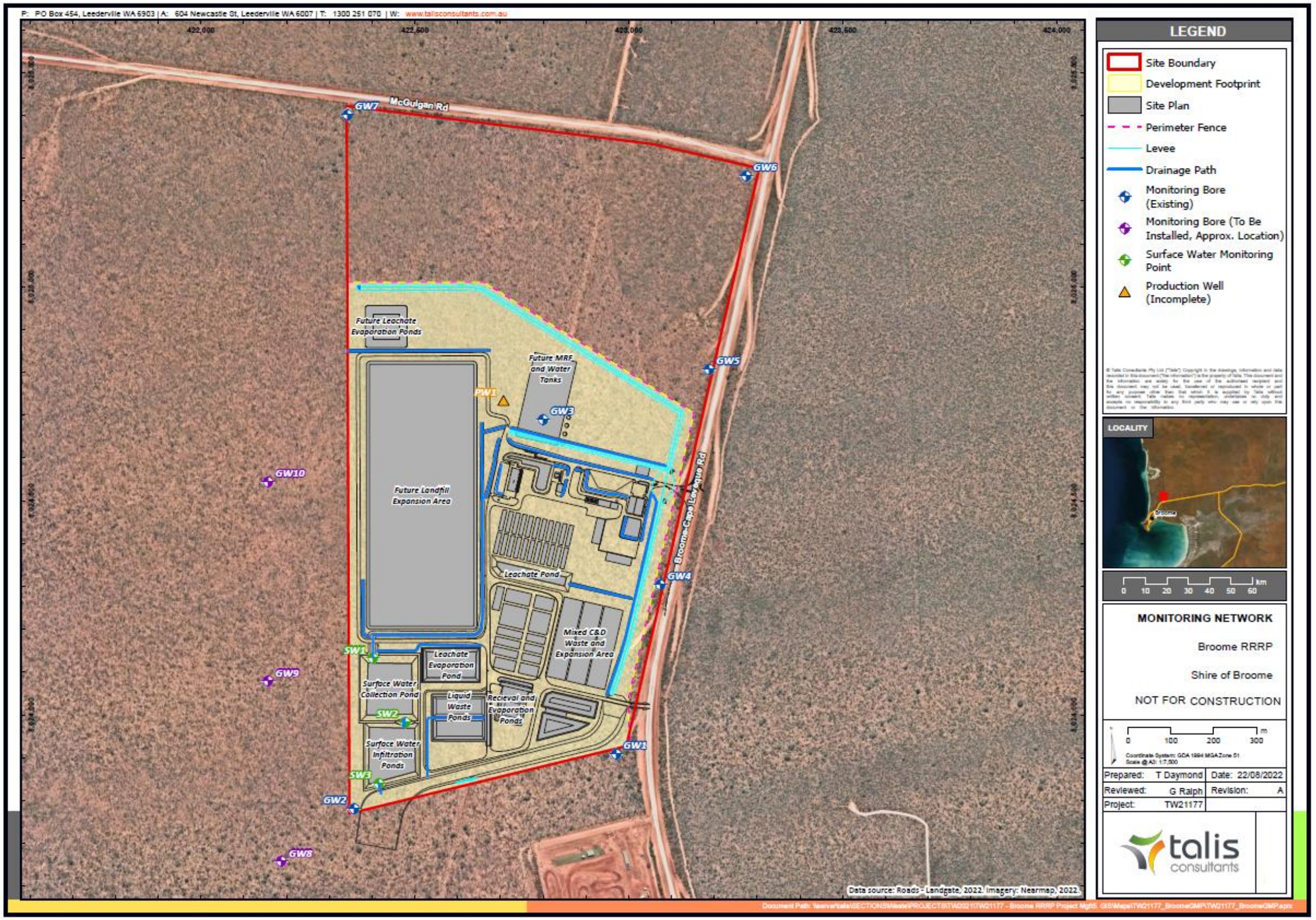

Figure 3: Groundwater monitoring bore locations

Schedule 2: 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 15 below.

Table 15: Risk classification matrix

	TYPE OF LOAD		
MATERIAL TYPE	**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 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 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 Inert Waste Type 1 accepted for Category 13 activities 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

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 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.

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 m^3) 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 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 roadbase. 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.

Schedule 5: Upper contaminant limits

Table 16: Upper contaminant limit for mulch products

Contaminant type	Parameter	Upper limit
Chemical contaminants	Arsenic	20 mg/kg
	Cadmium	1 mg/kg
	Boron	100 mg/kg
	Chromium (total)	100 mg/kg
	Copper	100 mg/kg
	Lead	150 mg/kg
	Mercury	1 mg/kg
	Nickel	60 mg/kg
	Selenium	5 mg/kg
	Zinc	200 mg/kg
	DDT/DDD/DDE	0.5 mg/kg
	Aldrin	0.02 mg/kg
	Dieldrin	0.02 mg/kg
	Chlordane	0.02 mg/kg
	Heptachlor	0.02 mg/kg
	HCB	0.02 mg/kg
	Lindane	0.02 mg/kg
	BHC	0.02 mg/kg
	PCBs	Not detectable (detection limit of 0.2 mg/kg)
Physical contaminants	Glass, metal and rigid plastics (>2 mm)	0.5% dry matter w/w
	Plastics – light, flexible or firm including biodegradable and compostable types (>5 mm)	0.05% dry matter w/w
Biological contaminants	Viable plant propagules	Nil germination after 21 days