



Works Approval Number	W6223/2019/1
Works Approval Holder	Bunbury Harvey Regional Council
Registered business address	7 Mulgara Street AUSTRALIND WA 6233
File Number	DER2018/001584
Duration	24/04/2020 to 23/04/2025
Date of issue	24/04/2020
Prescribed Premises	Category 67A – Compost manufacturing and soil blending Category 61A – Solid waste facility
Premises	Stanley Road Class II Putrescible Landfill site 51 Stanley Road WELLESLEY WA 6233 Lot 45 on Deposited Plan 17161 as depicted in Schedule 1

This Works Approval is granted to the Works Approval Holder, subject to the following conditions, on 24 April 2020, by:

Tracey Hassell

**A/MANAGER WASTE INDUSTRIES
REGULATORY SERVICES**

an officer delegated under section 20 of the *Environmental Protection Act 1986 (WA)*

Explanatory notes

These explanatory notes do not form part of this Works Approval.

Defined terms

Definition of terms used in this Works Approval can be found at the start of this Works Approval. Terms which are defined have the first letter of each word capitalised throughout this Works Approval.

Department of Water and Environmental Regulation

The Department of Water and Environmental Regulation (DWER) is 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 *Environmental Protection Act 1986 (WA)* (EP Act). The Department also monitors and audits compliance with licences and works approvals, takes enforcement action and develops and implements licensing and industry regulation policy.

Works Approval

Section 52 of the EP Act provides that an occupier of any premises commits an offence if any work is undertaken on, or in relation to, the premises which causes the premises to become, or to become capable of being, Prescribed Premises, except in accordance with a works approval.

Section 56 of the EP Act provides that an occupier of Prescribed Premises commits an offence if Emissions are caused or increased or permitted to be caused or increased, or Waste, noise, odour or electromagnetic radiation is altered or permitted to be altered from Prescribed Premises, except in accordance with a works approval or licence.

Categories of Prescribed Premises are defined in Schedule 1 of the *Environment Protection Regulations 1987 (WA)* (EP Regulations).

This Works Approval does not authorise any activity which may be a breach of the requirements of another statutory authority including, but not limited to, the following:

- conditions imposed by the Minister for Environment under Part IV of the EP Act;
- conditions imposed by DWER for the clearing of native vegetation under Part V, Division 2 of the EP Act;
- any requirements under the *Waste Avoidance and Resource Recovery Act 2007*;
- any requirements under the *Environmental Protection (Controlled Waste) Regulations 2004*; and
- any other requirements specified through State legislation.

It is the responsibility of the Works Approval Holder to ensure that any action or activity referred to in this Works Approval is permitted by, and is carried out in compliance with, statutory requirements.

The Works Approval Holder must comply with the Works Approval. Contravening a Works Approval Condition is an offence under s.55 of the EP Act.

Responsibilities of Works Approval Holder

Separate to the requirements of this Works Approval, general obligations of Works Approval Holders are set out in the EP Act and the regulations made under the EP Act. For example, the Works Approval Holder must comply with the following provisions of the EP Act:

- the duties of an occupier under s.61; and

- restrictions on making certain changes to Prescribed Premises unless the changes are in accordance with a Works Approval, Licence, closure notice or environmental protection notice (s.53).

Strict penalties apply for offences under the EP Act.

Reporting of incidents

The Works Approval Holder has a duty to report to the Department all Discharges of Waste that have caused or are likely to cause Pollution, Material Environmental Harm or Serious Environmental Harm, in accordance with s.72 of the EP Act.

Offences and defences

The EP Act and its regulations set out a number of offences including:

- Offence of emitting an Unreasonable Emission from any Premises under s.49.
- Offence of causing Pollution under s.49.
- Offence of dumping Waste under s.49A.
- Offence of discharging Waste in circumstances likely to cause Pollution under s.50.
- Offence of causing Serious Environmental Harm (s.50A) or Material Environmental Harm (s.50B).
- Offence of causing Emissions which do not comply with prescribed standards (s.51).
- Offences relating to Emissions or Discharges under regulations prescribed under the EP Act, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)*.
- Offences relating to noise under the *Environmental Protection (Noise) Regulations 1997 (WA)*.

Section 53 of the EP Act provides that a Works Approval Holder commits an offence if Emissions are caused, or altered, from a Prescribed Premises unless done in accordance with a Works Approval, Licence or the requirements of a closure notice or an environmental protection notice.

Defences to certain offences may be available to a Works Approval Holder and these are set out in the EP Act. Section 74A(b)(iii) provides that it is a defence to an offence for causing Pollution, in respect of an Emission, or for causing Serious Environmental Harm or Material Environmental Harm, or for discharging or abandoning Waste in water to which the public has access, if the Works Approval Holder can prove that an Emission or Discharge occurred in accordance with a Works Approval.

This Works Approval specifies the Emissions and Discharges, and the limits and Conditions which must be satisfied in respect of specified Emissions and Discharges, in order for the defence to offence provision to be available.

Authorised Emissions and Discharges

The specified and general Emissions and Discharges from the Works authorised through this Works Approval are authorised to be conducted in accordance with the Conditions of this Works Approval.

Amendment of Works Approval

The Works Approval Holder can apply to amend the Conditions of this Works Approval under s.59 of the EP Act. An application form for this purpose is available from DWER.

The CEO may also amend the Conditions of this Works Approval at any time on the initiative

of the CEO without an application being made.

Duration of Works Approval

The Works Approval will remain in force for the duration set out on the first page of this Works Approval or until it is surrendered, suspended or revoked in accordance with s.59A of the EP Act.

Suspension or revocation

The CEO may suspend or revoke this Works Approval in accordance with s.59A of the EP Act.

Definitions and interpretation

Definitions

In this Works Approval, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
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
Condition	means a condition to which this Works Approval is subject under s.62 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.
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Works Approval Holder in writing and sent to the Works Approval's address for notifications, as described at the front of this Works Approval, in relation to: (a) compliance with the EP Act or this Works Approval; (b) the Books or other sources of information maintained in accordance with this Works Approval; or (c) the Books or other sources of information relating to Emissions from the Premises.
Discharge	has the same meaning given to that term under the EP Act.
DWER	Department of Water and Environmental Regulation
Emission	has the same meaning given to that term under the EP Act.
Environmental Harm	has the same meaning given to that term under the EP Act.
EP Act	means the <i>Environmental Protection Act 1986</i> (WA).
EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA).

Term	Definition
Implementation Agreement or Decision	has the same meaning given to that term under the EP Act.
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
Licence Holder	Bunbury Harvey Regional Council
Material Environmental Harm	has the same meaning given to that term under the EP Act.
Pollution	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Works Approval applies, as specified at the front of this Works Approval and as shown on the map in Schedule 1 to this Works Approval.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Qualified and Experienced Engineer	<p>means a person who:</p> <ul style="list-style-type: none"> (a) holds a Bachelor of Engineering recognised by the Institute of Engineers; (b) has a minimum of five years of experience working in a supervisory area of structural or mechanical engineering; and (c) is employed by an independent third party external to the Works Approval Holder's business. <p>or is otherwise approved in writing by the CEO to act in this capacity.</p>
Reportable Event	means an exceedance above the target limit specified in Column 4 of Table 6, in Schedule 3.
Serious Environmental Harm	has the same meaning given to that term under the EP Act.
Unreasonable Emission	has the same meaning given to that term under the EP Act.
Waste	has the same meaning given to that term under the EP Act.
Works	refers to the Works described in Schedule 2, at the locations shown in Schedule 1 of this Works Approval to be carried out at the Premises, subject to the Conditions.
Works Approval	refers to this document, which evidences the grant of the works approval by the CEO under s.54 of the EP Act, subject to the Conditions.

Term	Definition
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.

Interpretation

In this Works Approval:

- (a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';
- (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; and
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act.

Conditions

Infrastructure and equipment

1. The Works Approval Holder must install and undertake the Works for the infrastructure and equipment:
 - (a) specified in Column 1;
 - (b) to the requirements specified in Column 2; and
 - (c) at the location specified in Column 4
 of Table 2 below.
2. Subject to Condition 1, within 60 days of the completion of the Works specified in Column 1 of Table 2, the Works Approval Holder must provide to the CEO a report/engineering/building certification from a Qualified and Experienced Engineer confirming each item of infrastructure or component of infrastructure specified in Column 1 of **Error! Reference source not found.** below has been constructed with no material defects and to the requirements specified in Column 2.
3. Where a departure from the requirements specified in Column 2 of Table 2 occurs and is of a type allowed by Condition 2, the Works Approval Holder must provide to the CEO a description of, and explanation for, the departure along with the certification required by Condition 2.

Table 2: Infrastructure and equipment requirements table

Column 1	Column 2	Column 4
Infrastructure/Equipment	Requirements (design and construction)	Site plan reference
Composting pad for base level of compost facility area	<p>The base level of the facility will be constructed with the following specifications:</p> <ul style="list-style-type: none"> • The pad will be constructed by cutting (excavation) and filling using the in-situ ground material to achieve the final designed pad level. • The base pad levels will be designed and constructed to maintain at least 3m vertical distance between the uppermost aquifer levels and the ground surface. 	Composting Pad / Composting Facility Area as shown in Schedule 1
Concrete slab for tunnel composting plant area	<p>The areas to be covered by the tunnel composting plant must be constructed with the following specifications:</p> <ul style="list-style-type: none"> • on a concrete slab with a hydraulic conductivity of less than 1×10^{-9} m/s. • The slab is to be engineered and constructed so as to be capable of accommodating the weight and movement of materials, vehicles and equipment used in the production of compost and which are required to operate on the hardstand, without compromising the integrity of the hardstand or altering the drainage standard. 	Tunnel Composting Plant as shown in Schedule 1

Column 1	Column 2	Column 4
Infrastructure/Equipment	Requirements (design and construction)	Site plan reference
Waste reception and pre-treatment building	<p>The waste reception and pre-treatment building must be constructed with the following specifications:</p> <ul style="list-style-type: none"> Fully enclosed building; Maintained under negative pressure; and the bulk air of the building extracted and treated for odour to a target performance of approximately 97% of its original odour removed. 	Waste reception and pre-treatment building as shown in Schedule 1
Composting tunnels	<p>The composting tunnel must be constructed with the following specifications:</p> <ul style="list-style-type: none"> Fully enclosed and sealed concrete tunnel with lockage and rubber sealed doors; creating an air tight environment with some process air being collected and recycled back into the process and the remaining air discharged via the biofilter; and with process water infrastructure such that process water from the tunnels and condensate from associated ductworks is collected through a network of sealed pipes and gravity drains into a sealed process water reclamation tank, to allow recycling back into the tunnel. 	Composting tunnels
Hardstand for other composting pad areas not covered by composting tunnel plant	<p>The areas of the pad that are not covered with the plant, or sealed roadways must be constructed with the following specification:</p> <ul style="list-style-type: none"> will be covered with a layer of hardstand comprising of compacted lime gravel or similar materials, of at least 150 mm thickness and with a hydraulic conductivity of less than 1×10^{-8} m/s. The area of the pad where outdoor composting will be undertaken (approximately 12,000 m² of the total 41,000 m² pad area) will have a liner (such as high density polyethylene or similar) with a permeability of 1×10^{-11} m/s or lower placed beneath the gravel layer, to prevent compost affected stormwater from infiltrating into groundwater beneath the pad. Subject to detailed design, other materials may also be placed between the hard stand layer, and the barrier layer, as shown in Figure 1. The surface of the pad will be profiled to at least 1:100 (1%) drainage gradient to ensure free drainage of water and/or leachate to water collection infrastructure. 	Mulching Area Maturation Area As shown in Schedule 1

Column 1	Column 2	Column 4
Infrastructure/Equipment	Requirements (design and construction)	Site plan reference
<p>Drainage infrastructure</p> <p>(including bunds, berms, pipe network, ponds)</p>	<p>The infrastructure must be constructed with the following specifications:</p> <ul style="list-style-type: none"> • Drainage infrastructure must include structures of a suitable standard to prevent run-on and run-off of surface water, including a 1 in 20 year storm event of 24 hours duration. • Drainage infrastructure will prevent mixing of water sourced from pasteurised material areas (maturation windrows and product storage) and unpasteurised materials (green waste, mulching area, compost tunnels, waste receivals area, truck washdown areas). • Drainage infrastructure must enable run-off from various pad areas to be collected and directed to either the leachate or the stormwater pond such that water from unpasteurised material areas are directed to the leachate pond, and water from pasteurised material areas are directed to the stormwater pond. 	<p>Maturation Area Mulching Area Tunnel Composting Plant Composting Pad Leachate Pond Stormwater Pond as shown in Schedule 1</p>
<p>Leachate pond</p>	<p>The leachate pond must be constructed with the following specifications:</p> <ul style="list-style-type: none"> • Approximately 3 ML capacity; • designed to contain a 1 in 10 year ARI storm event based on a detailed water balance; • designed to maintain free board of 0.3 m to 0.5 m based on a detailed water balance; • lined with a HDPE membrane or similar with a permeability of 1×10^{-11} m/s or lower; • Include any structures needed to prevent overflows; and • Including an audio and visual high-level alarm to alert the operational staff of critical dam capacity. 	

Column 1	Column 2	Column 4
Infrastructure/Equipment	Requirements (design and construction)	Site plan reference
Stormwater pond	<p>The stormwater pond must be constructed with the following specifications:</p> <ul style="list-style-type: none"> • Approximately 3 ML capacity; • designed to contain a 1 in 10 year ARI storm event based on a detailed water balance; • designed to maintain free board of 0.3 m to 0.5 m based on a detailed water balance; • lined with a HDPE membrane or similar with a permeability of 1×10^{-11} m/s or lower; and • Include any structures needed to prevent overflows to areas outside of the composting area 	
Biofilter	<p>The biofilter must be constructed with the following specifications:</p> <ul style="list-style-type: none"> • contain a 1 m thick filter bed, comprising of composted material (roots, bark, humus, compost); • includes an air humidifier prior to entering the biofilter, or similar design such that after leaving the biofilter, to a target performance of the air having approximately 97% of its original odour removed or achieve the target performance of 500 odour units (ou); and • include any instrument or design feature needed to monitor the odour levels (or surrogate parameters) in operation. 	

4. The Works Approval holder must prior to undertaking excavations at the Premises, undertake acid sulfate soil investigations in accordance with the Acid Sulfate Soil Guideline - *Identification and investigation of acid sulfate soil and acidic landscapes* (DER June 2015).
5. A report of the acid sulfate soils investigations including details of any actions to be undertaken to manage the risk of acid sulfate soils during earthworks must be provided to the CEO 30 days prior to excavations commencing.

Emissions

6. The Works Approval Holder must not cause any Emissions from the Works authorised through this Works Approval except for specified Emissions and general Emissions described in Column 1 of Table 3, subject to the exclusions, limitations or requirements specified in Column 2, of Table 3.

Table 3: Authorised Emissions table

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
General Emissions (excluding Specified Emissions)	
Emissions which arise from undertaking the Works set out in Schedule 2.	Emissions excluded from General Emissions are: <ul style="list-style-type: none"> • Unreasonable Emissions; or • Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or • Discharges of Waste in circumstances likely to cause Pollution; or • Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or • Emissions or Discharges which do not comply with an Approved Policy; or • Emissions or Discharges which do not comply with prescribed standard; or • Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or • Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the Environmental Protection (<i>Unauthorised Discharges</i>) Regulations 2004.

Record-keeping

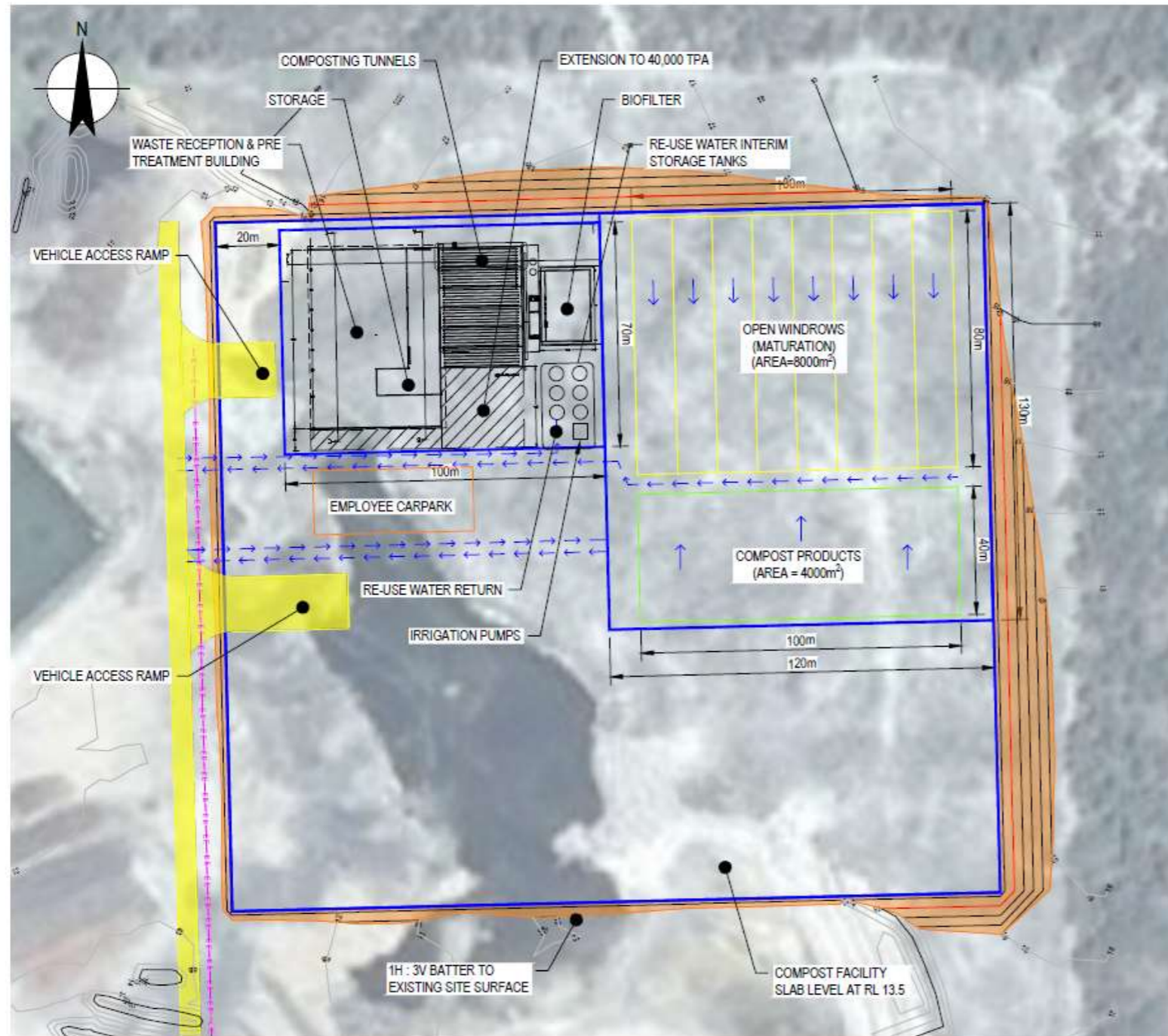
7. The Works Approval Holder must maintain accurate Books including information, reports and data in relation to the Works and the Books must:
 - (a) be legible;
 - (b) if amended, be amended in such a ways that the original and subsequent amendments remain legible or are capable of retrieval;
 - (c) be retained for at least 3 years from the date the Books were made;
 - (d) be available to be produced to an Inspector or the CEO.

8. 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.

Schedule 1: Maps

Premises map

The Premises are shown in the map below. The Premises boundary is defined as Lot 45 on Deposited Plan 17161, indicated in red on the map.



LEGEND

- EXISTING SITE CONTOURS (1m INCREMENT)
- DESIGN CONTOURS (1m INCREMENT)
- SITE BOUNDARY
- COMPOST FACILITY AREA
- NEW ACCESS ROAD
- WATER FLOW DIRECTION
- LEACHATE AND STORMWATER PIPES
- POWER SUPPLY ROUTE

NOTES

1. ALL INFRASTRUCTURE HAS BEEN SCALED FROM BUNBURY-HARVEY REGIONAL COUNCIL DRAWING TITLED 'TUNNEL COMPOSTING PLANT 35,000 tpa - TYPICAL'
2. GHD SCOPE OF WORKS IS LIMITED TO THE COMPOST FACILITY BOUNDARY



PRELIMINARY

rev	description	app'd	date
D	REVISED	DG	18.03.19
C	REVISED	DG	01.11.18

BUNBURY-HARVEY REGIONAL COUNCIL
STANLEY ROAD COMPOSTING FACILITY
CONCEPT DESIGN



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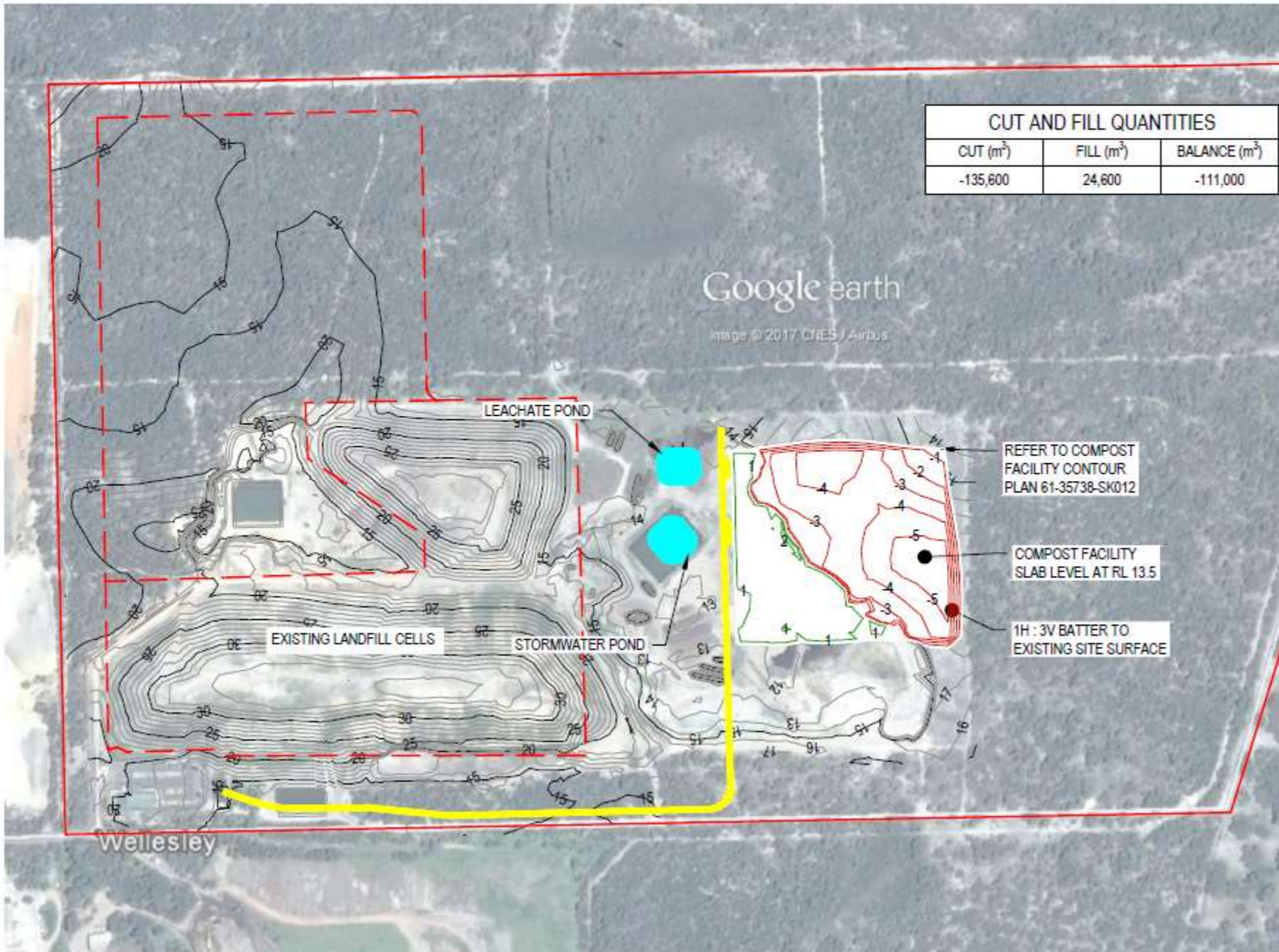


LEGEND

- EXISTING SITE CONTOURS (1m INCREMENT)
- SITE BOUNDARY
- COMPOST FACILITY INFRASTRUCTURE
- ROAD
- STORMWATER POND
- LANDFILL CELLS
- CUT LEVEL (m)
- FILL LEVEL (m)
- NULL LEVEL (m)

NOTES

1. GHD SCOPE OF WORKS IS LIMITED TO THE COMPOST FACILITY BOUNDARY
2. CUT AND FILL PROFILE IS BASED ON DEPTH BETWEEN THE EXISTING SURFACE AND THE COMPOST FACILITY PLAN (61-35738-SK012)
3. CUT AND FILL QUANTITIES ARE BASED ON VOLUME CALCULATIONS BETWEEN THE EXISTING SURFACE AND THE COMPOST FACILITY PLAN (61-35738-SK012)



CUT AND FILL QUANTITIES		
CUT (m ³)	FILL (m ³)	BALANCE (m ³)
-135,600	24,600	-111,000

REFER TO COMPOST FACILITY CONTOUR PLAN 61-35738-SK012

COMPOST FACILITY SLAB LEVEL AT RL 13.5

1H : 3V BATTER TO EXISTING SITE SURFACE



PRELIMINARY

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D	REVISED	DG	18.03.19
C	REVISED	DG	02.11.18

BUNBURY-HARVEY REGIONAL COUNCIL
STANLEY ROAD COMPOSTING FACILITY
CONCEPT MASTERPLAN
CUT AND FILL PROFILE



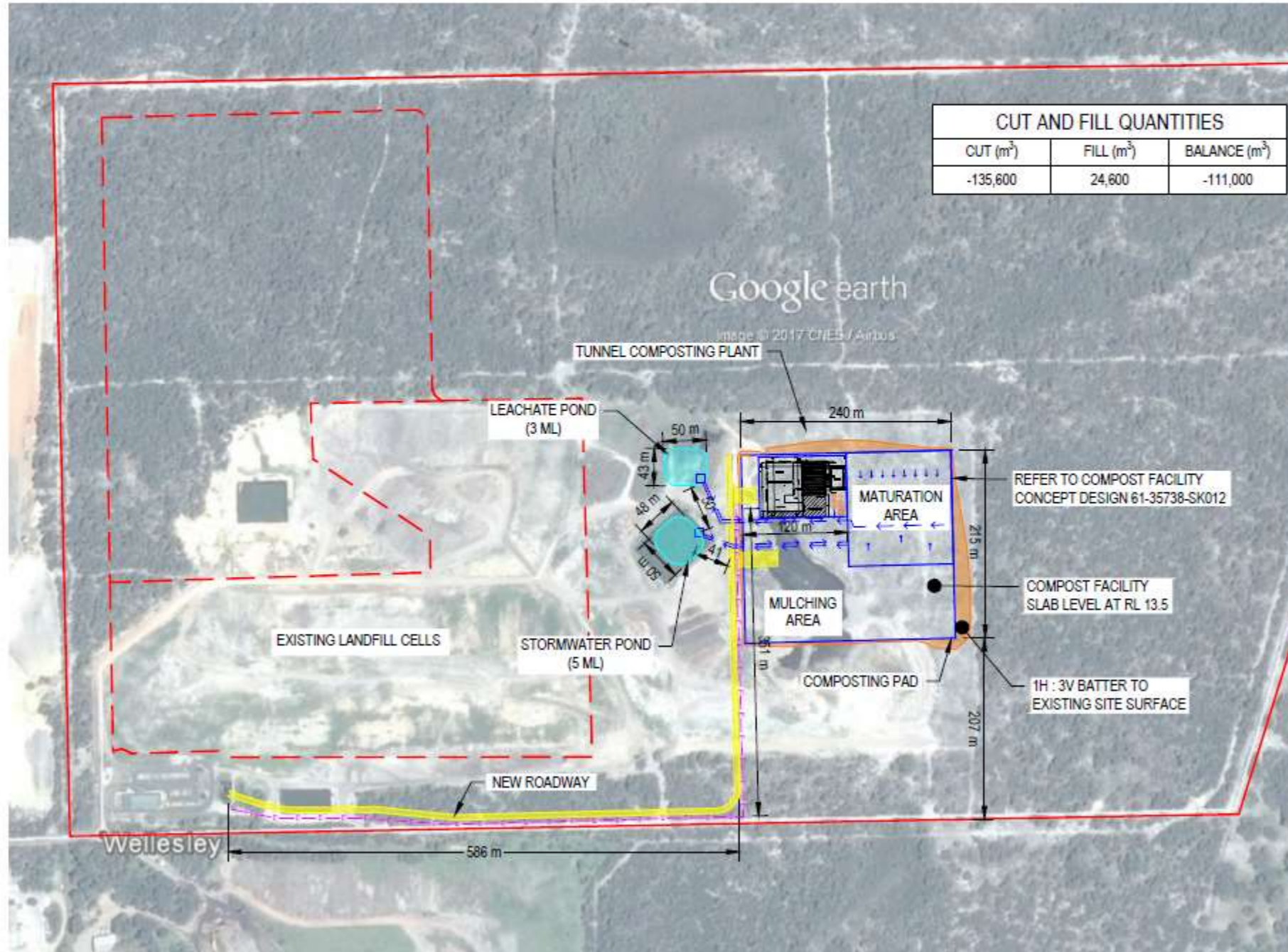
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CUT AND FILL QUANTITIES		
CUT (m ³)	FILL (m ³)	BALANCE (m ³)
-135,600	24,600	-111,000

LEGEND

- SITE BOUNDARY
- COMPOST FACILITY INFRASTRUCTURE
- ROAD
- POND
- LANDFILL CELLS
- POWER SUPPLY ROUTE
- BATTER TO EXISTING SITE SURFACE
- → LEACHATE AND STORMWATER PIPES
- LEACHATE AND STORMWATER RETURN PIPES

NOTES

1. GHD SCOPE OF WORKS IS LIMITED TO THE COMPOST FACILITY BOUNDARY
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3. CUT AND FILL QUANTITIES ARE BASED ON VOLUME CALCULATIONS BETWEEN THE EXISTING SURFACE AND THE COMPOST FACILITY PLAN (61-35738-SK012)



PRELIMINARY

rev	description	app'd	date
D	REVISED	DG	18.03.19
C	INITIAL ISSUE	DG	02.11.18

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 STANLEY ROAD COMPOSTING FACILITY
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Schedule 2: Works

At the time of assessment, Emissions and Discharges from the Works listed in Table 5 were considered in the determination of the risk and related Conditions for the Works Approval.

Table 4: Authorised Works

Works	Specifications/Drawings
Composting pad (Maturation Area)	Schedule 1
Compost facility slab	Schedule 1
Tunnel composting plant including waste reception and pre-treatment building and composting tunnels	Schedule 1
Biofilter and associated structures	Schedule 1
Waste Reception and Pre-Treatment Building	Schedule 1
Bunding and drainage infrastructure for outdoor areas, hydraulically separate between pasteurised and non-pasteurised source areas	Schedule 1
Leachate pond	Schedule 1
Stormwater pond	Schedule 1
Access and roadways	Schedule 1

Site layout

The infrastructure and equipment are set out on the Premises in accordance with the site layout specified on the Premises map in Schedule 1.