



Works approval number	W6725/2022/1	
Works approval holder	Sangarra Southern Pty Ltd	
ACN	637 348 666	
Registered business address	33 Chapman Road GERALDTON WA 6530	
DWER file number	DER2022/000420	
Duration	10/05/2023	09/05/2026
Date of issue	10/05/2023	
Premises details	Sangarra Southern Piggery 1028 Yungup Road NAPIER WA 6330 Legal description – Lot 5856 on Plan 116112	

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed design capacity
Category 2: Intensive piggery: premises on which pigs are fed, watered and housed in pens.	Not more than 700 sows, being the equivalent herd size of 1,447 SPUs

This works approval is granted to the works approval holder, subject to the attached conditions, on 10 May 2023, by:

Caron Goodbourn
MANAGER, PROCESS INDUSTRIES
REGULATORY SERVICES

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

Works approval history

Date	Ref number	Summary of changes
10/05/2023	W6725/2022/1	Works approval – issued following planning approval being obtained

Interpretation

In this works approval:

- (a) the words 'including', 'includes' and 'include' in conditions mean 'including but not limited to', and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline or code of practice in this works approval:
 - (i) if dated, refers to that particular version; and
 - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

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

Works approval conditions

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

Construction phase

Infrastructure

1. The works approval holder must construct and/or establish the infrastructure listed in Table 1:
 - (a) in accordance with the corresponding design and construction requirements; and
 - (b) at the corresponding infrastructure location;as set out in that table.

Table 1: Design and construction requirements

	Infrastructure	Design and construction requirements	Infrastructure location
	Key piggery infrastructure		
1	Pig paddocks (ROP areas)	Prior to the commencement of each pig phase, must: <ul style="list-style-type: none">(a) construct a permanent stock-proof fence around the perimeter of the active pig paddock, as depicted in Schedule 1 map, which includes a minimum buffer of 100 m to all surface waters;(b) ensure all blue gum trees within the active sub-area of the pig paddock have been removed, including stumps to below ground level and covered with soil, to facilitate the seeding and mechanical harvesting	'ROP Area 1', 'ROP Area 2', 'ROP Area 3', as shown in map in Schedule 1

	Infrastructure	Design and construction requirements	Infrastructure location
		<p>of crops;</p> <p>(c) ensure the paddock is sufficiently sloped to facilitate drainage of surface water runoff to the terminal pond;</p> <p>(d) install sufficient rollover drains in each active pig paddock to intercept and direct surface runoff to a terminal pond;</p>	
2	Controlled drainage area (CDA)	<p>(a) Must comprise all paddocks used to run pigs (as delineated by the permanent stock-proof fence);</p> <p>(b) Must construct sufficient diversion banks or drains to prevent ingress of surface water from non-operational areas and to ensure all leachate and incident stormwater is contained within the CDA;</p>	
3	Terminal pond	<p>(a) Prior to the commencement of the first pig phase within a paddock, must construct a terminal pond for that paddock;</p> <p>(b) Pond must be sufficiently sized and located to catch at least the first 12 mm of runoff from the pig paddock;</p> <p>(c) Each pond must be lined with at least 300 mm of clay or other suitable compactable soil, or a synthetic liner, able to achieve a permeability of 1×10^{-9} m/s or less;</p> <p>(d) Permeability and compaction requirements for a clay or other suitable compactable soil lining system must be demonstrated by geotechnical testing conducted by a qualified professional engineer and in accordance with AS 1289;</p>	As per design requirement
4	Mortalities trench	<p>(a) Must excavate a trench at least 2 m wide and 1.5 m deep.</p>	'Mortalities trench', as shown in the map in Schedule 1

2. The works approval holder must within 28 calendar days of the infrastructure required by condition 1 being constructed:
 - (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.
3. The Environmental Compliance Report required by condition 2, must include as a minimum:
 - (a) certification that the infrastructure or components thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1 (including details on how the infrastructure complies with the requirements specified, where applicable);
 - (b) a detailed site plan for the infrastructure specified in condition 1;
 - (c) details that demonstrate how the bunding installed for the controlled drainage area is sufficient for preventing ingress of surface water;
 - (d) as-constructed details of all rollover drains and details that demonstrate how they are sufficiently sized and located;
 - (e) details that demonstrate how the constructed terminal pond is sufficiently sized and located; and
 - (f) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Time limited operational phase

Commencement and duration

4. The works approval holder may only commence time limited operations where the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder.
5. The works approval holder may conduct time limited operations:
 - (a) for a period not exceeding 180 calendar days from the date the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder; or
 - (b) until such time as a licence is granted in accordance with Division 3, Part V of the *Environmental Protection Act 1986*,whichever is sooner.

Infrastructure and equipment

6. During time limited operations, the works approval holder must ensure the premises infrastructure listed in Table 2 is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure requirements during time limited operations

	Site infrastructure	Operational requirement
1	ROP Area 1	<ol style="list-style-type: none">(a) Number of sows must not exceed 700;(b) Stocking density must not exceed 30 adult pigs per hectare;(c) Pigs must only be kept within the boundary of ROP Area 1;(d) Shelters, feeders, watering points and wallows must be moved at least once every 6 months;(e) Must maintain sufficient groundcover over the active pig paddock;(f) Must maintain clean dry bedding in all shelters;(g) Sites selected for wallows must have loam to clay soils or the base of the wallow is lined with compacted clay;(h) Must remediate or replace wallows and other wet areas if they become odorous, by ripping, re-filling and levelling;
2	Mortalities trench	<ol style="list-style-type: none">(a) Mortalities must be removed from the pig paddocks and placed in the trench within 24 hours of death;(b) Mortalities must be covered with at least 300 mm of soil immediately after being disposed within the trench.

7. During time limited operations, the works approval holder must undertake inspections of the scope and type and at the corresponding frequency specified in Table 3.
8. Where any inspection required by condition 7 identifies an appropriate level of environmental protection is not being maintained, the works approval holder must:
 - (a) take corrective action to mitigate adverse environmental consequences as soon as practicable; and
 - (b) maintain a written log of all inspections undertaken, with each inspection signed off by the person who conducted the inspection.

Table 3: Inspection of infrastructure requirements

Scope of inspection	Type of inspection	Frequency of inspection
Active pig paddocks, including rollover drains and wallows	Visual integrity (including signs of soil erosion and structural issues)	Weekly, whilst pigs are being held within the active pig paddock

Monitoring

General monitoring

9. The works approval holder must ensure that:
 - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
 - (c) all soil samples are collected in accordance with DPIRD guidelines for soil sampling;
 - (d) all soil samples are submitted to and tested by a laboratory with current ASPAC certification (or equivalent); and
 - (e) all water and groundwater samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.
10. The works approval holder must ensure that:
 - (a) annual monitoring is undertaken at least 9 months apart; and
 - (b) biannual monitoring is undertaken during the months of March and September each year.
11. The works approval holder must ensure that all monitoring equipment used on the premises to comply with conditions of this works approval is calibrated in accordance with the manufacturer's specifications.
12. The works approval holder must, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

Groundwater monitoring

13. Throughout the duration of this works approval, the works approval holder must monitor and record the results of ambient groundwater in accordance with the requirements of Table 4.

Table 4: Monitoring of groundwater requirements

Monitoring point and reference	Parameter	Unit	Averaging period	Monitoring frequency
Piezo 1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I Piezo 2A, 2B, 2C, 2D, 2E Piezo 3A, 3B, 3C, 3D, 3E, 3F	Standing water level ¹	m (AHD) m (BGL)	Spot sample (in-field)	Biannual
	pH ¹	-		
	Electrical conductivity @ 25°C ¹	µS/cm	Spot sample (laboratory determined)	
	Total nitrogen, Ammonia nitrogen	mg/L		
	Total phosphorus			
	Total dissolved solids			
	Biological oxygen demand			
	Na, K, Ca, Mg, Cl, SO ₄ , HCO ₃			

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

Soil monitoring

14. Throughout the duration of this works approval, the works approval holder must conduct soil testing in accordance with the requirements of Table 5.

Table 5: Soil testing requirements

Soil sampling locations	Soil profile	Parameter	Units	Frequency
At least one sample made up of at least 3 individual cores for each pig paddock ¹	0 – 10 cm; 10 – 20 cm; 20 – 30 cm;	pH	CaCl ₂	Annual ²
		Electrical conductivity	mS/cm	
		Moisture content	%	
		Total nitrogen, ammonium-nitrogen, nitrate-nitrogen	mg/kg	
		Total phosphorus		
		Phosphorus retention index (PRI)	-	
		Phosphorus buffering index (PBI)	-	
		Aluminium	CaCl ₂ extract	

Note 1: GPS coordinates must be recorded for each sampling location, to ensure subsequent sampling events are in the same location.

Note 2: Sampling within pig paddocks must occur before the commencement of each pig phase that is expected to exceed 24 months in length, and annual thereafter.

Monitoring of inputs and outputs

15. During time limited operations, the works approval holder must keep accurate records for the items specified in Table 6.

Table 6: Monitoring of inputs and outputs

Input / Output	Parameter	Units	Frequency
Animals received and dispatched at the premises	Animals	Number, specified for each pig class	Each truck arriving/leaving at the premises
Deceased animals			Monthly
Yield harvested	Harvested crops or fodder	tonnes per hectare (t/ha)	Each crop
Dry matter yield			
Nitrogen removal rate		kg/ha	
Phosphorus removal rate			

Complaints management

16. The works approval holder must investigate any 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.
17. Following receipt of a complaint directly from a complainant about any alleged emissions from the premises, the works approval holder must:
- respond to the complainant within 72 hours of receipt of the complaint; and
 - within 10 calendar days of receipt of the complaint, provide a summary of the outcomes of any investigation(s) conducted in response to the complaint, including any corrective and preventative action(s) taken in response to the complaint, unless such communication is not requested by the complainant.

Records and reporting (general)

18. The works approval holder must record the following information in relation to complaints received by the works approval holder (whether 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;
 - (d) the complete details of any activities being undertaken, where, and the weather and wind conditions at the time of the complaint;
 - (e) the complete details and dates of any investigation(s) conducted in response to the complaint;
 - (f) a summary of the findings of any investigation(s) conducted in response to the complaint, including details of the person(s) responsible for the investigation(s);
 - (g) a summary of any corrective and preventative action(s) taken in response to the complaint;
 - (h) a summary of the time taken to respond to the complaint; and
 - (i) a summary of all communications with the complainant.
19. 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;
 - (b) any maintenance of infrastructure that is performed in the course of complying with condition 6;
 - (c) results of groundwater monitoring required by condition 13;
 - (d) results of soil monitoring required by condition 14;
 - (e) records of inputs and outputs in accordance with condition 15; and
 - (f) records of complaints required by condition 18.
20. The books specified under condition 19 must:
 - (a) be legible;
 - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
 - (c) be retained by the works approval holder for the duration of the works approval; and
 - (d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
AHD	means Australian Height Datum
AS 1289	means the most recent version and the relevant parts of the Australian Standard AS 1289 <i>Methods of testing soils for engineering purposes</i>
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 Water quality – sampling – guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples, as amended from time to time
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 Water quality – sampling – guidance on sampling groundwater, as amended from time to time
averaging period	means the time over which a monitoring result is obtained
BGL	means below ground level
books	has the same meaning given to that term under the EP Act
CEO	means Chief Executive Officer of the Department 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
discharge	has the same meaning given to that term under the EP Act
emission	has the same meaning given to that term under the EP Act
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure has been constructed in accordance with the works approval
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	Environmental Protection Regulations 1987 (WA)
groundcover	means any material on or near the soil surface that provides protection for the soil against the erosive action of rainfall runoff or wind, including plant material (dead or alive), spent bedding, etc.
NATA	National Association of Testing Authorities, Australia
NATA accreditation	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis
pig class	refers to the different classes of pigs, depending on sex, age, weight and/or purpose within a piggery, including breeding males (boars) and females (sows, gilts) and progeny (suckers, weaners, growers, finishers and heavy finishers)
pig phase	means the portion of a land use rotation when pigs are using a particular land area
premises	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
spot sample	means a discrete sample representative at the time and place at which the sample is taken
Standard Pig Unit (SPU)	has the same meaning given to that term under the <i>National Environmental Guidelines for Rotational Outdoor Piggeries (NEGROP)</i> , Pork Australia Ltd, 2013, being a pig equivalent to a grower pig (average weight 40 kg) based on volatile solids production in manure
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, including the initial stocking of sheds and commissioning of the WTS (initial flushing of effluent to the anaerobic pond)
wallow	means a mud-filled depression in the ground that pigs can roll in
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

END OF CONDITIONS

Schedule 1: Maps

Premises map and map of monitoring locations

The boundary of the prescribed premises is shown in the map below (red line). The location of piezometers is shown by the yellow dots.

