



Application for Works Approval

Division 3, Part V *Environmental Protection Act 1986*

Works Approval Number	W6328/2019/1
Applicant	Cowara Contractors Pty Ltd
ACN	115 007 228
File Number	DER2018-00042-1-1
Premises	Cowara Contractors Lot 1062 Ablett Road, Cowaramup
Date of Report	25 June 2020

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A/MANAGER, WASTE INDUSTRIES

Officer delegated under section 20 of the Environmental Protection Act 1986

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1. Definitions

In this Decision Report, the terms in the Table below have the meanings defined.

Term	Definition
ACN	Australian Company Number
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
Decision Report	refers to this document.
Delegated Officer	an officer under section 20 of the EP Act.
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.
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of the <i>Environmental Protection Act 1986</i> along with other legislation.
Emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (WA)</i>
Occupier	has the same meaning given to that term under the EP Act.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report
Risk Event	As described in <i>Guidance Statement: Risk Assessment</i>
Works Approval Holder	Cowara Contractors Pty Ltd

2. Overview of premises

Cowara Contractors (the Applicant) currently operate an earthmoving business from Lot 1062 Ablett Road, Cowaramup. The Applicant receives loads of landscaping materials and construction waste from local businesses. The Applicant also receives ironstone and granite rocks from farms and earthworks collected from their earthmoving operations. These materials are crushed onsite into products such as road base, which are stockpiled and sold to the public and local businesses.

The Applicant has previously quarried gravel onsite and retains an Extractive Industries Licence from the Shire of Augusta-Margaret River (the Shire) for quarrying gravel. Quarrying does not currently take place on site and the Applicant does not intend to quarry onsite in the future. The Applicant has planning approval to operate an earthmoving business onsite from the Shire.

The Applicant applied for a category 67A compost facility Works Approval in February 2019. Following review of the scope of the application, the Applicant was advised by DWER in April 2019 that the activities currently being undertaken on site meet the description of prescribed activities, being category 13 (crushing of building material) and category 62 (solid waste depot). Subsequently the Applicant has separately applied for a licence for category 13 and 62 activities. This Decision Report relates to the proposed works to undertake category 67A activities only as outlined in Table 1 below.

Table 1: Classification of Premises

Classification of Premises	Description	Approved Premises design capacity
Category 67A	Compost manufacturing and soil blending: premises on which organic material (excluding silage) or waste is stored pending processing, mixing, drying or composting to produce commercial quantities of compost or blended soils.	15,000 tonnes per annual period.

2.1 Description of proposed activity

The Applicant proposes to construct and operate a new outdoor windrow composting facility to expand their existing earthmoving business. Several proposed infrastructure controls have been proposed by the Applicant. These are listed in Table 2 below. Refer to Figure 1 for location.

Table 2: List of Proposed Infrastructure

Ref	Infrastructure	Site Layout Plan Reference
1	Hardstand Composting Area 175 m wide by 220 m long of compacted clay with a permeability of less than 1×10^{-9} m/s with a 200mm protective layer of gravel and a 2% gradient towards a leachate pond. Bunding around entire hardstand to 200mm and sealed to the hardstand.	Depicted in Figure 1 in Schedule 1 of the attached works approval

Ref	Infrastructure	Site Layout Plan Reference
2	Leachate Pond capable of containing a minimum of 8,000 kL of liquid while maintaining a 0.5 metre freeboard. Constructed of compacted clay with a minimum permeability of less than 1×10^{-9} m/s	Leachate Pond as depicted in Appendix 2: Leachate Pond Drawing 1 Appendix 3: Leachate Pond Drawing 2
3	Earthmoving equipment including front end loaders and forklifts	N/A – mobile equipment
4	3 x groundwater monitoring bores targeting the part of the aquifer most likely to be affected by contamination.	TBD

The Applicant has proposed that containment infrastructure relating to the control of leachate be certified by an engineer and reports provided to DWER as part of their works approval compliance documentation.

The Applicant has proposed that local clay is used to create the hardstand. DWER requested more information regarding the permeability of this clay under assessment. The Applicant provided a permeability test (Appendix 4).

The Applicant has provided drawings of the leachate pond (Appendix 2: . The pond will be constructed of local clay. The pond has a silt trap and spillway to ensure that if it does overflow it will not damage the pond. The overflow would be directed to the adjacent paddock which is also owned by the Applicant.

The Table below lists the types of wastes proposed to be accepted, their throughput, and the combined total throughput. A compost recipe has been provided by the Applicant as supporting information and was requested to remain as Commercial in Confidence. While not described in detail in this report, the recipe has been considered by DWER in decision making and risk assessment for the proposed works.

Table 3: Proposed Waste/Feedstock Acceptance

Waste Type	Throughput (tonnes per annual period)	Combined Total (tonnes per annual period)
Partially Treated Sludge/Winery sludge and aged manure	500	5,500
Grape Marc	5,000	
Greenwaste	5,000	9,750
Animal Manures	250	
Processed Fibrous Organics – including paper, cardboard, paper- processing sludge and non-synthetic textiles.	500	
Municipal kerbside garden waste	3,000	

Waste Type	Throughput (tonnes per annual period)	Combined Total (tonnes per annual period)
Untreated Timber	500	
Natural Fibrous Organics – including peat, seed hulls, husks, straw and bagasse	500	
Total		15,250

2.2 Proposed composting activities

The composting facility will operate between the hours of 6am to 5pm Mondays to Saturdays, with the potential for deliveries outside of these hours. The Process description below is based on information provided by the Applicant only. Additional regulatory conditions will be determined in Section 7 of this report

2.2.1 Feedstock Receival

All feedstocks will be stockpiled adjacent to the primary receival and inspection bays. This will be in the area to the west of the blending bays as shown in the site plan (Figure 1). The high carbon materials such as greenwaste and woodchips will be periodically processed from stockpiled tree waste by third party contactors on site. Other high carbon feedstocks will include cereal straw, meadow hay and sawdust.

The main high nitrogen feedstock will be grape pomace and grape marc. This seasonal material will be received into the blending bays and immediately blended with greenwaste to avoid any putrefaction. Other high nitrogen feedstocks will include poultry and dairy/feedlot manure and grass/lawn clippings. The manure would also be periodically available and will be processed in a similar way to the grape marc to avoid any putrefaction.

Prior to windrow formation, materials that are considered as having the potential to be more odourous than others (such as animal manure) will be blended immediately to avoid leaching. Windrows will be constructed initially by front end loader, excavator and multi-spreader. A windrow turner will be used to form rows and achieve a moisture content of approximately 50-60%.

The batch frequency of compost production will be dependent upon the receival of the high nitrogen or any putrescible feedstocks. Monitoring of the pasteurization and maturation phases of the compost process will be managed by the measurement of temperature, moisture and Carbon Dioxide production.

2.2.2 Windrow Construction

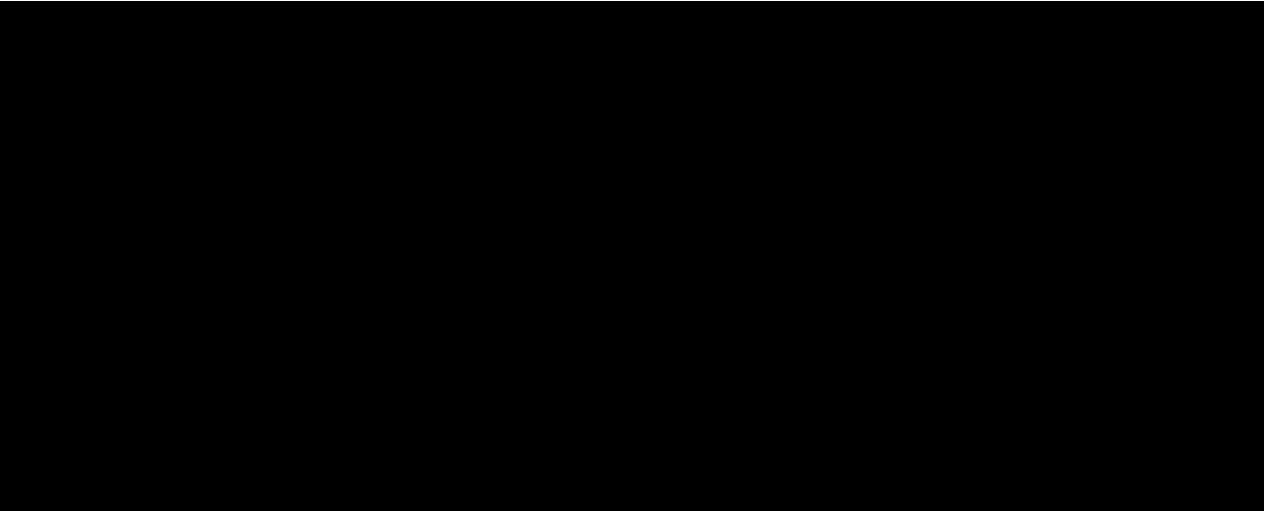
The Applicant proposes to compost in windrows that run north-south across the south and east side of the hardstand area. To see proposed controls relating to windrow dimensions and spacing refer to section 6.5

2.2.3 Compost Process

The first phase of pasteurisation (moderate temperature phase) will last less than a week. Daily turning and watering to maintain moisture content will occur during this time.

The second phase of pasteurisation (high temperature phase) will last two to three months. Turning will reduce from 2-3 turns per week to 1 turn per week until the cooling phase is

reached. The maturation phase will be up to 12 months as windrows cool the maturing material. This will then go through a screening process and be stockpiled for extended maturation. A combination of laboratory and onsite tests will be used to monitor maturation to determine if the compost product complies with AS4454-2012.



The Applicant has advised that the compost to be produced will be a high-end premium product designed for the horticultural and viticultural markets. The product will seek organic certification and will be managed to provide a range of end products that will cater for various end users.

Both onsite and laboratory tests are proposed to comply with AS4454-2012. Solvita maturity tests will be carried out on site and comprehensive assays will be carried out by the following laboratories to ensure quality: SWEP labs; EAL - Southern Cross University; Soil Foodweb Institute (SFI) and Microbial Labs Aust. (MLA). These tests will include pathogen levels, metals and metalloids, and pesticide residues. See section 6.6 for proposed test details.

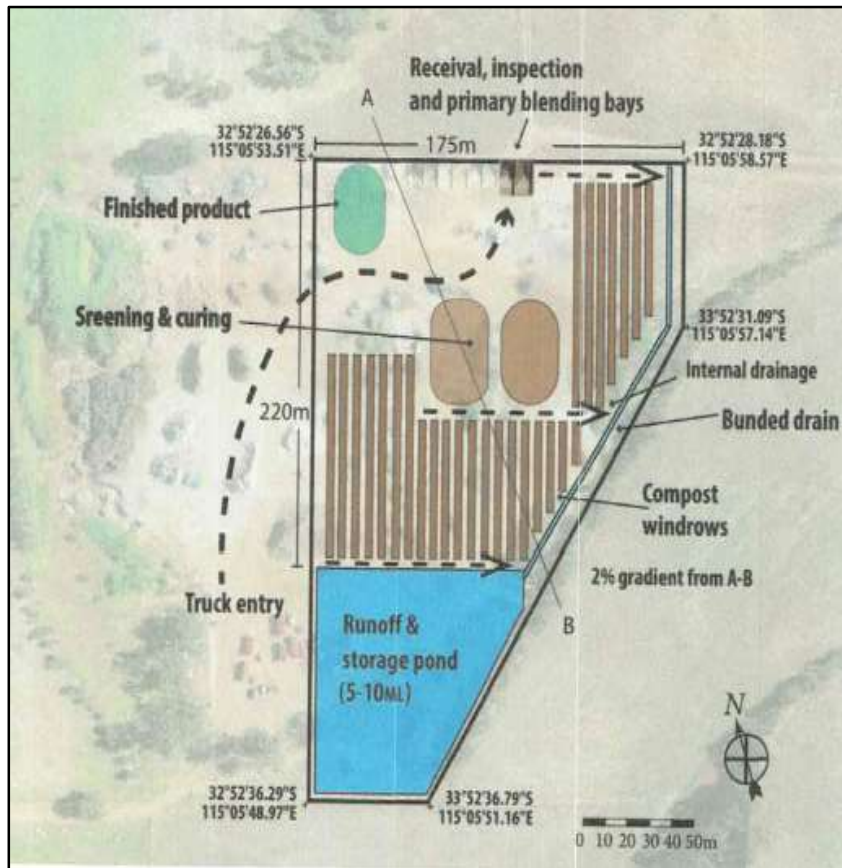


Figure 1: Proposed Site Layout Plan ¹

¹ The Storage pond capacity has been confirmed as 8 ML

3. Emission Sources, Pathways, and Receptors

3.1 Emissions

Potential for emissions to impact on sensitive receptors has been assessed in accordance with the Department's Risk Framework. The key emissions considered in this report are dust and noise from activities including equipment placement and use and vehicle movements during construction.

Following completion and assessment of compliance with this works approval, a prescribed premises category 67A licence under Part V of the EP Act will be required to authorise emissions associated with the operation of the premises. A risk assessment for the operational phase has been included in this Decision Report, however licence conditions will not be finalised until DWER assesses the licence application.

The key emissions considered during premises operation are dust, noise, seepage and run-off of contaminated stormwater, leachate generation, and odour from activities including vehicle movements, storage and handling of waste, processing of compost, and removal of waste from site.

The Applicant has proposed measures to assist in controlling these emissions, where necessary. The proposed controls have been considered when undertaking the risk assessment in section 7.

3.2 Pathways

Risk events will be identified where an identified actual or likely pathway is identified in line with the DWER risk assessment guidance statement (DWER 2017b). This section will identify pathways associated with construction and operation of the premises. Where pathways are actual or likely, they will be included in the risk assessment of this report.

3.2.1 Construction

As dust and noise are considered potential emissions, the prevailing wind direction has been considered as a potential pathway for these emissions. Using information available on the Bureau of Meteorology's website, the closest available weather station for climate data is Witchcliffe (No. 009746).

Based on the climate data for Witchcliffe station (December 1999 to November 2019), the prevailing wind direction in summer months is south easterlies in the morning and southerly in the afternoon. In winter months it is predominately northerlies in the morning and north-westerly in the afternoon. This suggests there may be an emission pathway to the south and south-easterly direction in winter months. In summer months there may be an emission pathway to the receptors north and north-west.

3.2.2 Operation

Dust, noise and odour pathway considerations are detailed in the above section 3.2.1.

As contaminated stormwater and leachate are considered potential emissions to surface waters and groundwater, the hydrology and underlying geology have been considered as potential pathways.

The proposed premises is located at the top of a small sub-catchment of the Margaret River catchment. The topography of the area indicates that surface water in the immediate vicinity of the proposed activities flows in a south westerly direction before ultimately draining to the south into Margaret River.

There are three minor, non-perennial watercourses located within 1.1 kms of the premises.

One is located to the north of the premises and given that surface water flows in a south westerly direction it has not been considered a pathway for stormwater contamination. The closest minor, non-perennial watercourse is located approximately 370 m south west of the premises and the third watercourse is approximately 700 m south east. Both of these watercourses drain in a southerly direction towards Margaret River. Only the watercourse located south west of the premises is down gradient of the premises. For contaminated stormwater from the premises to enter this watercourse, and ultimately into Margaret River, it would have to travel 370 m over clearer land, and then travel a further 7.5 km south via the stream into Margaret River.

Groundwater data has not been provided by the applicant. Information supplied by DWER regional hydrologists indicate that any groundwater is likely to exist in the surficial sediments (near surface) or fractured rock aquifers.

Given the topography of the area is generally sloping to the south west, it is considered that groundwater is likely to follow topography flowing south west in the immediate area and move southerly on a regional scale.

The dominant soil type is Cowaramup ironstone – consisting of flats and gentle slopes (0-5% gradient) with some laterite outcrops and shallow gravelly sands over laterite. This indicates there is a potential pathway for leachates to seep through the soil and to migrate to groundwater.

The inferred surface water and groundwater flow direction indicates that there is unlikely to be a pathway for leachates to migrate to the north or west of the premises either via surface water or groundwater. There is likely to be a pathway for contaminated stormwater to migrate via surface water and for leachate to migrate via surface water or groundwater to the south and south-east.

3.3 Receptors

Risk is assessed as a combination of emission sources, the proximity and sensitivity of receptors to those emission sources and any pathways that can allow the emission to reach and potentially harm the receptor. Figure 2and

Table **5Error! Reference source not found.** provides a summary of human and environmental receptors in proximity to the premises and section 7 considers the relevant receptors in the context of emissions and potential pathways.

Table 5: List of Receptors

Receptor	Distance from Boundary
Human receptors	
Nearest Residential receptor bearing west	Approximately 850 m
Nearest Residential receptor bearing north	Approximately 1800 m
Nearest Residential receptor bearing east	Approximately 800 m
Nearest Residential receptor bearing south	Approximately 750 m
Winery (business and tourist location) bearing south-west	Approximately 1600 m
Environmental Receptors	
Busselton-Capel Proclaimed Groundwater Area – <i>Rights in Water and Irrigation Act 1914</i> (64.5% of water within this area is used for irrigated pasture and 23.5% is for general agriculture. The surficial and Leederville aquifers are connected to surface water in this subarea which is protected for current and future users.	within premises boundary
Native Vegetation bearing south-east –Mattiske vegetation complex is C2 described as an open forest of <i>Eucalyptus marginata</i> , <i>Corymbia calophylla</i> and <i>Banksia grandis</i> .	Approximately 250 m
Cape to Cape Proclaimed Surface water area bearing north – <i>Rights in Water and Irrigation Act 1914</i> . This area is proclaimed for the purposes of regulating the taking of water from watercourses and wetlands for current and future users.	Approximately 430 m
Margaret River Tributary, minor, non-perennial bearing south west. No stream gauging data is available for this tributary.	Approximately 370 m
Margaret River Tributary, minor, non-perennial bearing south east. No stream gauging data is available for this tributary.	Approximately 700 m

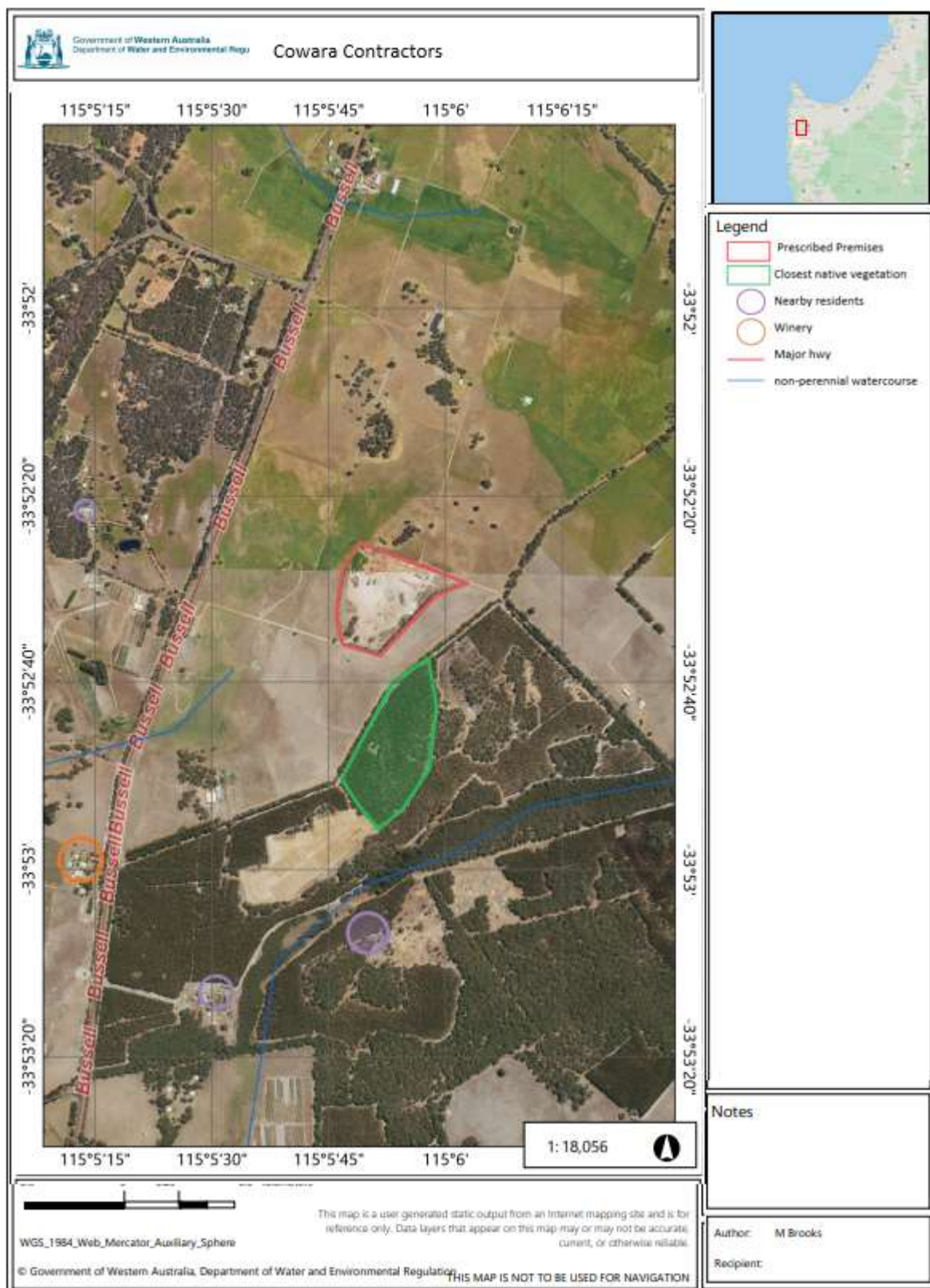


Figure 3: Distance to receptors

4. Legislative context and other approvals

A summary of relevant legislation can be found in Table 6 below.

The Applicant has provided evidence that they are the landowner and have given approval for Sandtracks Consulting to apply for the works approval on their behalf.

The Shire is currently assessing the development approval application for a Compost Facility, as well as a crushing and solid waste depot separately.

Table 6: Relevant Legislation

Legislation	Number	Approval
<i>Environmental Protection Act 1986</i>	L-TBA	A Licence under Part V will be required for the Composting activities once the works approval process has been completed.
<i>Planning and Development Act 2005</i>	DA752-2018	The Applicant has applied for development approval from the Shire. The application is currently under assessment.

5. Compliance

An investigation was conducted regarding activities onsite and included an investigation as to whether they should be licenced under Part V of the EP Act as a prescribed Premises. The investigation was closed on May 2019. The DWER compliance team recommended that Cowara Contractors apply for a Part V licence for category 13 and category 62 for their current and ongoing activities onsite. This application was received by DWER on 11 December 2019. The licence application is currently being processed by DWER.

6. Proposed controls relating to emissions

Table 7 below outlines the potential emissions, and the proposed controls for those emissions.

Table 7: Summary of Potential Emissions and Proposed Controls

Source	Potential Emission	Proposed Controls
Construction		
Ground works, truck movements.	Dust	See section 6.1
	Noise	See section 6.2
Operation		
Waste acceptance and composting	Leachate and potentially contaminated stormwater	See section 6.3
	Odour	See section 6.4
	Dust	See section 6.1
	Noise	See section 6.2
Upset conditions – compost fire	Compost fire (particulates and noxious gases)	See section 6.5
Production of compost that is fit for market	Pathogens and contaminants	See section 6.6

6.1 Proposed dust controls

The Applicant has proposed that the following controls will be implemented during both construction and operation:

- Watering down of all unsealed trafficable areas as required;
- Watering down of dust generating areas and dusty materials and maintaining a water cart on site for this purpose, or covering dusty materials;
- Activities with a high potential for dust generation will be stopped during weather conditions that are likely to contribute to an increase in dust;
- All complaints will be recorded and investigated;
- Limiting vehicle speeds to less than 40 km/hr and prohibiting traffic in non-active areas;
- Maintaining stockpile heights at less than 4 m; and
- All trucks entering and leaving will be covered.

6.2 Proposed noise controls

To minimise noise emissions during construction and operation the Applicant is proposing to:

- Record and investigate all complaints; and
- Regularly service vehicles.

6.3 Proposed leachate and stormwater controls

The predominant leachate control measure is the use of a graded clay hardstand area topped with gravel that directs all run-off to a clay leachate pond. Additional information is provided under the list of infrastructure section of this report in section 2.1.

6.4 Proposed odour controls

No odour emissions are anticipated during construction. To minimise odour emissions during operation, the Applicant is proposing to:

- Continuously process feed stocks as quickly as possible, limiting the time the material is stockpiled or stored prior to the composting process commencing;
- Cleaning processing areas and feedstock storage areas at the end of each day;
- Ensuring all deliveries of feedstock are contained in covered trucks;
- Processing high risk feedstocks immediately;
- Regular monitoring of compost odour during processes
- Maintaining optimum temperature and moisture content conditions in the composting windrows to ensure rapid decomposition of organics; and
- Maintain a Carbon: Nitrogen ratio of 30:1.

6.5 Proposed fire controls

- Each windrow is proposed to be approximately 50-100 m long, 4-6 m wide and 2-3 m high. There is a proposed minimum distance of 4 m around the perimeter of the hardstand and 2 m distance between each windrow.

6.6 Proposed pathogen and contaminant controls

No pathogen and contaminant emissions are anticipated during construction. To minimise pathogen and contaminant emissions during operation, the Applicant is proposing to:

- Regular turning of feedstocks;
- Watering down of feedstocks;
- Compliance with AS4454 including on site testing;
- Capture and control leachate and stormwater on the premises; and
- Waste acceptance.

7. Risk Assessment

The potential for emissions to impact on sensitive receptors has been assessed in accordance with the Department's Risk Framework. Following completion and compliance with a works approval, a licence under Part V of the EP Act will be required to authorise emissions associated with the operation of the premises.

A risk assessment for the operational phase has been included in this Decision Report, however licence conditions will not be finalised until DWER assesses the licence application. Any deviation from the proposed activities assessed in this report may require an updated risk assessment for the licence.

7.1 Risk Assessment – Construction

Risk Event					Consequence rating*	Likelihood rating*	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	Potential emissions	Potential receptors	Potential pathway & impact	Applicant controls					
Ground works, truck movements, installation and placement of equipment and infrastructure.	Dust	Human receptors (closest resident 750 m east).	Air/windborne pathway causing amenity impacts	As discussed in section 6.1	Slight	Unlikely	Low	Due to the short duration, the construction works are not expected to generate significant dust or noise emissions. The proposed controls are expected to be sufficient at mitigating dust and noise emissions.	Works approval conditions relating to dust management consistent with Applicant's proposed controls.
	Noise	Human receptors (closest resident 750 m south)	Air/windborne pathway causing amenity impacts	As discussed in section 6.2	Slight	Unlikely	Low		The Delegated Officer considers that the general provisions of the EP Act, and the <i>Environmental Protection (Noise) Regulations 1997</i> (Noise Regulations) are sufficient in regulating noise emissions.

*Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

7.2 Risk Assessment – Operation

The below risk assessment for operation comprises information only – licence conditions have not been finalised.

Risk Event					Consequence rating	Likelihood rating	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	Potential emissions	Potential receptors	Potential pathway & impact	Applicant controls					
Waste acceptance and composting Vehicle movement	Dust	Human receptors (closest resident 750 m south).	Air/windborne pathway causing amenity impacts	As discussed in section 6.1	Slight	Unlikely	Low	Any dust generated during operations may cause minimal impacts to surface waters and would probably not occur in most circumstances.	Works approval conditions relating to dust management consistent with Applicants proposed controls. Licence conditions are likely to be consistent with Applicants proposed controls Licence conditions likely for Stockpile height and windrow heights less than 4 metres
				As discussed in section 6.1	Slight	Unlikely	Low	Any dust generated during operations may cause minimal impacts to amenity and would probably not occur in most circumstances.	
Waste acceptance and composting Vehicle movement Including operations before 7 am and on weekends	Noise	Human receptors (closest resident 750 m south).	Air/windborne pathway causing amenity impacts	As discussed in section 6.2	Slight	Unlikely	Low	Any noise generated during operations may cause minimal impacts to receptors and would probably not occur in most circumstances.	Works approval conditions consistent with Applicant's proposed controls and likely to be non-specific, covered under the noise regulations. Licence conditions consistent with Applicants proposed controls and likely to be covered under the Noise Regulations.

Risk Event					Consequence rating	Likelihood rating	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	Potential emissions	Potential receptors	Potential pathway & impact	Applicant controls					
<p>Waste acceptance and composting</p> <p>Application of liquid wastes</p> <p>Storage of leachate in a leachate pond</p>	<p>Leachate and potentially contaminated stormwater</p>	Groundwater	Overland flow and seepage to groundwater potentially impacting groundwater quality	<p>As discussed in section 6.3</p>	Moderate	Possible	Medium	Clay hardstands are subject to deterioration over time, therefore it is possible that groundwater contamination could occur at some time.	<p>Works approval conditions for infrastructure and equipment consistent with the Applicant's proposed controls and additional infrastructure specifications regarding hardstand and storage pond -clay layer at least 300 mm thick with a permeability of 1×10^{-9} m/s or less and minimum compaction of 95%. Protective later at least 150 mm thick to prevent damage and desiccation.</p> <p>Licence conditions consistent with Applicants proposed controls and will include controls relating to managing leachate pond freeboard, and groundwater and surface water monitoring. To determine effectiveness of Applicant controls</p> <p>Works approval conditions relating to construction of 3 x groundwater monitoring bores which will be used to facilitate groundwater monitoring during operations, to demonstrate effectiveness of the controls.</p>
		Margaret River Tributary, minor – non-perennial	Overland flow, to surface water features impacting surface water quality		Moderate	Unlikely	Medium	In the event of leachate emissions are released to stormwater or land specific consequence criteria (for environment) are at risk of not being met.	
		Premises lot and adjoining land	Overland flow, to land impacting soil quality.		Moderate	Likely	High	<p>A review of the pond capacity indicates that it is likely that this storage pond will overtop in a wet (90th percentile) rainfall year.</p> <p>As runoff from the overtopped pond will discharge to the adjacent land, it is unlikely overland flow will reach the surface water tributary</p>	
<p>Waste acceptance and composting</p> <p>Application of liquid wastes</p> <p>Storage of leachate in a leachate pond</p>	Odour	Human receptors (closest resident 750 m south).	Air/windborne pathway causing amenity impacts	<p>As discussed in section 6.4</p>	Major	Possible	High	<p>Due to the acceptance of highly odorous feedstocks in large quantities there is potential for high level impacts to amenity. While the Applicant has implemented a number of odour control measures impacts to amenity could still occur at some time.</p>	<p>Licence conditions consistent with Applicants proposed controls and will include additional process monitoring controls to minimize the potential for odour impacts during operation and reporting of these results.</p>

Risk Event					Consequence rating	Likelihood rating	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	Potential emissions	Potential receptors	Potential pathway & impact	Applicant controls					
Upset conditions – compost fire	Particulates, noxious gases and smoke	Human receptors (closest resident 750 m east).	Air/windborne pathway causing health and amenity impacts	As discussed in section 6.5	Major	Rare	Medium	A fire at the premises may cause high level impacts to amenity and short-term impacts to the nature reserves. The applicant controls, including stockpile separation distance, are unlikely to reduce the spread of fire between the windrows. These impacts would only occur in exceptional circumstances.	Licence conditions will require maintenance of a buffer between operations and site boundary. Additional licence conditions will require modification of the proposed windrow and stockpile separation distances to minimize the potential for emissions associated with fire.
		Native Vegetation 250 m east.	Direct contact with fire causing destruction of flora and fauna and natural habitats.		Major	Rare	Medium		
preparation of compost product	Pathogens	Pathogen and contaminant content of compost product causing product to be unfit for market.	Direct contact with product	As discussed in section 6.6	Moderate	likely	Medium	Inadequate treatment of feedstock through composting could result in an exceedance of specific consequence criteria for public health and environment. This would only occur in exceptional circumstances where compost not meeting the relevant standard is produced and distributed from the premises.	Licence conditions consistent with Applicants proposed controls and will include additional process controls. Licence conditions will include measures to prevent pooling and stagnation of leachate and maintenance of infrastructure and on-site storage.

*The works approval that accompanies this Report authorises construction only. A licence is required for operations.

**Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

8. Consultation

Method	Comments received	DWER response
Application advertised on DWER website on 23 December 2019	None received	N/A
Shire of Augusta - Margaret River contacted for comment on 19 December 2019	Response received 13 January 2020. The Shire noted that it has an application (P219158) that is currently under assessment. The Shire was unable to give an estimated time of approval. The Shire noted that there were ongoing issues with site access.	DWER has noted the timeline of the Development Approval is not known
Applicant notified of draft on 26 March 2020.	The Applicant has requested that Saturday morning be included in the operating time.	This information was already included in the initial application and was included in the risk assessment.

9. Determination of Works Approval conditions

Conditions have been determined in accordance with the *Guidance Statement: Setting Conditions*.

Table 9 provides a summary of the conditions to be applied to this works approval

Table 8: Summary of Works Approval Conditions

Condition Ref	Grounds
Infrastructure and Equipment conditions	These conditions are valid, risk based and contain appropriate conditions
Emissions	These conditions are valid and consistent with the EP Act.
Information	These conditions are valid and are necessary administration and reporting requirements to ensure compliance

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the works approvals under the EP Act.

10. Conclusion

This assessment of the risks of activities on the premises has been undertaken with due consideration of several factors, including the documents and policies specified in this decision report (summarised in Appendix 1).

Tracey Hassell

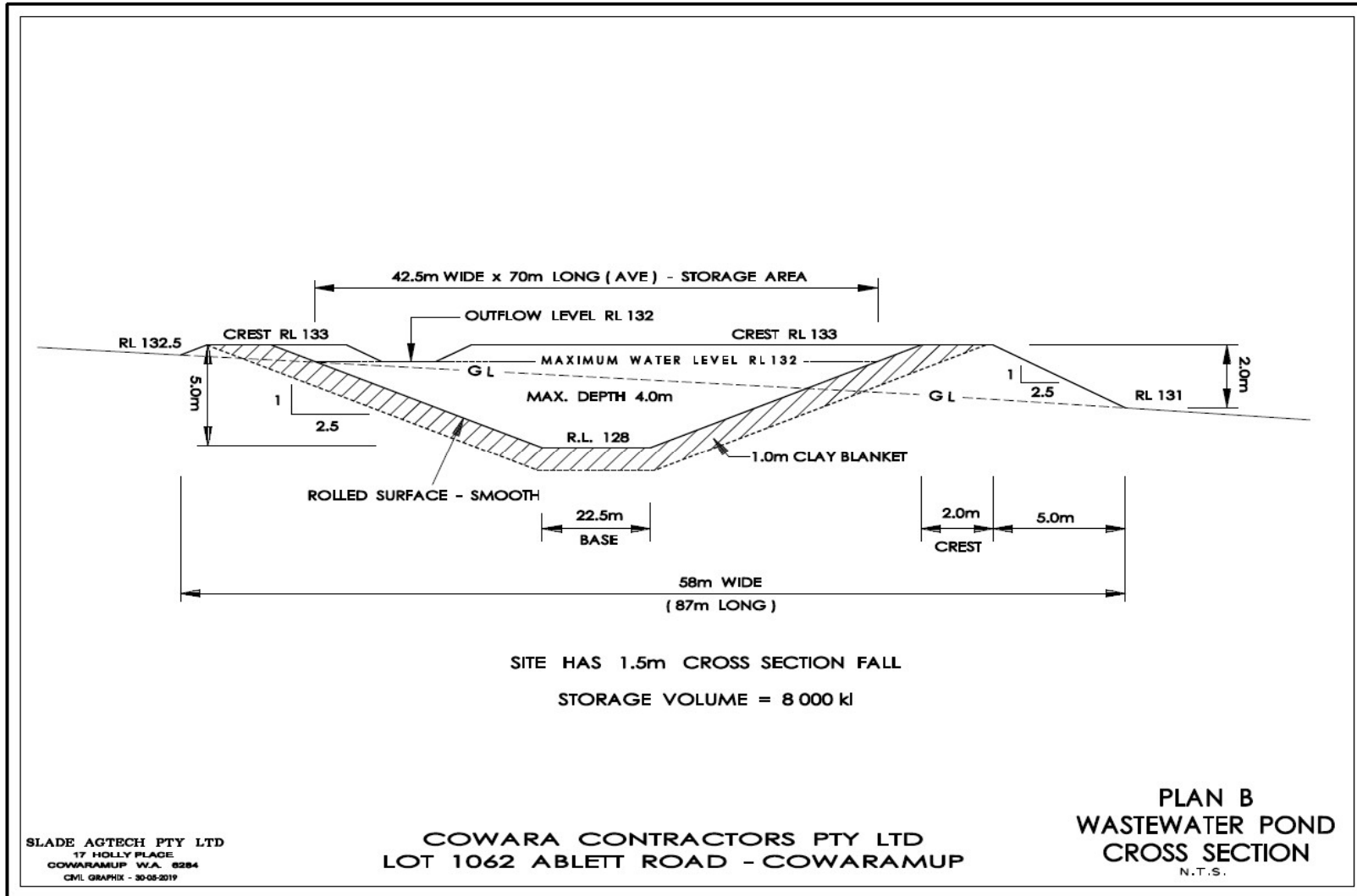
A/MANAGER, WASTE INDUSTRIES

Officer delegated under section 20 of the Environmental Protection Act 1986

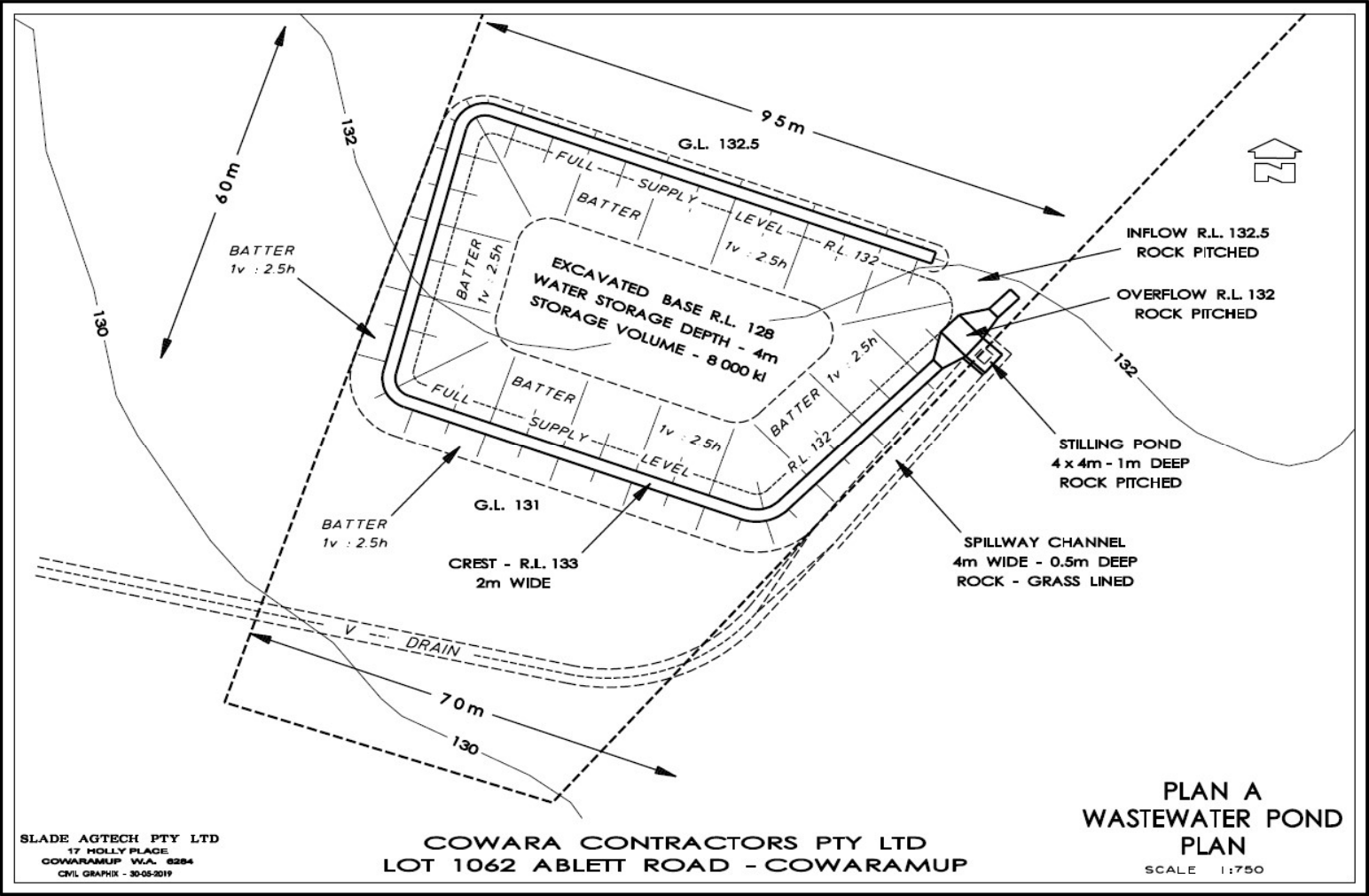
Appendix 1: Key documents

	Document title	In text ref	Availability
1.	Works Approval application W6328/2019/1–Cowara Contractors	Works Approval Application	DWER records
2.	Works Approval more information provided RFI 1		
3.	Works Approval more information provided RFI 2		
4.	Shire of Augusta-Margaret River Direct Interest Response	SoAM 2019	
5.	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
6.	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
7.	DER, May 2016. <i>Guidance Statement: Publication of Annual Audit Compliance Reports</i> . Department of Environment Regulation, Perth.	DER 2016a	
8.	DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	DER 2016b	
9.	DER, September 2016. <i>Guidance Statement: Environmental Standards</i> . Department of Environment Regulation, Perth.	DER 2016c	
10.	DER, November 2016. <i>Guidance Statement: Environmental Siting</i> . Department of Environment Regulation, Perth.	DER 2016d	
11.	DER, February 2017. <i>Guidance Statement: Land Use Planning</i> . Department of Environment Regulation, Perth.	DER 2017a	
12.	DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2017b	
13.	DWER, June 2019. <i>Guideline: Decision Making</i> . Department of Water and Environmental Regulation, Perth.	DWER 2019a	
14.	DWER, June 2019. <i>Guideline: Industry Regulation Guide to Licensing</i> . Department of Water and Environmental Regulation, Perth.	DWER 2019b	

Appendix 2: Leachate Pond Drawing 1



Appendix 3: Leachate Pond Drawing 2



Appendix 4: Soil Permeability Analysis



**Construction
Sciences**

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PERMEABILITY OF A SOIL



Client:	Cowara Contractors Pty Ltd	Report Number:	5022/R/29838-1
Client Address:	37 Ablett Road, COWARAMUP	Project Number:	5022/P/1349
Project:	Cowara Compost Facility	Lot Number:	Clay Sample
Location:	Cowaramup WA	Internal Test Request:	5022/T/9412
Supplied To:	n/a	Client Reference/s:	
Area Description:		Report Date / Page:	23/05/2019 Page 1 of 1

Test Procedures:	AS1289.6.7.2	Sample Location	
Sample Number	5022/S/48970	Test Request	
Sampling Method	Tested As Received	Area	
Date Sampled	13/05/2019	Location	
Sampled By	Client Sampled	Material Type	-
Date Tested	17/05/2019		
Material Source	Insitu Material		

Soil Description:	Pale Brown Rocky CLAY		
Retained on 19.0 mm Sieve (%)	0.0	Compaction Method:	Standard AS1289.5.1.1
Maximum Dry Density (t/m ³)	1.90900	Optimum Moisture Content (%)	14.2
Dry Density of Sample (t/m ³)	1.818	Moisture at Compaction (%)	14.0
Achieved Dry Density Ratio (%)	95.2	Achieved Moisture Ratio (%)	98.6
Surcharge Mass (kg)	2.312	Surcharge Pressure (kPa)	2.6
Moisture % After Permeability (%)	16.3	Hydraulic Gradient	

Coefficient of Permeability (Falling Head)	7E-008 m/s (7E-006 cm/s)
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Remarks

 <p>The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing</p> <p>Accreditation Number: 1986 Corporate Site Number: 5022</p>	 <p>Approved Signatory: Paul Kent Form ID: W49Rep Rev1</p>
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CAD FILE: CADrafting\Agtech\Projects\2019-05-21 Cowara Compost Facility\CAD\SP-GA-001 Rev A.dwg

