



Works Approval Number	W6292/2019/1
Works Approval Holder	Westpork Pty Ltd
ACN	009 148 789
Registered business address	Unit 1 / 7 Foundry Road MAYLANDS WA 6051
DWER File Number	DER2019/000480
Duration	20/12/2019 to 19/12/2022
Date of issue	20 December 2019
Premises	Westpork Pinjarra Piggery Operations 502 and 503 Sutters Lane WEST PINJARRA WA 6208 Legal description - Lot 502 on Deposited Plan 54832 Certificate of Title Volume 2677 Folio 599 and Lot 503 on Deposited Plan 54832 Certificate of Title Volume 2677 Folio 600

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 2: Intensive Piggery - premises on which pigs are fed, watered and housed in pens.	4,835 animals (equivalent to 8,222 SPU)

This Works Approval is granted to the Works Approval Holder, subject to the following Conditions, on 20 December 2019, by:

Manager, Process Industries

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

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 means the version of the standard, guideline, or code of practice in force at the time of granting of this licence and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the licence;
- 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 construct and/or install the infrastructure listed in Table 3 of Schedule 2:
 - (a) in accordance with the corresponding design and construction requirements; and
 - (b) at the corresponding infrastructure location
 as set out in Table 3 of Schedule 2.
2. The Works Approval Holder must not depart from the requirements specified in Table 3 of Schedule 2 except:
 - (a) where such a departure does not increase risks to public health, public amenity or the environment; and
 - (b) all other Conditions in this Works Approval are still satisfied.
3. The Works Approval Holder must undertake quality assurance including visual inspection and materials testing for the HDPE liners in accordance with the requirements specified in Table 1.

Table 1: Construction Quality Assurance Testing for HDPE liners

Item	Testing
Pre – Installation of liner	Tested to comply with GRI-GM13 Standard Specification.
	Visual inspection of every roll to ensure it is free of tears, punctures, abrasions, cracks, indentation, thin spots, or other faults in the material observed, validated and recorded by the consultant.
Installation of liner	Tested to be compliant with GRI-GM19a Standard Specification.

4. The Works Approval Holder must within 30 days of the completion of an item of infrastructure listed in Table 3 being constructed and/or installed:
 - (a) undertake an audit of their compliance with the requirements of Conditions 1 and 3; and
 - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
5. The Environmental Compliance Report required by Condition 4, must include as a minimum the following:
 - (a) certification by a Qualified Professional Engineer that the items of infrastructure or component(s) thereof, as specified in Condition 1 have been constructed in accordance with the relevant requirements specified in Condition 1 and HDPE liners have been tested in accordance with the relevant requirements in Condition 3;
 - (b) a description of, and explanation for, any departures in accordance with Condition 2;
 - (c) contain as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in Condition 1; and
 - (d) be signed by a person authorised to represent the Works Approval Holder and contains the printed name and position of that person.

Time limited operations

6. The Works Approval Holder may only commence time limited operations for an item of infrastructure identified in Table 3 where the Environmental Compliance Report as required by Conditions 4 and 5 has been submitted by the Works Approval Holder for that item of infrastructure.
7. The Works Approval Holder may conduct time limited operations for an item of infrastructure specified in Table 3 (as applicable):
 - (a) for a period not exceeding 180 calendar days from the day the Works Approval Holder meets the requirements of Condition 6 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*.

Record-keeping

8. 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 works conducted in accordance with Condition 1 of this Works Approval;
 - (b) any maintenance of infrastructure that is performed in the course of complying with Condition 1 of this Works Approval; and
 - (c) complaints received under Condition 10 of this Works Approval.
9. The Books specified under Condition 8 must:
 - (a) be legible;
 - (b) if amended, be amended in such a way that the original version(s) and subsequent amendments remain legible or are capable of retrieval;
 - (c) be retained by the Works Approval Holder for the duration of the Works Approval; and;
 - (d) be available to be produced to an Inspector or the CEO as required.
10. 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.

Definitions

In this Works Approval, the terms in Table 2 have the meanings defined.

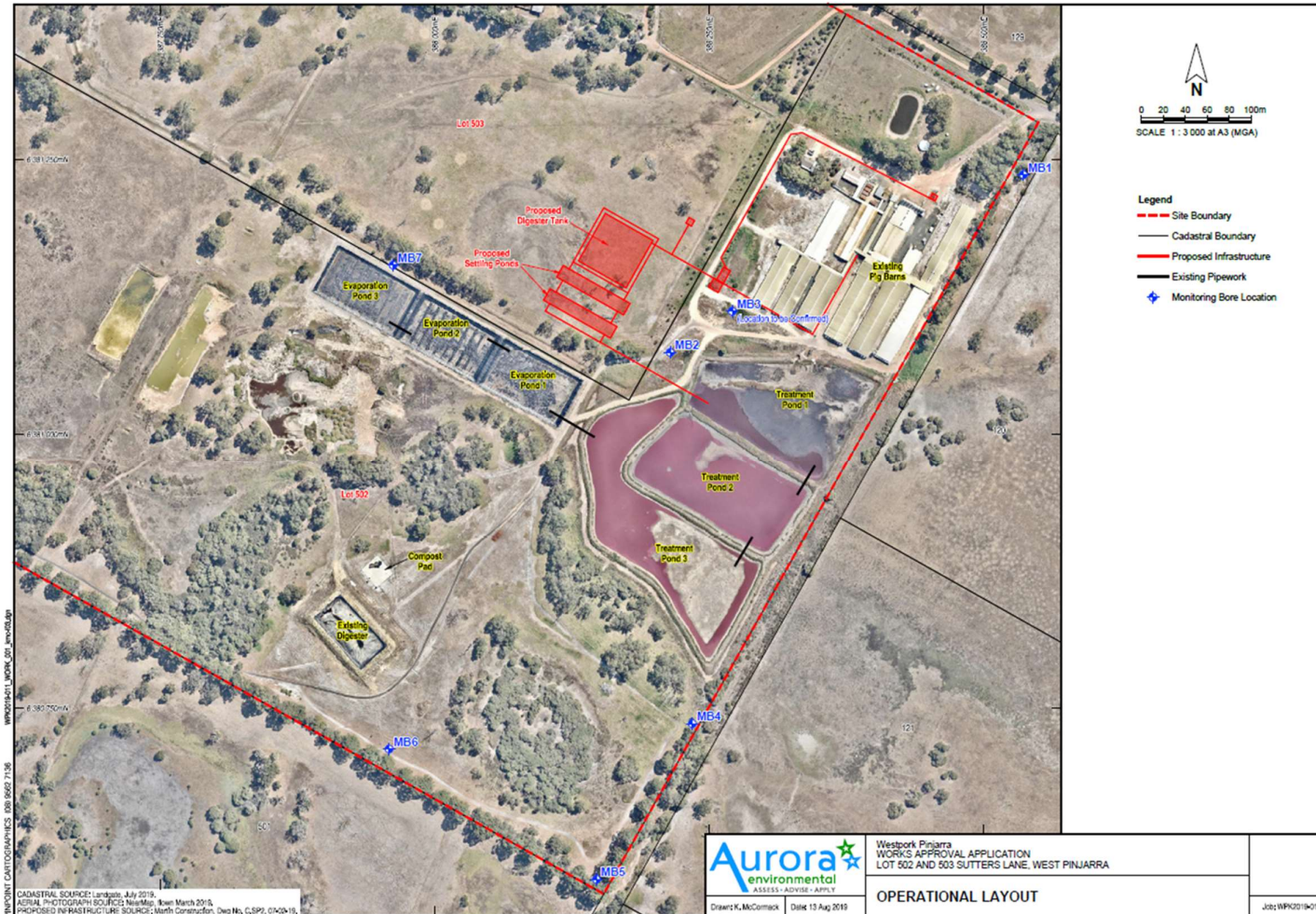
Table 2: Definitions

Term	Definition
AS 1289	Means <i>Australian Standard AS 1289: Methods for testing soils for engineered purposes</i>
AHD	Australian Height Datum
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.
Emerson Class Number	means the number determined using the Emerson Class test
Emerson Class Test	refers to the test to semi-quantitatively measure the clay in soils by determining the instability of soil structure when immersed in water as outlined in AS 1289.3.8.1.
Emission	has the same meaning given to that term under the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	means the <i>Environmental Protection Act 1986 (WA)</i> .
EP Regulations	means the <i>Environmental Protection Regulations 1987 (WA)</i> .
GRI-GM13 Standard Specification	refers to the Standard Specification for "Test Methods, Test Properties and Testing Frequency for High Density Polyethylene (HDPE) Smooth and Textured Geomembranes" SM as issued by the Geosynthetic Institute.
GRI-GM19a Standard Specification	refers to the Standard Specification for "Seam Strength and Related Properties of Thermally Bonded Homogenous Polyolefin Geomembranes/Barriers" SM as issued by the Geosynthetic Institute.
HDPE	means high density polyethylene
Liquid limit	means the water content at which the behaviour of a clayey soil changes from the plastic state to the liquid state tested as per AS 1289 3.1.2
Plasticity index	means the measure of the plasticity of a soil tested as per AS1289 3.3.1
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.
Qualified professional engineer	means a person who holds a tertiary academic qualification in engineering and has a minimum of three years of experience working in the area of civil/construction engineering.
SPU	refers to standard pig units, as defined in the <i>National Environmental Guidelines for Indoor Piggeries</i> , Australian Pork Limited, 2018
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.
Works	refers to the Works described in Table 3 of 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.
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.

Schedule 1: Maps

Premises map

The Premises are shown in the map below. The areas relating to the Works in this Works Approval are marked in red.



Schedule 2: Works

Table 3: Design and construction / installation requirements

Authorised Works	Requirements (design and construction)	Infrastructure Location
One covered anaerobic digester	<p>Constructed to be 50m by 50m with 4.5m sloped sides, constructed to meet a slope of 2.5:1.</p> <p>Constructed to have a minimum retention time of over 45 days and a capacity of 5,475 kL.</p> <p>The base of the covered anaerobic digester is at or above the natural ground level.</p> <p>The 2.5:1 sloped sides are to be sealed with 1.5 mm HDPE liner to the concrete base.</p> <p>Designed with a minimum 125mm thick reinforced concrete base that is free of cracks and meets a hydraulic conductivity of less than 1×10^{-9} m/s.</p> <p>The digester is to be capped with HDPE liner and fully sealed, with the cover also containing four 100mm emergency vents.</p> <p>The liner and cap are to be constructed to the requirements specified in Table 3 (this table) and tested in accordance with Condition 3.</p> <p>Four strategically placed and angled mixers are located within the digester to ensure efficient circulation of the effluent.</p> <p>Digestate discharged to one of two settlement trenches.</p>	Infrastructure/ equipment as shown in Schedule 1 'Premises Map'
HDPE smooth membrane liners for the sides of the covered anaerobic digester.	<p>The HDPE liner applied to the sides of the covered anaerobic digester must be constructed to achieve the following:</p> <ul style="list-style-type: none"> (a) manufactured specified thickness of at least 1.5mm; (b) HDPE membrane shall be uniform and free of pinholes, blisters, undispersed raw materials and contamination by foreign matter; (c) securely anchored to the sides and concrete base; and (d) material properties meeting the requirements of GRI-GM13. 	
HDPE smooth membrane liner for the cover of the covered anaerobic digester.	<p>The HDPE cover of the covered anaerobic digester must be constructed to achieve the following:</p> <ul style="list-style-type: none"> (a) manufactured specified thickness of at least 2mm; (b) HDPE membrane shall be uniform and free of pinholes, blisters, undispersed raw materials and contamination by foreign matter; (c) securely anchored; (d) fully sealed and gas tight; (e) material properties meeting the requirements of GRI-GM13; and (f) containing four 100mm emergency vents. 	
Two Settlement Trenches	<p>Two settlement trenches to be constructed to be 70m in length, 12m in width and 1.3m in depth and must allow for a 500 mm freeboard.</p> <p>The settlement trenches are to be constructed such that their base is at or above the natural ground level.</p> <p>The clay liner is to be at least 300mm thick and is to be constructed as per the requirements of specified in this table; and</p> <p>Wastewater from the settlement trenches is to be directed to the clay lined evaporation pond, which was formerly used as an anaerobic pond.</p>	
Lining of the Settlement Trenches	<p>Soils used for the lining of the settlement trenches must be free from plant roots and reactive, soluble and organic matter. Liner material must be tested to ensure it meets the following criteria:</p> <ul style="list-style-type: none"> (a) Percentage fines with acceptability of: <ul style="list-style-type: none"> i. more than 25 percent passing through a 75 micron sieve, tested using AS 1289 3.6.1; and ii more than 15 per cent passing through a 2 micron sieve, tested using AS 1289 3.6.3; (b) Liquid Limit with acceptability of 30 to 70 percent, tested using AS 1289 3.1.2; (c) Plasticity Index with acceptability of more than 15, tested using AS 1289 3.3.1; and (d) Emerson Class Number with acceptability of 5 to 6 tested using AS 1289 3.8.1. <p>The liner must be:</p> <ul style="list-style-type: none"> (a) a minimum of 300mm total thickness; (b) constructed and compacted in two layers of equal thickness (150mm per layer) to ensure adequate compaction is achieved and be moisture conditioned to achieve the maximum design soil density exceeding the 95% maximum (in place) dry density determined using AS 1289 5.2.1 and AS1289 5.4.1; and (c) homogeneous in nature and properties, with no sandy patches exceeding the liner specification or rocks retained on a 37.5mm sieve. 	
Biogas management system	<p>Includes an enclosed flare. The flare system must be constructed to ensure the following:</p> <ul style="list-style-type: none"> (a) The flame is enclosed; (b) The flare is constructed to the dimensions of 800mm x 6m; (c) The flare includes continuous temperature recording; and (d) The flare contains an automatic ignition system. (e) Includes a 85 KWh combined heat and power unit. (f) Includes a Hydrogen Sulphide scrubbing system which reduces the Hydrogen Sulphide content of the biogas by approximately 98 per cent. 	