



Works approval number	W6335/2020/1
Works approval holder	Cougar Sands
Registered business address	Cougar Sand Supplies 47 Mount John Road Heron, WA 6211
DWER file number	DER2019/000576
Duration	13 May 2020 to 12 May 2025
Date of issue	13/05/2020
Premises details	Cougar Sand Supplies Lot 1001 Lake Clifton Road Lake Clifton Part of Lot 1001 on Deposited Plan 66023 Certificate of Title Volume 2764 Folio 126 As defined by the coordinates and Premises map attached to the issued Works Approval

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed production 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.	25,000 tonnes per annual year period
Category 62: Solid waste depot: Premises on which waste is stored, or sorted, pending final disposal or re-use.	25,000 tonnes per annual year period
Category 63: Class I inert landfill site: Premises on which waste (as determined by reference to the waste type set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer and as amended from time to time) is accepted for burial.	25,000 tonnes per annual year period
Category 70: Screening, etc. of material: Premises on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	25,000 tonnes per annual year period

This works approval is granted to the works approval holder, subject to the attached conditions, on 13 May 2020, by:

Tracey Hassell

INDUSTRY REGULATION

An officer delegated by the CEO under section 20 of the EP Act

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 means the version of the standard, guideline or code of practice in force at the time of granting of this works approval and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the works approval;
- (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.

Works approval conditions

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

Infrastructure and equipment

1. The works approval holder must:
 - (a) Install the infrastructure and equipment;
 - (b) in accordance with the corresponding design and construction requirements as set out in Table 1; and
 - (c) at the corresponding infrastructure location.

Table 1: Design and construction requirements

	Infrastructure	Design and construction requirements	Infrastructure location
1	Site Office	None	Entrance to the Prescribed Premises.
2	Bulldozer	Mobilise to site	N/A
3	Excavator	Mobilise to site.	N/A
4	Loaders	Mobilise to site.	N/A
5	Rock Breaker	Mobilise to site.	N/A
6	Non-conforming waste bins	Mobilise to site.	N/A
7	Mobile Crushing and Screening Plant	Mobilise to site.	N/A
8	Mobile Fuel Tanker	Must only be operated within the Prescribed Premises Boundary.	N/A
9	Semi-trailer trucks, truck and trailer combinations	Must stay to access roads as indicated in the Premises map.	N/A
10	Water Tanker	<p>A truck with a water tank of at least 15,000 litres capacity located on-site, with associated spray bars and hosing.</p> <p>Operated to ensure that unsealed roads and surfaces remain wetted down to prevent fugitive dust emissions.</p>	To be retained on-site with access to water at all times.

	Infrastructure	Design and construction requirements	Infrastructure location
11	Install signage at front entrance to the Premises	Signage at front entrance is to include as a minimum notification that asbestos is not accepted at the site and facility operating hours.	Entrance to the access road off Lake Clifton Road.
12	Install groundwater monitoring wells	As per the design, construction and installation requirements outlined in condition 2.	As per the locations outlined in condition 2.

Groundwater monitoring network

2. The Works Approval Holder must:

- (a) design, construct, and install groundwater monitoring wells in accordance with the requirements specified in Table 2.

Table 2: Infrastructure requirements – groundwater monitoring wells

Infrastructure	Design, construction, and installation requirements	Monitoring well location(s)	Timeframe
Groundwater monitoring well(s) MW1-MW4	<p><u>Well design and construction:</u> Designed and constructed in accordance with <i>ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores</i>. Wells must be constructed with a screened interval from the water table to a depth of 2 metres below the water table and 1 metre above the water table. The groundwater monitoring wells must be installed in a manner that can capture seasonal variations in groundwater levels.</p> <p><u>Logging of borehole:</u> Soil samples must be collected and logged during the installation of the monitoring wells. A record of the geology encountered during drilling must be described and classified in accordance with the Australian Standard Geotechnical Site Investigations AS1726. Any observations of staining / odours or other indications of contamination must be included in the bore log.</p>	As depicted in Schedule 1, Figure 2: Map of groundwater monitoring well locations and labelled as MW1 – MW4	Must be constructed, developed (purged), and determined to be operational by 30 September 2020.

Infrastructure	Design, construction, and installation requirements	Monitoring well location(s)	Timeframe
	<p><u>Well construction log:</u> Well construction details must be documented within a well construction log to demonstrate compliance with <i>ASTM D5092/D5092M-16</i>. The construction logs shall include elevations of the top of casing position to be used as the reference point for water-level measurements, and the elevations of the ground surface protective installations.</p> <p><u>Well development:</u> All installed monitoring wells must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from around the well screen to ensure the hydraulic functioning of the well. A detailed record should be kept of well development activities and included in the well construction log.</p> <p><u>Installation survey:</u> The vertical (top of casing) and horizontal position of each monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor.</p> <p><u>Well network map:</u> A well location map (using aerial image overlay) must be prepared and include the location of all monitoring wells in the monitoring network and their respective identification numbers.</p>		

Note 1: refer to Section 8 of Schedule B2 of the *Assessment of Site Contamination NEPM* for guidance on well screen depth and length.

Reporting

3. The works approval holder must within 30 calendar days of an item 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.
 - (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.
4. The Works Approval Holder must, within 60 calendar days of the monitoring wells being constructed, submit to the CEO a well construction report evidencing compliance with the requirements of condition 2.

Time limited operations phase

Time limited operations phase requirements

5. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 where the Environmental Commissioning Report for that item of infrastructure as required by condition 3 has been submitted by the works approval holder.
6. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 7:
 - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 5 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 and only where this occurs prior to 180 calendar days from the day the works approval holder meets the requirements of condition 5 for that item of infrastructure.

Infrastructure and equipment

7. 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: Design and construction requirements

	Infrastructure	Operational requirements	Infrastructure location
1.	Bulldozer	Must only be located and operated within the Prescribed Premises Boundary.	Variable location as quarrying activity proceeds.
2.	Water Tanker	<p>A truck with a water tank of at least 15,000 litres capacity located on-site, with associated spray bars and hosing.</p> <p>Operated to ensure that unsealed roads, operational surfaces and all Product and Waste stockpiles remain wetted down to prevent fugitive dust emissions/</p> <p>Operated to ensure targeted wetting occurs during tipping and when material handling such as reclaiming of waste from the stockpiles has the potential to generate fugitive dust.</p>	To be retained on-site with access to water at all times.
3.	Excavator	Must only be located and operated within the Prescribed Premises Boundary.	N/A – Mobile Equipment

	Infrastructure	Operational requirements	Infrastructure location
4.	Loaders	Cat 980 or similar capacity excavator. Must only be located and operated within the Prescribed Premises Boundary.	N/A – Mobile Equipment
5.	Rock Breaker	Must be operated within the inert fill footprint as depicted in the Premises map.	Inert fill footprint as depicted in Schedule 1, Figure 2.
6.	Mobile Crushing and Screening Plant	All raw material processing operations are to be undertaken within the inert landfill pit void. The crusher is fitted with dust suppression system with spray nozzles to be located within the hopper and at the discharge points from crusher and screens. Shall only operate between 7:00am and 5:00pm Monday to Saturday, excluding public holidays.	Inert fill footprint as depicted in Schedule 1, Figure 2.
7.	Mobile Fuel Tanker	Must only be located and operated within the Prescribed Premises Boundary.	N/A – Mobile Equipment
8.	Semi-trailer trucks, truck and trailer combinations	Must stay to access roads as indicated in the Premises map.	N/A – Mobile Equipment
9.	Site Office	None	Entrance to the Prescribed Premises.
10.	Signage at front entrance to the Premises	Signage at front entrance is to be maintained and as a minimum notification that asbestos is not accepted at the site and facility operating hours.	Entrance to the access road off Lake Clifton Road.
11.	Non-conforming waste bins	Must provide appropriate storage of non-conforming wastes in designated onsite location.	Inert fill footprint as depicted in Schedule 1, Figure 2.

	Infrastructure	Operational requirements	Infrastructure location
12.	Water sprays/sprinklers on crushing and screening equipment	<p>All fixed equipment water sprays or sprinklers must be operational to mitigate the generation of fugitive dust from the processing and handling of Product and Waste when required; and</p> <p>Water must be effectively delivered to Product and Waste and not be blown away by wind.</p>	N/A
13.	Sprinklers/misters	<p>Operate when visible dust is generated from stockpile surfaces on the Premises.</p> <p>Operate proactively subject to weather forecasting over a 24 hour period.</p> <p>Reticulated sprinklers must be capable of wetting down the entire surface of all stockpiles on the Premises that are subject to dust lift-off simultaneously or within a period of thirty minutes.</p> <p>Spray reach and rate of flow of sprinklers must be sufficient to reach the top of all stockpiles specified above.</p> <p>Spray reach and rate of flow of sprinklers must be maintained in good working order.</p>	Various locations
14.	Inert Landfill area	<p>All landfilling must be undertaken within the inert landfilling area as depicted in Schedule 1, Figure 2.</p> <p>All stockpiles must be placed and maintained within the inert landfill area.</p> <p>A minimum of 3 m separation distance from the highest annual groundwater levels must be maintained at all times.</p>	Inert fill footprint as depicted in Schedule 1, Figure 2.

	Infrastructure	Operational requirements	Infrastructure location
15.	Fire Management	<p>Maintain perimeter fire breaks as required.</p> <p>Water must be available on site at all times and can be used for firefighting purposes as required.</p> <p>Water sprayers, sprinklers and misters should be in good working order and used in the event of a fire at the premise.</p> <p>Bulldozer to be used as required to extinguish small fires.</p> <p>Fire extinguishers to be tested and tagged as required.</p>	Various locations.

Waste acceptance

8. The Works Approval Holder must only accept onto the Premises waste of a waste type, which does not exceed the corresponding rate at which waste is received, and which meets the corresponding acceptance specification set out in Table 4.
9. The Works Approval Holder shall ensure that wastes accepted onto the Premises are only subjected to the processes set out in Column 3 of Table 4.

Table 4: Waste acceptance

Column 1	Column 2	Column 3	Column 4
Waste type	Acceptance specification	Processes	Rate at which waste is received
Inert Waste Type 1	Inert waste type I category waste as defined in the Landfill Waste Classification and Waste Definitions 1996 (as amended 2019).	Sorting, crushing, screening, stockpiling	25,000 tonnes per annual period (combined total)
Class I Solid Waste	Contaminated solid waste meeting acceptance criteria for Class I Landfills as defined in the <i>Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)</i> .	Sorting, crushing, screening, stockpiling	
Clean Fill	Limited to soils, rocks and unprocessed material as defined in the Landfill Waste Classification and Waste Definitions 1996 (as amended 2019).	Sorting, crushing, screening, stockpiling	
Putrescible Waste	Must not be accepted		
Asbestos	Must not be accepted		

10. The Works Approval Holder shall ensure that where waste does not meet the waste acceptance criteria set out in Condition 8 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.
11. The Works Approval Holder must record the total amount of waste accepted onto the Premises, for each waste type listed in Table 5, in the corresponding unit, and for each corresponding time period, as set out in Table 5.

Table 5: Waste volumes accepted onto the premises

Waste type	Unit	Time period
Inert Waste Type 1	m ³ and calculated tonnes: Waste conversion factors are outlined in the Waste Avoidance and Resource Recovery Amendment Regulations 2019, as published in the Western Australian Government Gazette No.97 (28 June 2019).	Each load arriving at the Premises
Clean fill	m ³ and calculated tonnes: Waste conversion factors are outlined in the Waste Avoidance and Resource Recovery Amendment Regulations 2019, as published in the Western Australian Government Gazette No.97 (28 June 2019).	Each load arriving at the Premises

12. The Works Approval Holder must record the total amount of waste removed from the Premises, for each waste type listed in Table 6 in the corresponding unit, and for each corresponding time period set out in Table 6.

Table 6: Waste removed from the premises

Waste type	Unit	Time period
Waste type as defined in the Landfill Definitions	m ³	Each load leaving or rejected from the Premises

Stockpile management

13. The Works Approval Holder must ensure that:
- Material on the Premises is maintained in at least three separate stockpile areas for unprocessed Waste, Products tested for Asbestos or ACM and Products awaiting testing for Asbestos or ACM;
 - Unprocessed Waste and Product stockpiles are kept clearly separated at a minimum three metre distance from the base of the stockpile;
 - Stockpiles must be no more than 4 m high and contain a volume of less than 4,000 tonnes;
 - Products tested for Asbestos or ACM and Products awaiting testing for Asbestos or ACM are:
 - Clearly separated by a minimum 3 m distance from the base of the stockpile;
 - Clearly separated by permanent impermeable concrete barriers;
 - Clearly visible and legible signage is erected on individual stockpiles to clearly identify and delineate tested Products, untested Products and unprocessed Waste.

Dust management

14. Dust management infrastructure should be installed as per the equipment outlined within Table 3, Condition 7.
15. All waste stockpiles and product stockpiles shall be retained within the inert fill boundary.
16. The Works Approval Holder must ensure that no visible dust generated from the primary activities crosses the boundary of the Premises.

Windblown waste

17. 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 returned to the non-conforming waste bins or otherwise appropriately contained.

Product testing

18. The Works Approval Holder must ensure that testing of all Products is undertaken in accordance with the Product testing procedures specified in Attachment 3.
19. The Works Approval Holder must ensure that Products are only supplied to customers that have been tested in accordance with Condition 18 and shown to conform to the product specification of 0.001% Asbestos weight for weight (w/w) for Asbestos content (in any form) within any recycled Products.
20. The Works Approval Holder must maintain accurate and auditable records of all Asbestos Product testing undertaken in accordance with Condition 18. These records must include:
 - (a) details of the sample size;
 - (b) a statement of Limit of Detection of the analysis;
 - (c) results in relation to Asbestos detected (positive result exceeding the 0.001% w/w limit) or not;
 - (d) a description of any Asbestos detected; and
 - (e) an estimate of the concentration of Asbestos detected if practical to do so.
21. The records maintained in accordance with Condition 18 must be kept for at least two years and must be made available to DWER and customers on request.
22. The Works Approval Holder is not authorised to implement a reduced Product testing rate as per the reduced sampling criteria section of Attachment 3.

Land filling

23. The Works Approval Holder must ensure that:
 - (a) Within 120 days of the commencement date of time limited operations, and prior to land filling commencing, site specific groundwater levels must be investigated and recorded in order to determine the final landfilling floor levels in accordance with Condition 23(b).
 - (b) A minimum of 3 m separation distance from the landfill floor to the highest annual groundwater levels must be maintained at all times.

Environmental monitoring

Noise validation

- 24.** Within 120 days of the commencement date of time limited operations, the Works Approval Holder must retain the services of a person qualified and experienced in the area of environmental noise assessment and who, by their qualifications and experience, is eligible to hold membership of the Australian Acoustical Society or the Australian Association of Acoustical Consultants to:
- (a) investigate the nature and extent of noise emissions from the Premises;
 - (b) assess in accordance with the methodology required in the *Environmental Protection (Noise) Regulations 1997*, the compliance of the noise emissions from the primary activities, against the relevant assigned levels specified in those Regulations; and
 - (c) compile and submit to the Works Approval Holder within six (6) months of the commencement date of this works approval a report in accordance with Condition 24.
- 25.** A report prepared pursuant to Condition 24(c) is to include:
- (a) a description of the methods used for monitoring and/or modelling of noise emissions from the Premises;
 - (b) details and the results of the investigation undertaken pursuant to Condition 24(a);
 - (c) details and results of the assessment of the noise emissions from the Premises, against the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997* undertaken pursuant to Condition 24(b); and
 - (d) an assessment of noise levels against the most recent previous noise assessment (if available).
- 26.** The Works Approval Holder must submit to the CEO the report prepared pursuant to Condition 24(c) within 14 days of receiving it.
- 27.** Where an assessment pursuant to Condition 24(b) indicates that noise emissions do not comply with the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997*, the license holder must:
- (a) within 60 days of receiving an assessment report pursuant to Condition 24(c) prepare a plan to ensure the undertaking of the licensed activity will no longer lead to any contravention of the Environmental Protection (Noise) Regulations 1997; and
 - (b) provide to the CEO a copy of the plan prepared pursuant to Condition 24(a) within 30 days of its preparation.

Groundwater monitoring

- 28.** The Works Approval Holder must monitor groundwater for concentrations of the identified parameter(s) in accordance with Table 7.

Table 7: Groundwater monitoring of ambient concentrations

Monitoring well location	Parameter	Unit	Frequency	Sampling Method	Analysis Method
MW1-MW4	Standing water level ¹	m(AHD) and m(BGL)	six-monthly	Spot sample, in accordance with AS/NZS 5667.11.	Analysis by Laboratory with Current NATA accreditation
MW1-MW4	pH ¹	N/A			
MW1-MW4	Electrical Conductivity ¹	µS/cm			
MW1-MW4	Ammonium - nitrogen cadmium chloride chromium (total) copper, iron lead mercury manganese nickel nitrate nitrite total potassium total nitrogen phosphorus zinc total dissolved solids Total Petroleum Hydrocarbons (TPH)	mg/L			

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

29. The Works Approval Holder must adhere to the following field quality assurance and quality control procedures, as specified in Schedule B2 of the Assessment of Site Contamination NEPM, and must include as a minimum:

- (a) decontamination procedures for the cleaning of tools and sampling equipment before sampling and between samples;
- (b) field instrument calibration for instruments used on site;

- (c) blind replicate samples and rinsate blanks must be collected in the field and sent to the primary laboratory to determine the precision of the field sampling and laboratory analytical program;
- (d) completed field monitoring sheets / sampling logs for each sample collected, showing:
 - (i) time of collection;
 - (ii) location of collection;
 - (iii) initials of sampler;
 - (iv) sampling method;
 - (v) field analysis results;
 - (vi) duplicate type / location (if relevant); and
 - (vii) site observations and weather conditions, and
- (e) chain-of-custody documentation must be completed which details the following information:
 - (i) site identification;
 - (ii) the sampler;
 - (iii) nature of the sample;
 - (iv) collection time and date;
 - (v) analyses to be performed;
 - (vi) sample preservation method;
 - (vii) departure time from site;
 - (viii) dispatch courier(s); and
 - (ix) arrival time at the laboratory.

Fire management

- 30.** The license holder must:
- (a) ensure that an unauthorised fire on the Premises is extinguished as soon as possible.
 - (b) ensure that fire-fighting equipment as outlined in Table 3 are in good working order and capable of controlling a fire in a recycling and landfill Premise of this size.

Closure

- 31.** The Works Approval Holder must, within 60 calendar days of closure, submit to the CEO a closure report evidencing compliance with the requirements of the Applicant's Closure and Rehabilitation Plan.
- (a) ensure that all buildings, machinery, stockpiles and other such features are removed from site.
 - (b) ensure all batter slopes are to be no greater than 1:6 gradient (vertical to horizontal).
 - (c) ensure land surface is to be covered by 1 m of natural overburden and soil or screened sand.

- (d) Ensure a self-sustaining cover of native vegetation and parkland pasture is established with minimal phosphorous fertiliser.

Records

- 32. The Works Approval Holder must maintain accurate and auditable books including the following records, information, reports and data required by this Works Approval:
 - (a) the calculation of fees payable in respect of this Works Approval;
 - (b) the maintenance of infrastructure required to ensure that it is kept in good working order in accordance with Condition 7 of this works approval;
 - (c) monitoring undertaken in accordance with Conditions 11 and 12 of this works approval;
 - (d) complaints received under Condition 33 of this works approval; andIn addition, the Books must:
 - (e) be legible;
 - (f) if amended, be amended in such a way that the original and subsequent amendments remain legible and are capable of retrieval;
 - (g) be retained for at least 3 years from the date the Books were made; and
 - (h) be available to be produced to an Inspector or the CEO.
- 33. 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.

Reporting

- 34. 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.
- 35. The works approval holder must ensure the report required by condition 34 includes the following:
 - (a) an audit of their compliance with the conditions of this works approval during the time limited operations;
 - (b) monitoring of inputs and outputs in accordance with conditions 11 and 12;
 - (c) a summary of product asbestos sampling in accordance with condition 18;
 - (d) copies of laboratory reports for product asbestos sampling in accordance with condition 18.
 - (e) a summary of groundwater monitoring results recorded in accordance with conditions 28 and 29; and

- (f) copies of laboratory reports for groundwater monitoring results recorded in accordance with conditions 28 and 29.
- 36.** The Works Approval Holder must comply with a Department Request, within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.

Definitions

In this works approval, the terms in Table 8 have the meanings defined.

Table 8: Definitions

Term	Definition
annual period	a 12 month period commencing from 13 May until 12 May of the immediately following year.
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
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 commissioning	means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications.
Environmental Commissioning Report	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.
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	<i>Environmental Protection Act 1986 (WA)</i> .
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i> .
premises	the premises to which this works approval applies, as specified at the front of this works approval and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.

Term	Definition
prescribed premises	has the same meaning given to that term under the EP Act.
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.
waste	has the same meaning given to that term under the EP Act.
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

Location map

The boundary of Lot 1001 and the prescribed premises is shown in the map below (Figure 1).



Figure 1: Map of the boundary of the prescribed premises

Premises map

The boundary of the prescribed premises and landfill area is shown in the map below (Figure 2).



Figure 2: Site Plan

Schedule 2: Premises boundary

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

Table 9: Premises boundary coordinates

Easting	Northing
380213.0 E	6367416.0 N
379681.2 E	6366681.8 N
380379.4 E	6366690.8 N
379635.1 E	6367327.9 N

Attachment 1 – Asbestos risk classification procedure

To determine the risk of an incoming load containing Asbestos, the site manager 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 below.

Risk Classification Matrix			
Material Type	Type of load		
	Commercial	Public, utes, cars and trailers*	Skip bins
Clean Concrete (without formwork)	Low	High	High
Clean Brick	Low	High	High
Clean Bitumen / Asphalt	Low	High	High
Mixed Construction waste	High	High	High
Mixed Demolition waste	High	High	High

* if it is possible to view the entire load of incoming C & D material (eg a small trailer with a shallow load, then consideration may be given to classifying these loads as low risk

(Risk Matrix Classification adapted from WorkSafe Victoria 2006 and WMAA 2009)

(Derived from Section 3.3 of the DER Asbestos Guidelines, pages 10 – 11).

Attachment 2 – High risk load procedure

- Each accepted load shall be directed to an unloading area, ensuring the waste will not mix with other waste. Where feasible, separate unloading areas shall be provided for low risk and high-risk wastes.
- High Risk Loads must be unloaded and spread over a sufficiently large area to enable a comprehensive visual inspection of all sides of the material to be undertaken.
- If Asbestos is suspected or detected, the load must be isolated, kept wet and once appropriately contained in accordance with the Environmental Protection (Controlled Waste) Regulations 2004, and redirected to an appropriately authorised disposal facility.
- Where suspect ACM is identified within a load and is not capable of being easily removed by hand, the load must be rejected and must be isolated, kept wet and once appropriately contained in accordance with the Asbestos Factsheet in Attachment 4, 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:
 - i. 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 added to the stockpile awaiting further processing; or
 - ii. Assumed to be ACM and redirected to an appropriately authorised disposal facility.
- All suspected or assumed ACM must be segregated. Material must be clearly labelled, kept secure and sufficiently contained to prevent the release of Asbestos including wind-blown fibres.
- Once all suspected or assumed ACM has been removed from a load in line with the above procedure, the residual Waste can be added to the stockpile waiting further processing.
- Records must be kept to ensure that the process from receipt of C&D material to the completion of the unloading procedure is auditable and that any loads found to contain suspect Asbestos will be traced back to the customer and originating site.

(Derived from Section 4.3 of the DER Asbestos Guidelines, page 12)

Attachment 3 – Asbestos monitoring and testing

Product testing and supply

The testing procedures detailed in this attachment have application to the three main recycled Products:

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

Stockpile inspection and sampling

- No sampling is required for recycled drainage rock, other than to determine by laboratory analysis whether a suspect fragment is Asbestos.
- For recycled road-base and screened sand, sampling is necessary and must be spread evenly over the whole stockpile surface or samples may be taken at regular intervals (as per conveyor sampling) during construction of the stockpile. Suspect ACM or areas must be targeted for sampling.
- Sampling of road base and screened sand Products must occur at a minimum rate of 40 locations per 4000 tonnes or 14 samples per 1000 m³ of Product.

Conveyor sampling

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

Reduced sampling criteria

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

Sample treatment

- Each sample collected must be at least 10 litres in volume and then be divided into two 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

- **>7mm sample fractions –**
 - Asbestos concentrations (ACM and Asbestos) 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.

- **<7mm sample fractions**

- Each <7 mm sample fraction must be analysed for Asbestos and ACM.
- 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* (AS4964-2004) or be demonstrated to be able to achieve the equivalent level of results to this Australian Standard.

AS4964-2004 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 (DS) 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 DER 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 DER:
 - 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 (PCM) 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 possible above the 0.001%w/w criteria, then that stockpile or product process should be deemed potentially contaminated and considered for off-site disposal as Asbestos Waste, 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 criteria, 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.

(Derived from Section 4.3 of the DER Asbestos Guidelines, pages 15 - 20)

Attachment 4 – Asbestos factsheet

TRANSPORTATION AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL

The transportation and disposal of asbestos-containing material from commercial, industrial and other activities is regulated by the Environmental Protection (Controlled Waste) Regulations 2004 (Regulations). The Regulations apply obligations on the waste transporter to ensure the waste is safely transported to an approved location.

The Regulations define what is considered to be asbestos containing material for the purposes of the Regulations. This definition includes material which contains 0.001% or more of asbestos fibres weight/weight.

Please note that removal, handling, signage, security and onsite packaging of asbestos contaminated material must be carried out in accordance with the Local Government Authority, Department of Health and WorkSafe requirements. Contact the relevant authority for further information (refer to the end of this factsheet).

TRANSPORTATION OF ASBESTOS-CONTAINING MATERIAL (ACM)

The Regulations require asbestos containing material to be:

1. Separated from other material for disposal where that is reasonably practicable;
2. Wrapped and contained in a manner that prevents asbestos fibres entering the atmosphere during transportation on a road; and
3. Labelled or marked with the words "CAUTION ASBESTOS" in letters no less than 50 millimetres high on the individual packages and the transport container.

Further guidance on the transportation of asbestos containing materials is set out in the Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC:2002(2005)] and the *Health (Asbestos) Regulations (1992 or as amended)*. This Code of Practice recommends that:

- ACM is sealed in heavy duty 200 µm (minimum thickness) polythene plastic and clearly labelled with the appropriate signage warning.
- All drums or bins used to store and dispose of ACM should be in good condition, with lids and rims in good working order. The drums or bins should be lined with polythene plastic (200 µm minimum thickness) and be clearly labelled.
- If a waste skip bin, vehicle tray or similar container is used, the ACM should be double bagged before being placed in to the container or sealed in double-lined, polythene plastic (200 µm minimum thickness), and be clearly labelled. In the case of bulk loads such as contaminated soil an alternative is to double line the vehicle tray with the polythene and completely cover the load with a close fitting durable material such as the double layered polythene or a tarpaulin.

- In the case of ACM in the form of contaminated soil, it needs to be wetted down prior to removal and loading onto vehicle or bin.

DISPOSAL OF MATERIAL CONTAINING ASBESTOS

All material containing asbestos must be disposed at a disposal site appropriately licensed or registered under *Part V* of the *Environmental Protection Act 1986* to accept asbestos waste.

A person who disposes of material containing asbestos other than at a licensed disposal site commits an offence.

Receipts for the disposal of ACM should be retained or passed on to the disposal client to assist any subsequent regulatory investigation.

DUTY TO NOTIFY OTHERS OF THE PRESENCE OF ASBESTOS

A person who takes material containing asbestos to a disposal site **MUST** inform the operator of the facility that the material is, or contains asbestos waste. This notification should be provided in a written form however where notification is verbally provided the disposal site should make a written record of the notification.

PENALTIES FOR NON-COMPLIANCE

Penalties apply for offences committed under the *Environmental Protection Act 1986* and the *Environmental Protection (Controlled Waste) Regulations 2004*.

DISPOSAL SITES FOR MATERIAL CONTAINING ASBESTOS

For a map of landfills within the Metropolitan area visit the WA Waste Authority website at: www.zerowastewa.com.au/disposal/community/perthlandfills

Please contact the Local Government Authority or the facility on the number provided for more information before visiting the disposal site. In Regional areas contact the Local Government Authority for disposal site locations. Please note this list is subject to change and is only intended as a guide.

COUNCIL OR COMPANY	ADDRESS	SUBURB	POST CODE	PHONE NUMBER	LANDFILL CLASS
Buller Road Refuse Disposal Site	Lot 1701 Buller Rd	Waroona	6215	9733 1277	II
City of Armadale	Hopkinson Rd	Forrestdale	6112	9399 3935	II
City of Canning	Ranford Rd	Canning Vale	6155	9321 0606	II & III
City of Cockburn	Rockingham Rd	Henderson	6166	9411 3444	II
City of Rockingham	Millar Rd	Baldivis	6171	9524 2053	III
City of Stirling	238 Balcatta Rd	Balcatta	6021	9345 8555	Transfer station
Eastern Metro Regional Council	Toodyay Rd (Red Hill)	Gidgegannup	6083	9574 6235	III & IV
Eclipse Resources	Lot 180 Abercrombie Rd	Postans	6167	9381 5600	I
Mindarie Regional Council	1700 Marmion Ave	Mindarie	6030	9306 6300	II
RCG Pty Ltd	Lot 70/717 Hester Ave	Neerabup	6031	9407 5069	I
Shire of Gingin	Lot 10 Cockram Rd	Gingin	6503	9575 2211	II
South Perth Waste Transfer Station	Cnr Hayman Rd Thelma St	Como	6152	9367 2492	Transfer station
Wastestream Management	Ratcliffe Rd	Kwinana	6167	9439 1300	I
West Australian Landfill Services	Lot 200 and Lot 201 Shale Rd	South Cardup	6201	9525 5355	II
Western Metropolitan Regional Council	Cnr Lemnos & Brockway Rd	Shenton	6008	9384 2544	Transfer station

FURTHER INFORMATION AND CONTACTS

Local Government Authority

For information on demolition licence requirements and household queries contact an Environmental Health Officer at your Local Government Authority.

Department of Health

For information on asbestos cement products in your home, asbestos contaminated sites and frequently asked questions on asbestos, visit the Department of Health website at: www.public.health.wa.gov.au/2/867/2/asbestos.pm or Tel: 9388 4999.

Department of Consumer and Employment Protection – Worksafe

For information about asbestos in the workplace, licensed asbestos removalists and appropriate handling of asbestos including safety wear, visit the Worksafe website at:

www.commerce.wa.gov.au/WorkSafe/Content/Safety_Topics/Asbestos/ or Tel: 1300 307 877.