Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6975/2024/1
Works approval holder	V & V Walsh Pty Ltd
ACN	100 834 455
Registered business address	6 Short Street FREMANTLE WA 6160
DWER file number	DER2024/000563
Duration	12/11/2025 to 11/11/2028
Date of issue	12/11/2025
Premises details	V & V Walsh Abattoir Lot 1 Rawling Road DAVENPORT WA 6230 Legal description - Part of Lot 1 on Diagram 12060 and Part of Lot 5 on Diagram 50137 As defined by the coordinates in Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed design capacity**
Category 15: Abattoir: Premises on which animals are slaughtered.	470,000 tonnes per annual period (hot standard carcase weight)
Category 16 Rendering operations: premises on which substances from animal material are processed or extracted.	10,000 tonnes per annual period
Category 55: Livestock saleyard or holding pend: premises on which live animals are held, pending heir sale, shipment or slaughter.	900,000 animals per period
Category 83: Fellmongering: premises on which animal skins or hides are dried, cured or stored.	900,000 skins or hides per annual period.

This works approval is granted to the works approval holder, subject to the attached conditions, on 12 November 2025, by:

Michael Greenslade
Digitally signed by Michael Greenslade
Date: 2025.11.12 12:06:53 +08'00'

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

Works approval history

Date	Reference number	Summary of changes
12/11/2025	W6975/2024/1	Works approval granted.

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 and equipment

1. The works approval holder must:

(a) construct and/or install the infrastructure and/or equipment;

(b) in accordance with the corresponding design and construction / installation requirements; and

(c) at the corresponding infrastructure location; and

(d) within the corresponding timeframe,

as set out in Table 1.

Table 1: Design and construction / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Wastewater treatment plant (WWTP)	The WWTP must be designed and installed to meet the following specifications: (a) Comprising of the following equipment: (i) A 2,400kL equalisation tank; (ii) A Dissolved Air Floatation (DAF) unit including a 50kL DAF Effluent tank; (iii) A 215kL anoxic treatment tank; (iv) A 2,200kL aerobic treatment tank; (v) A membrane bioreactor (MBR) package comprised of 2 x MBR units and a 100kL back-pulse tank; (vi) An ultraviolet disinfection unit; (vii) A hypochlorite disinfection unit; (viii) A 100kL treated water storage tank; (ix) A 100kL recycled water tank; (x) A 100kL recycled activated sludge tank; (xi) A 475kL sludge holding tank; and (xii) Centrifugal sludge dewatering system and 25kL centrate tank. (b) The equalisation tank, DAF package, DAF effluent tank, sludge holding tank, centrate tank and anoxic treatment tank shall be enclosed with ventilation discharge points directed to a four stage odour control unit comprising of: (i) acid chemical scrubbing; (ii) alkali chemical scrubbing; (iii) biofilter; and; (iv) activated carbon filter. (c) The equalisation tank shall be fitted with systems to	Figure 1: Map of the boundary of the prescribed premises Figure 2: Layout of the proposed WWTP. Figure 3: Monitoring locations.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		ensure wastewater is mixed and aerated. (d) The anoxic tank shall be equipped with a submersible mixer capable of keeping solids in suspension and ensuring homogenous mixing occurs. (e) The aerobic reactor tanks shall be divided by baffles into three zones with blowers installed at the bottom of the tank capable of aerating wastewater. (f) Must be able to receive and treat an average inflow of not more than 1,686 m^3/day. (g) Must be designed and constructed to achieve the output standards specified in Schedule 2: Table 6. (h) Must be able to achieve the output standards specified in Schedule 2, Table 6 when the WWTP is operating under all normal operating scenarios including outside of the premises normal business hours. (i) Flow meters are required to be installed on the inlet and outlet side of the WWTP to record both inflows and outflows from the WWTP. (j) Sampling point is required to be installed on the outlet of the treated effluent tank to enable collection of a water quality sample for laboratory analysis. (k) The sampling point specified in part (j) above shall be installed with instrumentation for continuously monitoring pH, electrical conductivity (µS/cm), turbidity (NTU) and residual free chlorine (mg/L). (l) Incorporate an alarm system of warning beacons, as well as audible and visual pump fault alarms, which will activate in the event of: (i) system faults; (ii) low and high tank levels; and (iii) tank overflows.	
2.	Reverse Osmosis Plant	The Reverse Osmosis Plant must be designed and installed to meet the following specifications: (a) Must be designed and constructed with capacity to treat an average of not more than 1,506 m^3/day of wastewater from the WWTP; (b) Must incorporate an alarm system of warning beacons, as well as audible and visual pump fault alarms, which will activate in the event of: (i) system faults; (ii) high tank levels; and (iii) tank overflows. (c) Flow meters are required to be installed on the inlet and outlet side of the RO Plant to record: (i) inflows to the RO Plant; and	Figure 2: Layout of the proposed WWTP. Figure 3: Monitoring locations.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		(ii) outflows of permeate and RO brine from the RO Plant. (d) Sampling points are required to be installed at the following locations : (i) on the outlet of the recycled water tank to enable collection of a water quality sample of permeate for laboratory analysis; and (ii) on the outlet of the RO Plant to enable collection of a water quality sample of RO Brine for laboratory analysis. (e) The sampling points specified in part (d) above shall be installed with instrumentation for continuously monitoring pH, electrical conductivity (µS/cm), turbidity (NTU) and residual free chlorine (mg/L).	
3.	General requirements (WWTP and Reverse Osmosis Plant)	(a) The premises shall be constructed to collect and contain potential contamination from above ground water storage and treatment infrastructure prior to it being directed to the WWTP for treatment. (b) All wastewater storage and treatment tanks, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks and defects. (c) All chemicals used for dosing during the wastewater treatment process shall be stored in an impervious bund capable of storing 110% of the largest vessel / container within the bund and spills coming from the height of the tank.	Figure 1: Map of the boundary of the prescribed premises Figure 2: Layout of the proposed WWTP.
4.	Sludge handling	Sludge dewatering units and sludge holding bins must be installed within an impervious bunded area to capture any spills and ensure all wastewater collected in the bunded is transferred back into the WWTP.	Figure 1: Map of the boundary of the prescribed premises

Acid sulfate soils management

2. The works approval holder must ensure stockpiling, and treatment of ASS or PASS soil does not occur within the Premises.

3. The works approval holder must ensure that no dewatering water is discharged onto or from the Premises.

4. The works approval holder must ensure that dewatering water, ASS or PASS is disposed of to an appropriately authorised facility.

5. The works approval holder must ensure that treated ASS or PASS is only re-used onsite after validation sampling confirms that neutralisation has been achieved.

Compliance reporting

6. The works approval holder must within 30 calendar days of all items of infrastructure or equipment required by condition 1 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition(s) 1; and

(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

7. The Environmental Compliance Report required by condition 6, must include as a minimum the following:

(a) certification by a suitably qualified engineer that the infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1;

(c) a summary of the ASS / PASS and/or dewatering management measures undertaken at the premises during construction including results of any monitoring undertaken to confirm neutralisation of ASS or PASS;

(d) receipts or other acceptance records from the relevant appropriately authorised facility referenced in condition 4, including details of the total amount of dewatering water, ASS or PASS material taken to the chosen facility; and

(e) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Environmental commissioning phase

Commencement and duration– Environmental commissioning

8. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in condition 9 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 6 of this works approval.

9. The works approval holder must ensure that any environmental commissioning activities undertaken for an item of infrastructure specified in Table 2 is only carried out:

(a) in accordance with the corresponding commissioning requirements; and

(b) for the corresponding authorised commissioning duration.

As specified in Table 2.

Table 2: Environmental commissioning requirements.

Infrastructure	Commissioning requirement	Authorised commissioning duration
WWTP and RO Plant	(a) The average volume of wastewater directed to the wastewater treatment plant shall be no more than 1,012m^3/day (calculated over each calendar month); (b) Treated wastewater from the Treated Effluent Tank must be directed to Pond 0, Pond 1 or Pond 2 (shown in Schedule 3: Figure 5); (c) Aerators and mixers shall be operated and maintained in accordance with manufacturer specifications; (d) The odour control unit shall be operated at all times; (e) Low and high level sensors within each tank must be operational and maintained to enable the wastewater level within each tank to be determined; (f) All visible and audible alarms must be maintained in working order; (g) Dewatered sludge stored in holding bins shall be stored on the premises for a maximum of 7 days once dewatered; (h) When not being filled, sludge holding bins containing sludge shall be covered at all times; (i) All wastewater from the RO Plant, including permeate and brine, shall be directed to Pond 0, Pond 1 or Pond 2 (shown in Schedule 3: Figure 5); and (j) Permeate and brine shall be discharged to Pond 0, Pond 1 or Pond 2 in such a way that promotes uniform blending of these process effluent/waste streams.	For a period not exceeding 120 calendar days in aggregate

Monitoring - Environmental commissioning

10. The works approval holder must ensure that:

(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1

(b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10; and

(c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless otherwise specified.

11. The works approval holder must ensure that:

(a) weekly monitoring is undertaken at least 4 days apart; and

(b) monthly monitoring is undertaken such that there are at least 15 days in between the days on which samples are taken in successive months.

12. The works approval holder must ensure that all monitoring equipment used on the premises to comply with the conditions of this works approval is calibrated in accordance with the manufacturer's specifications.

13. 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.

14. The works approval holder must monitor emissions during environmental commissioning in accordance with Table 3 at the monitoring locations specified in Schedule 3: Figure 4.

Table 3: Emissions and discharge monitoring during environmental commissioning and time limited operations

Monitoring location	Parameter	Frequency	Averaging Period	Unit
Input into WWTP (M1) Input to RO Plant (M2)	Volumetric flow rate	Continuous	Daily	m^3/day
Treated Effluent Tank outflow to wastewater treatment ponds (M3) Recycled Water Tank outflow (RO permeate) to wastewater treatment ponds (M4) RO unit outflow (brine) to wastewater	Volumetric flow rate	Continuous	Daily	m^3/day
	pH[1]	Continuous	Spot sample	pH units
	Turbidity[1]			NTU
	Conductivity[1]			µS/cm
	Residual Chlorine[1]			mg/L
	Total suspended solids	Weekly		mg/L
	Biological Oxygen Demand (5-day)			
	Total nitrogen			
	Total phosphorus			
	Clostridia, *E. coli*			cfu/100mL

Monitoring location	Parameter	Frequency	Averaging Period	Unit
treatment ponds (M5)	Coliphages			pfu/100mL
	Chemical Oxygen Demand	Monthly		mg/L
	Total inorganic nitrogen			
	Nitrite and nitrate nitrogen			
	Ammonium-nitrogen			
	Reactive phosphorus			
	Oil and grease			
	Major ions: bicarbonate, calcium, chloride, magnesium, potassium, sodium, sulfate, total dissolved solids			
	Metals and metalloids: arsenic, aluminium, boron, cadmium, chromium, copper, lead, mercury, zinc			

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

15. The works approval holder must record the results of all monitoring activity required by condition 14.

Compliance reporting - Environmental commissioning

16. The works approval holder must submit to the CEO an Environmental Commissioning Report within 30 calendar days of the completion date of environmental commissioning for the infrastructure specified in Table 1.

17. The works approval holder must ensure the Environmental Commissioning Report required by condition 16 of this works approval includes the following:

(a) a summary of the environmental commissioning activities undertaken, including timeframes;

(b) the monitoring recorded in accordance with condition 15;

(c) a summary of the environmental performance of each item of infrastructure or equipment as constructed or installed (as applicable);

(d) a review of the works approval holder's performance and compliance against the conditions of this works approval; and

(e) where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

Time limited operations phase

Commencement and duration – Time limited operations

18. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 where the Environmental Commissioning Report for that infrastructure as required by condition 16 has been submitted by the works approval holder

19. The works approval holder may conduct time limited operations for the infrastructure specified in condition 1:

(a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 18 for that 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*, if one is granted before the end of the period specified in condition 19(a).

Infrastructure requirements – Time limited operations

20. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 4 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 4.

Table 4: Infrastructure and equipment requirements during time limited operations.

Infrastructure	Operational requirement
WWTP	(a) The average volume of wastewater directed to the wastewater treatment plant shall be no more than 1,012m^3/day (calculated over each calendar month); (b) Treated wastewater from the Treated Effluent Tank must be directed to Ponds 2, 3, 4, 5, 6 and/or 7 (shown in Schedule 3: Figure 5); (c) Aerators and mixers shall be operated and maintained in accordance with manufacturer specifications; (d) The odour control unit shall be operated at all times and maintained in working order; (e) Low and high level sensors within each tank must be operational and maintained to enable the wastewater level within each tank to be determined; (f) All visible and audible alarms must be maintained in working order; (g) Dewatered sludge stored in holding bins shall be stored on the premises for a maximum of 7 days once dewatered; and (h) When not being filled, sludge holding bins containing sludge shall be covered at all times.
RO Plant	(a) All wastewater from the RO Plant, including permeate and brine, shall be directed to Ponds 2, 3, 4, 5, 6 and/or Pond 7 (shown in Schedule 3: Figure 5); and (b) Permeate and brine shall be discharged to Ponds 2, 3, 4, 5, 6 and/or Pond 7 in such a way that promotes uniform blending of these process effluent/waste streams.

Monitoring – Time limited operations

21. The works approval holder must ensure that:

(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1

(b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10; and

(c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless otherwise specified.

22. The works approval holder must ensure that:

(a) weekly monitoring is undertaken at least 4 days apart; and

(b) monthly monitoring is undertaken such that there are at least 15 days in between the days on which samples are taken in successive months.

23. The works approval holder must ensure that all monitoring equipment used on the premises to comply with the conditions of this works approval is calibrated in accordance with the manufacturer's specifications.

24. 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.

25. The works approval holder must monitor emissions during time limited operations in accordance with Table 3 at the monitoring locations specified in Schedule 3: Figure 4.

26. The works approval holder must record the results of all monitoring activity required by condition 25.

Compliance reporting– Time limited operations

27. The works approval holder must submit to the CEO a report on the time limited operations within 60 calendar days of the completion date of time limited operations or 60 calendar days before the expiration date of the works approval, whichever is the sooner.

28. The works approval holder must ensure the report required by condition 27 includes the following:

(a) a summary of time limited operations, including timeframes and amount of material processed through the WWTP;

(b) the results of monitoring recorded in accordance with condition(s) 14 and 26;

(c) a review of performance and compliance against the conditions of the works approval and the Environmental Commissioning Report, which at minimum includes a comparison of any monitoring results against design specifications listed in Schedule 2, Table 6;

(d) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures; and

(e) a summary of any complaints received during time limited operations.

Records and reporting (general)

29. 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.

30. 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 9;

(c) monitoring programmes undertaken in accordance with condition 14 and 25; and

(d) complaints received under condition 29.

31. The books specified under condition 30 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 5 have the meanings defined.

Table 5: Definitions

Term	Definition
acid sulfate soils	Includes both sulfidic soil materials as potential acid sulfate soils and sulfuric soil materials as actual acid sulfate soils
annual period	a 12 month period commencing from 1 January until 31 December of the same year.
appropriately authorised facility	means a facility which holds approval under the EP Act for the acceptance of the relevant waste type as defined in the *Landfill Waste Classification and Waste Definitions 1996*
ASS	acid sulfate soils
AS/NZS 5667.1	means the current version of Australian / New Zealand Standard AS/NZS 5667.1 *Water Quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples*
AS/NZS 5667.10	means the current version of Australian / New Zealand Standard AS/NZS 5667.10 *Water Quality – Sampling, Part 10: Guidance on sampling of waste waters*
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 *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
BOD	biochemical oxygen demand
brine	means the waste stream generated by the reverse osmosis plant that contains concentrated salts and other impurities
cfu/100mL	colony forming units per 100 millilitres
COD	chemical oxygen demand
DAF	Dissolved Air Floatation
Department	means the department 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 EP Act.
discharge	has the same meaning given to that term under the EP Act.

Term	Definition
emission	has the same meaning given to that term under the EP Act.
environmental commissioning	means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications.
Environmental Commissioning Report	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
mg/L	milligrams per litre
µS/cm	milliSiemens per centimetre
NATA	means the (Australian) National Association of Testing Authorities.
neutralisation	Is the process of soil treatment meeting the following performance criteria: a) the neutralising capacity of the treated soil must exceed the existing plus potential acidity of the soil (e.g. pH_{fox} must be >5); b) the neutralising material has been thoroughly mixed with the soil; c) soil pH must be in the range of 6.0 to 8.5; and d) excess neutralising agent must remain within the soil until all acid generation reactions are complete and the soil has no further capacity to generate acidity.
NTU	Nephelometric Turbidity unit
PASS	Potential acid sulfate soils
permeate	means the waste stream generated by the reverse osmosis plant that has been successfully filtered in through the semi-permeable membrane
pfu/100mL	plaque forming units per 100 millilitres
potential acid sulfate soils	are soils or sediments which contain iron sulfides and/or other sulfidic minerals that have not been oxidised. The field pH of these soils in their undisturbed state is more than pH 4 and is commonly neutral to alkaline (pH 7 to pH 9). These soils or sediments are invariably saturated with water in their natural state. The waterlogged layer may be peat, clay, loam, silt, or sand and is usually dark grey and soft but

Term	Definition
	may also be dark brown, or medium to pale grey to white.
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
premises normal business hours	means the hours between 7am and 7pm, Monday to Friday (excluding public holidays).
prescribed premises	has the same meaning given to that term under the EP Act.
RAS	return activated sludge
suitably qualified engineer	means a person who: (a) holds a tertiary academic qualification in civil engineering; (b) has a minimum of five years' experience working in the area / field of design engineering; and (c) is employed by an independent third party external to the works approval holder's business.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
waste	has the same meaning given to that term under the EP Act.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

Figure 1: Map of the boundary of the prescribed premises

Schedule 2: Design criteria

Table 6: Wastewater design specifications.

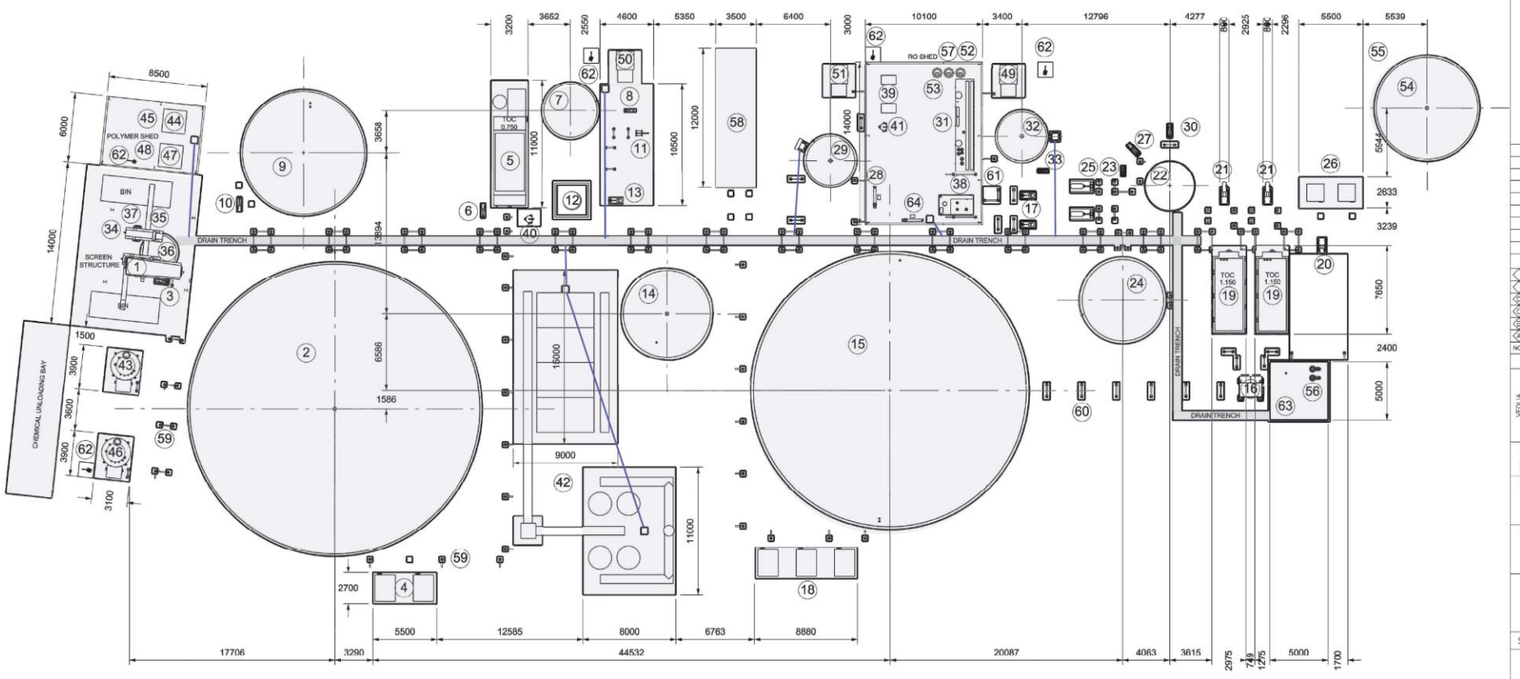
Parameters	Units	Wastewater design specification
Average daily flow rate	m^3/day	1,686
pH	-	6.5 - 8.5
Total Nitrogen	mg/L	< 5
NO_x as Nitrogen	Mg/L	< 1
Ammonium-nitrogen	mg/L	< 1
Total Inorganic Nitrogen	mg/L	<1
Total Phosphorus	mg/L	< 1
Reactive Phosphorus	mg/L	< 1
BOD	mg/L	< 10
COD	mg/L	< 100
Total Suspended Solids	mg/L	< 10
Fats, oils and grease	mg/L	< 1
E. coli	cfu/100mL	<1
Major ions		
Bicarbonate	mg/L as CaCO3	713
Calcium	mg/L	60.2
Chloride	mg/L	353
Magnesium	mg/L	20.2
Potassium	mg/L	71.5
Sodium	mg/L	411
Sulfate	mg/L	1.2
Total Dissolved Solids	mg/L	1,788
Metals and Metalloids		
Aluminium	mg/L	0.05
Arsenic	mg/L	0.0024
Barium	mg/L	0.1680
Boron	mg/L	0.0984
Cadmium	mg/L	0.0002
Chromium	mg/L	0.0149
Copper	mg/L	0.089
Iron	mg/L	0.05
Lead	mg/L	0.0018
Manganese	mg/L	0.1171
Mercury	mg/L	0.0001
Strontium	mg/L	0.1848
Zinc	mg/L	0.3384

Schedule 3: Plans and diagrams

ITEM	TAG	DESCRIPTION
1	RS01-01	ROTARY SCREEN
2	TL10-01	EQUALISATION TANK
3	PC10-01	DAF FEED PUMP
4	BV10-01/2	BLOWERS
5	RF15-01	DAF UNIT
6	PC15-03	DAF SLUDGE PUMP
7	TL15-01	DAF EFFLUENT TANK
8	PC15-05	HEAT EXCHANGER FEED PUMP
9	TS50-01	SLUDGE HOLDING TANK
10	PC15-10	CENTRIFUGE FEED PUMP
11	EH20-01	HEAT EXCHANGER
12	EL20-01	COOLING TOWER
13	PC20-01	COOLING PUMPS
14	TL25-01	ANOXIC TANK
15	TL25-02	AEROBIC TANK
16	TL25-04	SPLITTER BOX
17	PC25-01/2	NITRATE RECIRCULATION PUMPS
18	BV25-01/2/3	BLOWERS
19	TL30-01/31-01	MEMBRANE TANKS
20	PC30-01	MBR DRAIN PUMP
21	PV30-01/31-01	MBR PERMEATE/BACKPULSE PUMPS
22	TL34-01	BACKPULSE TANK
23	PC34-01	POLYMER SERVICE WATER PUMP
24	TL35-01	RAS TANK
25	PC35-01/2	RAS PUMPS
26	BV36-01/2	MEMBRANE BLOWERS
27	PC40-01	UV FEED PUMP
28	GN40-01	UV UNIT
29	TL40-01	TREATED WATER TANK
30	PC40-03	RO BOOSTER PUMP
31	ZP45-01	RO UNIT
32	TL50-01	RECYCLED WATER TANK
33	PC50-03	SERVICE WATER PUMP
34	RN55-01	CENTRIFUGE
35	NS55-01	SCREW CONVEYOR
36	TL55-01	CENTRATE TANK
37	PC55-01	CENTRATE PUMP
38	TL96-01	CIP UNIT
39	CA65-01/2	AIR COMPRESSORS
40	TG65-01	AIR RECEIVER
41	TG65-02	AIR RECEIVER
42	SKD-8100	ODOUR UNIT
43	SKD-7001	CAUSTIC SODA TANK AND PUMP
44	SKD-7201	DAF POLYMER PREP UNIT
45	SKD-7202	DAF POLYMER PUMP SKID
46	SKD-7301	PACI TANK AND PUMP
47	SKD-7401	CENTRIFGE POLYMER PREP UNIT
48	SKD-7402	CENTRIFGE POLYMER PUMP SKID
49	SKD-7601	SODIUM HYPO IBC AND PUMPS
50	SKD-7701	PHOSPHORIC IBC AND PUMP
51	SKD-7801	CITRIC ACID IBC AND PUMP
52	SKD-7901	SMBS DRUM AND PUMP
53	SKD-8001	ANTISCALANT DRUM AND PUMP
54	TL91-01	FIRE TANK (BY OTHERS)
55	PC91-01/2	FIRE WATER PUMPS (BY OTHERS)
56	PC99-01/2	DRAIN PUMPS
57	SKD-8101	DBNPA DRUM AND PUMP
58	MCC-01	SWITCHROOM (BY OTHERS)
59	PS-1	PIPE SUPPORT PADS
60	PS-2	PIPE SUPPORT PADS
61	PS-3	PIPE SUPPORT PADS
62	SS	SAFETY SHOWERS
63	TL99-01	DRAIN SUMP
64	GN50-01	UV UNIT

NOTE:
1) ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2) PLINTHS 150mm ABOVE FINISHED GROUND LEVEL U.N.O.
3) PLINTH LEVELS NOTED FOR ITEMS 5 AND 9.

UNDERGROUND DRAIN LINES



REF DWG NO.	REF DRAWING TITLE
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REFERENCE DRAWING	

NO.	DESCRIPTION	BY	CHKD	APPR	DATE
A	ISSUE FOR TENDER	PK	RM	AGL	3/12/24
B	ISSUE FOR REVIEW	PK	RM	AGL	7/11/24
C	ISSUE FOR REVIEW	PK	RM	AGL	5/11/24
D	ISSUE FOR REVIEW	PK	RM	AGL	23/10/24

REVISIONS

VEOLIA	BY	DATE	CLIENT	BY	DATE
APPR	AGL	2/12/24	APPR		
CHKD	RM	2/12/24	APPR		
DRAWN	PK	2/12/24			
DSGND	PK	2/12/24			

PROJECT TITLE
WWTP

FOR
V & V WALSH

VEOLIA

SITE : WA

TITLE EQUIPMENT LAYOUT

SCALE : 1:200 PROJECT NO. : 704320202

DRAWING NO. 704320202-00-MAE-001 SHEET 1 OF 2

REVISION D

A1

FILENAME : 704320202-00MAE001D.dwg

Figure 2: Layout of the proposed WWTP.

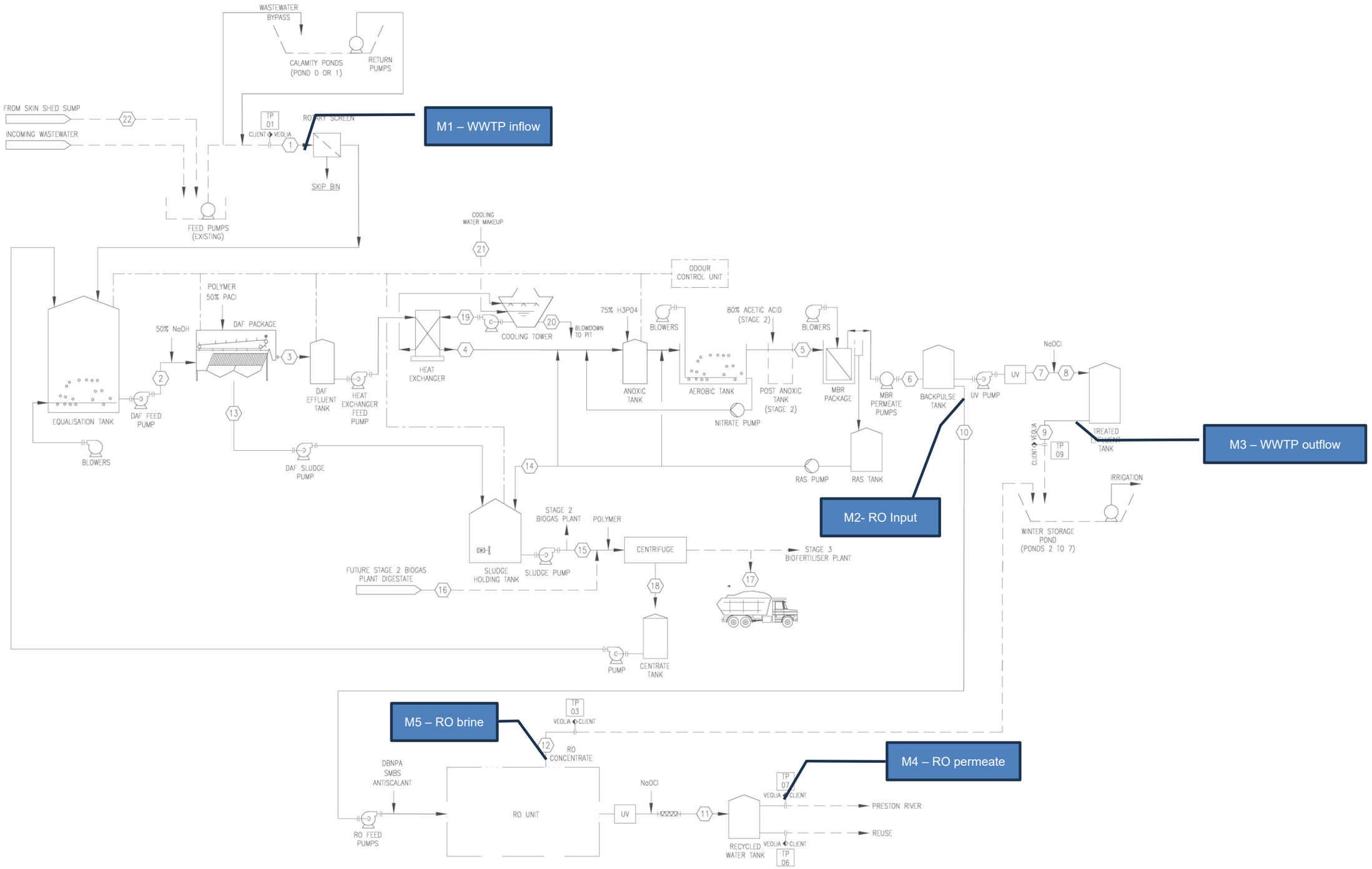

Figure 3: Monitoring locations.

W6975/2024/1

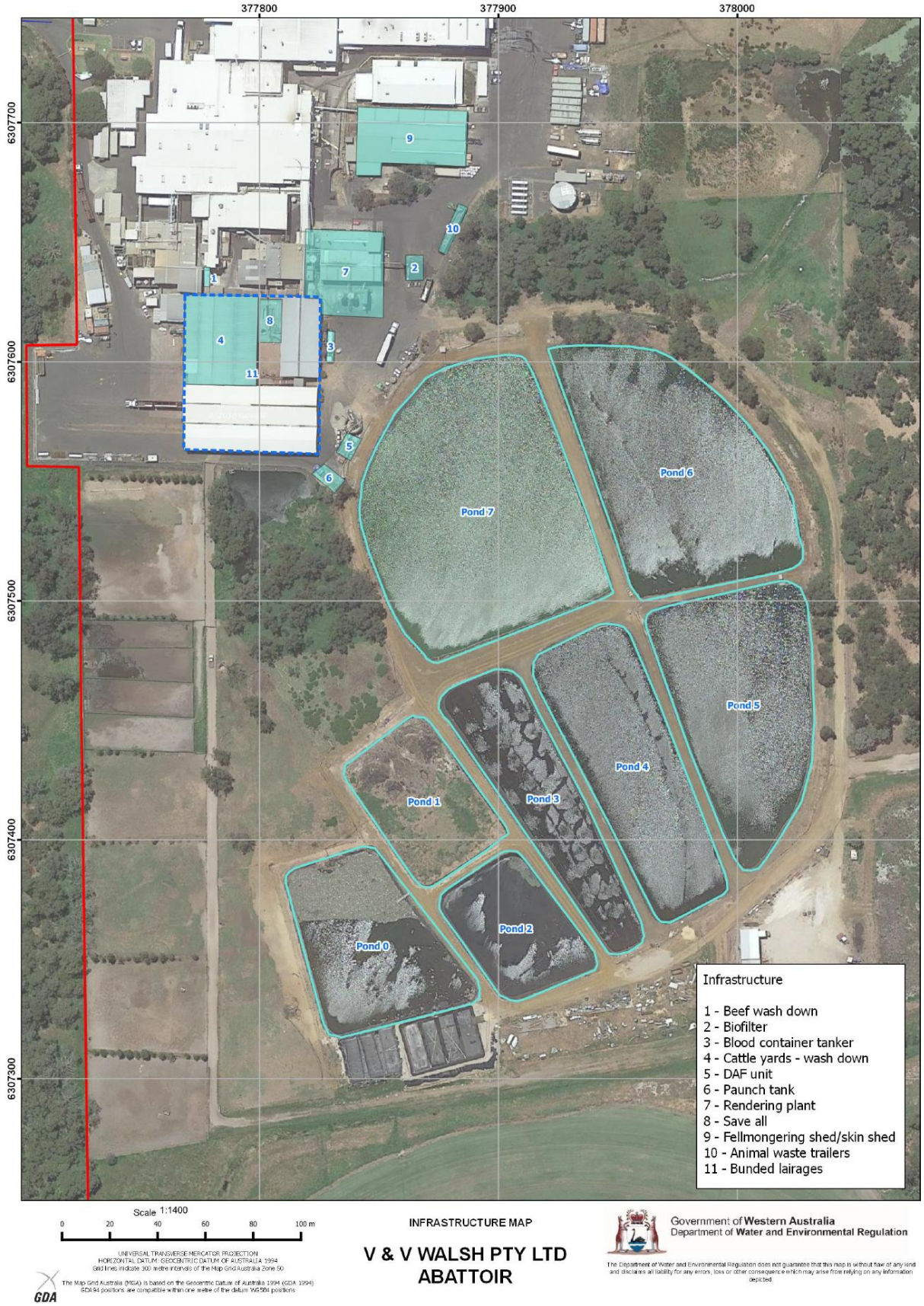

Figure 4: Location of existing wastewater treatment ponds.