



<b>Licence number</b>	L7719/2001/8
<b>Licence holder</b>	Ausvinex Pty Ltd
<b>ACN</b>	6026690876
<b>Registered business address</b>	118 Mallokup Road, CAPEL WA 6271
<b>DWER file number</b>	DER2014/003052-1
<b>Duration</b>	19/12/2023 to 18/12/2043
<b>Date of issue</b>	20 November 2023
<b>Premises details</b>	Cale Vale Wines 118 Mallokup Road CAPEL WA 6271  Legal description - Lots 5, 13 and 14 on Deposited Plan 232930 As defined by the Premises map in Schedule 1

<b>Beverage manufacturing: premises on which an alcoholic beverage is manufactured and from which liquid waste</b>	<b>Assessed production capacity</b>
Category 25: Alcoholic beverage manufacturing: premises on which an alcoholic beverage is manufactured and from which liquid waste is or is to be discharged onto land or into waters.	450 kilolitres per annual period (wine produced)

This licence is granted to the licence holder, subject to the attached conditions, on 20 November 2023, by:

**Manager, Process Industries**

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

## Licence history

Date	Reference number	Summary of changes
30/12/2002	L7719/1	Original licence issue.
11/03/2003	L7719/1	Licence amendment to include additional irrigation areas.
22/12/2003	L7719/2	Licence reissue.
17/12/2004	L7719/3	Licence reissue. Issued for 3 years.
14/12/2007	L7719/2001/4	Licence reissue. Conditions added to require submission of a NIMP and install a flow meter on irrigation.
18/12/2008	L7719/2001/5	Licence reissue.
15/12/2011	L7719/2001/6	Licence reissue.
10/01/2013	L7719/201/6	Licence amendment to distinguish the partitioning of the storage pond into a HDPE-lined aeration pond and a final treated storage pond.
18/12/2014	L7719/2001/7	Licence reissue.
29/04/2016	L7719/2001/7	Licence amended to extend expiry date.
09/06/2022	L7719/2001/7	Transfer of licence to Ausvinex Pty Ltd
20/07/2023	L7719/2001/8	Licence reissued for 20 years. Includes partial review and licence reformat.

## Interpretation

In this licence:

- (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 licence:
  - (i) if dated, refers to that particular version; and
  - (ii) if not dated, refers to the latest version and therefore may be subject to
- (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 licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

## Licence conditions

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

### Infrastructure and equipment

- The licence holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

**Table 1: Infrastructure and equipment requirements**

Site infrastructure and equipment	Operational requirement	Infrastructure location- Schedule 1
<b>Winery production</b>		
1 Enclosed winery building consisting of: i. Hopper and crusher/de-stemmer ii. 47 fermentation tanks with a combined volume of 806 920 litres iii. 108 storage tanks with a combined volume of 4,598,600 kL iv. Concrete floor that drains to internal grated floor drains to the wastewater treatment plant (WWTP) Outside concrete hardstand that drains to the WWTP.	(a) All wastewater collected from internal and external hardstand floor drains must be directed to the two collection sumps for wastewater treatment.  (b) Uncontaminated stormwater must be directed away from all wastewater collection drains and the wastewater treatment plant.  (c) Wastewater drainage system (including any sumps, pipelines, and drainage channels) and concrete flooring or hardstands must be maintained to prevent wastewater or product leaks to underlying soils.	Labelled in Figure 2 as: Winery waste storage area  Labelled in Figure 3 as: Sump 1 Sump 2
2 Bottling building consisting of: i. Wine bottling infrastructure ii. Concrete floor that drains to internal floor drains that drain via an underground pipeline to the wastewater treatment plant iii. Underground wine pipeline transferring wine from the winery building to the bottling building		Labelled in Figure 2 as: Bottling  Bottling wastewater pipeline  Winery pipeline
<b>Wastewater treatment plant (WWTP)</b>		
3 Winery wastewater treatment plant consisting of:	(a) All wastewater generated from the winery and bottling building must be directed to the WWTP.	Labelled in Figure 2 as: Overflow

Site infrastructure and equipment		Operational requirement	Infrastructure location-Schedule 1
	<ul style="list-style-type: none"> <li>i. 2 x concrete collection sump</li> <li>ii. 5mm aperture solids separator (rotary screen)</li> <li>iii. 9.6 kL baffle wedge (sedimentation tank)</li> <li>iv. 3x 10 kL impervious concrete settlement tanks</li> <li>v. 47 kL aeration tank with pH adjustment</li> <li>vi. 47 kL post impervious concrete settling tank;</li> <li>vii. 2 x 90 kL impervious concrete aerated holding tank with pH adjustment; and</li> <li>viii. A wastewater overflow capture basin (excavated in-situ soil) positioned between the WWTP and the Capel River</li> </ul>	<ul style="list-style-type: none"> <li>(b) Not more than 30,000 liters in any 24-hour period may be directed to the WWTP.</li> <li>(c) The overflow basin must be maintained to be capable of capturing and containing any wastewater spills from the WWTP.</li> <li>(d) Blower(s) must be maintained in working condition to aerate wastewater within the aeration and irrigation holding tanks.</li> <li>(e) Accumulated sludge and sediments must be removed from all wastewater sumps and holding tanks at least once every annual period for off-site disposal to a facility licensed to accept the waste.</li> <li>(f) The WWTP must be visually inspected for spills, leaks and overtopping once a day when operational, and the inspection recorded within a logbook including the inspection date, inspector's signature, and recorded findings.</li> </ul>	basin WWTP Labelled in Figure 3 as: Sump 1 Sump2 Baffle wedge, screen and sedimentation tank Solids tank on concrete pad pH adjustment 10 kL Settlement tank1, 2, 3 47 kL Aeration tank 47 kL Post settlement tank 90 kL Aerated irrigation tank 1, 2
4	Treated wastewater transfer pipeline (100mm poly pipe)	<ul style="list-style-type: none"> <li>(a) Treated wastewater from the WWTP must be directed to the irrigation holding pond via the wastewater transfer pipeline.</li> <li>(b) The entire length of the wastewater transfer pipeline must be visually inspected for leaks and or damage monthly.</li> <li>(c) The inspection date, the name and signature of the inspector and their findings must be recorded in a logbook.</li> </ul>	Labelled in Figure 1 as Wastewater pipeline
<b>Solids management</b>			
5	Solid waste (marc) storage area consisting of a concrete hardstand on which lidded plastic bins are placed.	(a) All marc and other organic solids generated from the winery must be stored within closed bins on the storage area.	As labelled in Figure 2 Schedule 1 as Waste storage area
<b>Wastewater management and disposal (irrigation)</b>			
6	Wastewater Disposal (irrigation) system consisting of: <ul style="list-style-type: none"> <li>i. 1,150 m<sup>3</sup> bore water pond lined with synthetic liner.</li> <li>ii. 5,150 m<sup>3</sup> irrigation</li> </ul>	<ul style="list-style-type: none"> <li>(a) A volumetric flow meter must be maintained to enable the cumulative volume of treated wastewater discharged to the irrigation areas (L1 and L2) to be accurately measured.</li> <li>(b) Aerator in the irrigation holding pond must be maintained and operated to</li> </ul>	Labelled in Figure 2 as: Bore water pond Irrigation pond M1 (Flow

Site infrastructure and equipment	Operational requirement	Infrastructure location-Schedule 1
holding pond lined with clay with aerator. iii. Pump and trickle lines. iv. Flow meter (M1) v. Sample tap (W1) vi. Rainfall gauge  Irrigation areas consisting of L1 (Lot 5), and L2 (Lot 13), totaling 11.6 ha.	reduce odours emanating from the pond. (c) A minimum 500 mm freeboard must be maintained on the irrigation holding pond. Sampling tap (W1) must be maintained to be capable of sampling diluted treated wastewater for irrigation. (d) No wastewater irrigation occurs between 1 May and 31 October (inclusive). (e) Irrigated wastewater must be treated in the wastewater treatment plant which includes pH buffering, settling, and aerobic treatment and be diluted with bore water and or rainwater prior to irrigation. (f) Irrigation is not undertaken 12 hours before, during, or 24 hours immediately after a rainfall event over 10 mm. (g) Irrigation occurs on a rotational basis ensuring that areas are not irrigated for at least 24 hours between applications. (h) No irrigation-generated run-off occurs beyond the boundary of the irrigation areas. (i) Irrigation must not occur on land that is visibly waterlogged. (j) Healthy vines that are pruned and harvested must be maintained over the wastewater irrigation areas to facilitate the uptake and export of nutrients.	meter) W1 (sampling tap) L1 L2

## Emissions and discharges

### Authorised emissions limits

2. The licence holder must ensure that emissions from the discharge point listed in table 3 for the corresponding parameter do not exceed the corresponding limit when monitored in accordance with condition 3.

**Table 2: Emission limit values**

Discharge point	Parameter	Limit value	Sampling
Discharge point W1 as shown in Schedule 1 Figure 2	Total suspended solids	<100 mg/L	Spot sample
	Biological oxygen demand	<150 mg/L	
	pH	Between 6.5 and 9	
	Electrical conductivity	< 2.9 dS/m	
	Total nitrogen	<15.80 kg/ha/annual period	Annual loading (see Schedule 2)
	Total phosphorus	<10.70 kg/ha/annual period	
	Biological oxygen demand	<1,500 kg/month	Monthly loading

## Monitoring

### Monitoring of emissions to land

- The licence holder must monitor emissions in accordance with the requirements specified in Table 3 and record the results of all such monitoring.

**Table 3: Emissions and discharges monitoring**

Discharge point	Monitoring location	Parameter	Units	Frequency	Averaging period <sup>2</sup>	Method
M1 – outflow from irrigation dam to irrigation areas as shown in Schedule 1 Figure 2.	Wastewater sampling point W1 (As shown in Schedule 1 Figure 2 as W1)	Volumetric flow rate (cumulative)	L/day	Continuous when discharging	Daily	N/A
		pH <sup>1</sup>	-	Monthly from November to April inclusive	Spot sample	AS/NZS 5667.1 and AS/NZS 5667.10
		Electrical conductivity <sup>1</sup>	dS/m			
		Total nitrogen	mg/L			
		Total phosphorus				
		Total dissolved solids				
		Total suspended solids				
		Biological oxygen demand				
		Sodium ion (Na <sup>+</sup> )		Twice yearly in vintage (February - March) and post-vintage (May)		
		Calcium ion (Ca <sup>2+</sup> )				
		Magnesium ion (Mg <sup>2+</sup> )				
Sodium adsorption ratio	-					

<sup>1</sup>In field non-NATA accredited analysis permitted for pH and electrical conductivity.

<sup>2</sup>Samples must not be collected during periods of low flow or if excessively diluted by stormwater.

- The licence holder must ensure that all non-continuous analysis undertaken pursuant to condition 3 is undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) for the methods of analysis relevant to the corresponding relevant parameter.
- The licence holder must ensure that monitoring is undertaken in each monthly period such that there are at least 21 days between the days on which samples are taken in successive months.

## Records and reporting

- The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
  - the name and contact details of the complainant, (if provided);
  - the time and date of the complaint;
  - 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 licence holder to investigate or respond to any complaint.
- 7.** The licence holder must:
- (a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
  - (b) prepare and submit to the CEO by no later than the **31 August** after the end of that annual period an Annual Audit Compliance Report in the approved form.
- 8.** The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:
- (a) any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence;
  - (b) all logbooks for inspections required in the course of complying with condition 1, (Items 3f, 4b and 4c) of this licence;
  - (c) monitoring programmes undertaken in accordance with condition 3 of this licence; and
  - (d) complaints received under condition 6 of this licence.
- 9.** The licence holder must, within 24 hours of becoming aware of any discharge of wastewater (leak or spills) from the WWTP or pipeline must notify the CEO in writing and include in that notification the following information:
- (a) the time and date when the discharge occurred;
  - (b) if any environmental impact occurred because of the discharge and if so, what that impact is and where the impact occurred, and
  - (c) the details and result of any investigation undertaken into the cause of the discharge.
- 10.** The licence holder must submit to the CEO by no later than **31 August** after the end of each annual period, an Annual Environmental Report for that annual period for the conditions listed in Table 4, and which provides information in accordance with the corresponding requirement set out in Table 4.

**Table 4: Annual environmental report**

Condition or table	Requirement
N/A	(a) Summary of any failure or malfunction of and pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken.
1	(b) Amount (tonnes/m <sup>3</sup> ) of sludge removed from the drains, sumps, settling, aerobic and holding tanks for off-site disposal per annual period. (c) The amount in tonnes of marc/organic material removed off site each annual period and where the material was disposed to.
2	(d) Wastewater monitoring data in tabulated and graphical form that includes the sample date compared to the discharge limits. If limits have been exceeded an explanation of why and what actions will be taken to ensure limits are met in the future. (e) Present monthly and annual tabulated loadings of nitrogen, phosphorus and BOD applied to the irrigation area (L1 and L2) using the Nutrient Loading Spreadsheet in Schedule 2.
3	(f) Volume (m <sup>3</sup> or kL) of wastewater applied to irrigation areas (L1 and L2).

Condition or table	Requirement
	<ul style="list-style-type: none"> <li>(g) Wastewater monitoring data in tabulated and graphical form including the sampling date.</li> <li>(h) An assessment and interpretation of the data including comparison to historical trends and loading limits (minimum of 5 years).</li> <li>(i) Copies of all laboratory sample analysis reports.</li> <li>(j) Copy of sampling plan demonstrating how sampling and preservation of samples meet Australian Standards.</li> </ul>
6	(k) A summary of complaints recorded for the annual period.
7	(l) A summary of compliance against each licence condition.
8	<ul style="list-style-type: none"> <li>(m) Copy of logbook demonstrating when sumps in the wastewater treatment plant have been visually inspected once a day when operating and signed and dated by the inspector.</li> <li>(n) Copy of logbook demonstrating that the underground pipeline has been visually inspected once a month and signed and dated by the inspector.</li> </ul>
9	(o) A summary of all spills and the results of each investigation undertaken.



## Definitions

In this licence, the terms in Table 5 have the meanings defined.

**Table 5: Definitions**

Term	Definition
ACN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and template available on the Department's website).
annual period	a 12-month period commencing from 1 July until 30 June
AS/NZS 5667.1	means the current version of Australian / New Zealand Standard AS/NZS 5667.1 <i>Water Quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS/NZS 5667.10	means the current version of Australian / New Zealand Standard AS/NZS 5667.10 <i>Water Quality – Sampling, Part 10: Guidance on sampling of waste waters</i>
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 or: <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
discharge	has the same meaning given to that term under the EP Act.
dS/m	deciseimens per metre
emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
Freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
hardstand	means a surface with a permeability of 10 <sup>-9</sup> metres/second or less.
kL	kilolitres
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.

<b>Term</b>	<b>Definition</b>
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
marc	means grape material (mainly skin, pulp and seeds) which is left over after grape crushing and pressing.
monthly period	means a one-month period commencing from the first day of a month until the last day of the same month.
NATA	means the (Australian) National Association of Testing Authorities
NATA accredited	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
premises	refers to 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 licence.
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.
waste	has the same meaning given to that term under the EP Act.

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**END OF CONDITIONS**

## Schedule 1: Maps

### Premises map

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

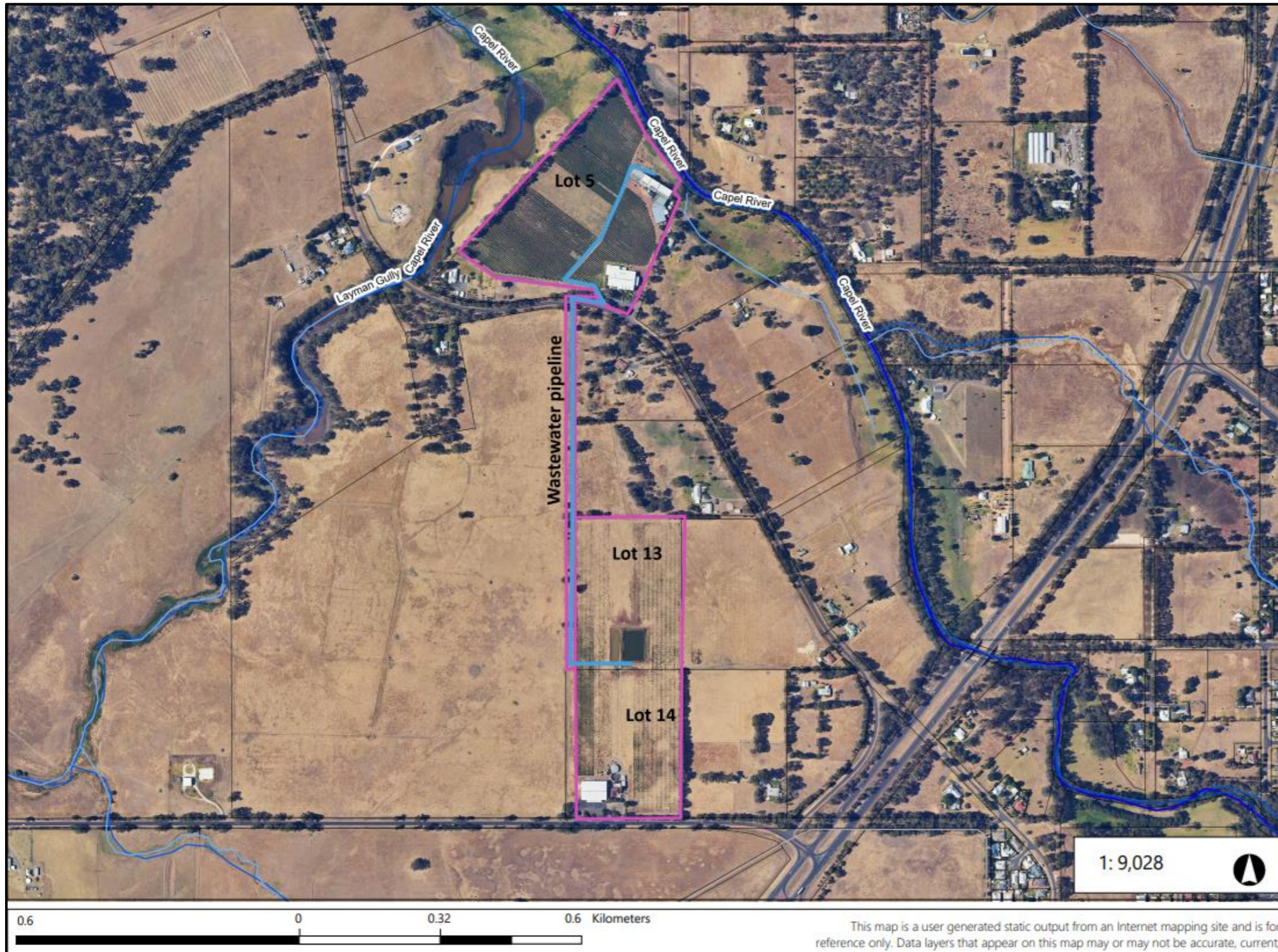


Figure 1: Map of the boundary of the prescribed premises outlined in pink, alignment of wastewater pipeline in blue.

### Site layout map

The site layout of the prescribed premises is shown in the map below (Figure 2)

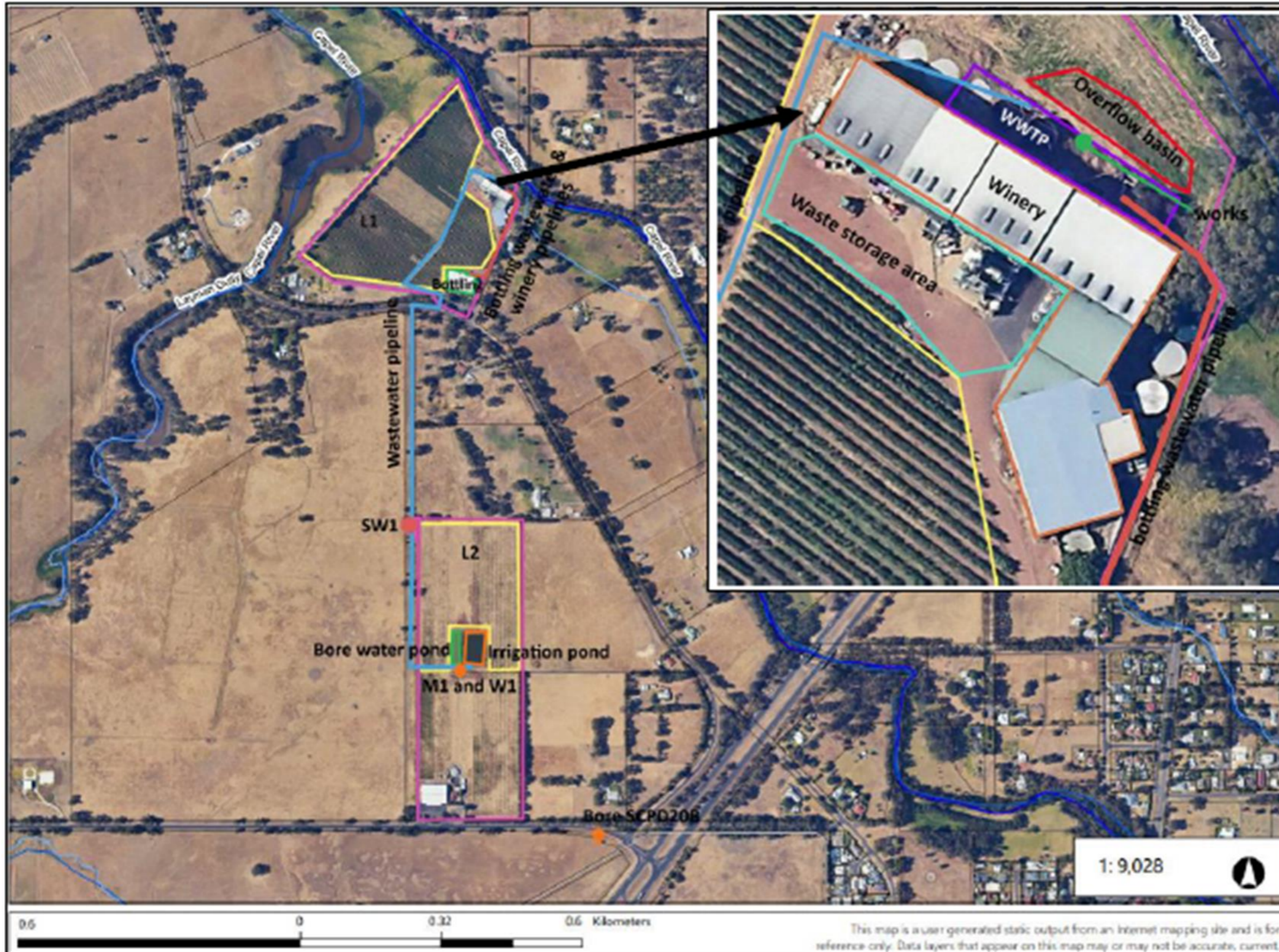


Figure 2: Map of the site layout and sampling and monitoring locations.

### WWTP layout map

Outline of the WWTP layout and flow direction (Figure 3)

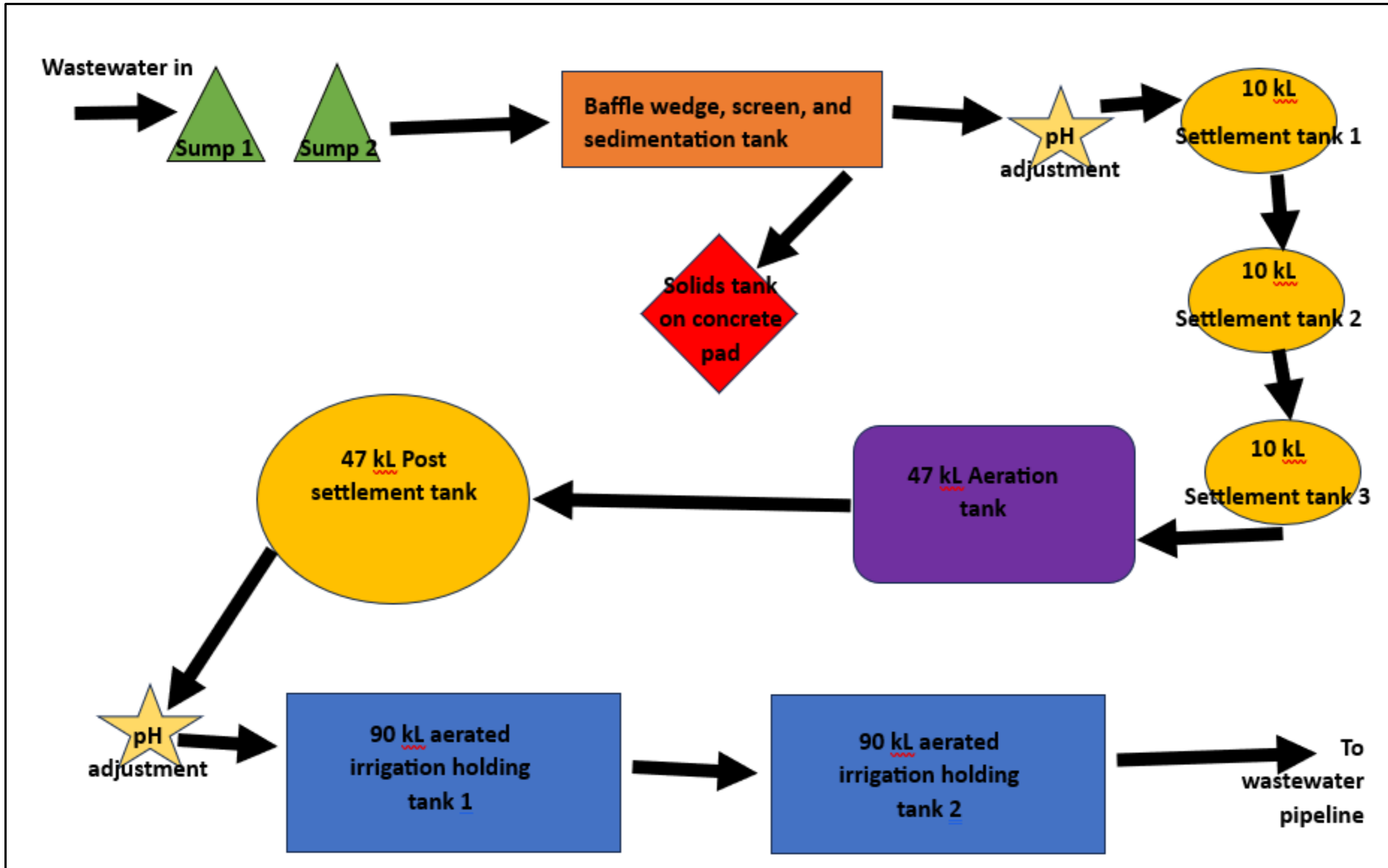


Figure 3: Map of the WWTP layout.

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## Schedule 2: Nutrient loading calculator

Irrigation areas <sup>1</sup> : size, volume irrigated, irrigation days				Annual period (as defined by your licence) <sup>2</sup>												Volume irrigated during annual period (kL) <sup>3</sup>	
	Size (ha)			January	February	March	April	May	June	July	August	September	October	November	December		
EXAMPLE irrigation area:	25	volume irrigated	kL	20,000	20,000	18,000	15,000	0	0	0	0	15,000	18,000	20,000	25,000	151,000	
		days of irrigation	days/month	29	28	30	25	0	0	0	0	20	25	30	27		
Irrigation Area 1:		volume irrigated	kL														
		days of irrigation	days/month														
Irrigation Area 2:		volume irrigated	kL														
		days of irrigation	days/month														
Irrigation Area 3:		volume irrigated	kL														
		days of irrigation	days/month														
Wastewater quality <sup>4</sup>	EXAMPLE sampling date:			20/01/2022	15/02/2022	17/03/2022	19/04/2022	12/05/2022	12/06/2022	9/07/2022	15/08/2022	12/09/2022	15/10/2022	13/11/2022	7/12/2022		
	EXAMPLE total nitrogen			mg/L	13.2	21.3	17.6	19.2	42.4	25.1	30.4	40.3	34.8	38.7	44.6	47.3	
	EXAMPLE BOD			mg/L	4.8	12.1	6.1	4.9	4.8	4.1	3.3	5.2	4.4	5.2	5.1	7.5	
	Sampling date:																
	For wineries to indicate sampling period: <sup>5</sup>																
	Total nitrogen			mg/L													
	Total phosphorus			mg/L													
Biochemical oxygen demand			mg/L														
Nutrient and BOD loadings <sup>6</sup>				January	February	March	April	May	June	July	August	September	October	November	December	kg/ha/annual period <sup>7</sup>	
EXAMPLE total nitrogen loadings				10.6	17.0	12.7	11.5					20.9	27.9	35.7	47.3	183.5	
EXAMPLE BOD loadings				kg/ha/month	3.8	9.7	4.4	2.9					2.6	3.7	4.1	7.5	38.8
				kg/ha/day	0.13	0.35	0.15	0.12							0.13	0.15	0.14
Irrigation Area 1	Total nitrogen	kg/ha/month															
	Total phosphorus	kg/ha/month															
	Biochemical oxygen demand	kg/ha/month															
		kg/ha/day															
Irrigation Area 2	Total nitrogen	kg/ha/month															
	Total phosphorus	kg/ha/month															
	Biochemical oxygen demand	kg/ha/month															
		kg/ha/day															
Irrigation Area 3	Total nitrogen	kg/ha/month															
	Total phosphorus	kg/ha/month															
	Biochemical oxygen demand	kg/ha/month															
		kg/ha/day															
Explanatory notes and calculations:																	

Licence limits <sup>8</sup>				
		kg/ha/annual period	kg/ha/month	kg/ha/day
Irrigation area 1	TN			
	TP			
	BOD			
Irrigation area 2	TN			
	TP			
	BOD			
Irrigation area 3	TN			
	TP			
	BOD			

White cells should be filled in where applicable. Pale yellow cells will calculate automatically.
NOTE 1 - Where there is irrigation to more than 3 areas, additional copies of this sheet should be completed.
NOTE 2 - This sheet should be completed for your annual period as defined by your licence. <i>E.g. If your annual period is from 1 October to the 30 September in the following year, for the 2022-2023 annual period, you should include data from January - September 2023, and October - December 2022.</i>
NOTE 3 - Volume irrigated during the annual period (kL), for each irrigation area is the sum of the monthly volumes irrigated to that area. <i>E.g. For the example shown: Volume irrigated during annual period = 20,000 (Jan) + 20,000 (Feb) + 18,000 (Mar) + 15,000 (Apr) + 15,000 (Sep) + 18,000 (Oct) + 20,000 (Nov) + 25,000 (Dec) = 151,000 kL. Noting that for the example there was no irrigation during the months of May, June, July or August.</i>
NOTE 4 - The sampling and analysis of your wastewater quality should be undertaken in accordance with your licence conditions. For sampling less often than monthly, i.e. quarterly, 6-monthly, or annually: for months where no sampling is required, wastewater quality should be taken to be equivalent to the most recent sample taken. <i>E.g. Quarterly sampling during Feb, May, Aug and Nov - total nitrogen concentrations were analysed to be 7, 11, 8 and 13 mg/L respectively in the wastewater. For March and April, as February was the most recent sample taken, total nitrogen concentration is estimated to be 7 mg/L. Similarly, for June and July, as May was the most recent sample, total nitrogen concentration is estimated to be 11 mg/L. There will be no sampling date associated with non-sampling months.</i> If your licence requires you to monitor loading rates for additional parameters (e.g. inorganic nitrogen, reactive phosphorus etc.) additional copies of this sheet should be completed for the additional parameters.
NOTE 5 - For wineries to indicate sampling period - this row is only required to be completed if your licence condition specifies a sampling period e.g. pre-vintage, peak vintage, late vintage, post vintage, non-vintage. Indicate which sampling date corresponds with which period.
NOTE 6 - Parameter loading (TN, TP or BOD) each month per hectare for each irrigation area (kg/ha/month): $\frac{\text{monthly concentration of parameter (TN, TP or BOD) in mg/L} \times \text{monthly volume of wastewater irrigated to irrigation area (kL)}}{1000}$ $\frac{\text{monthly concentration of parameter (TN, TP or BOD) in mg/L} \times \text{monthly volume of wastewater irrigated to irrigation area (kL)}}{1000}$ size of irrigation area <i>E.g. Using the example shown, for total nitrogen for January: 13.2 mg/L * 20,000 kL / 1,000 = 264 kg/month. 264 / 25 ha = 10.6 kg/ha/month (for January).</i> Loading of parameter (BOD) each day per hectare for each irrigation area (kg/ha/day): BOD loading (kg/ha/month) ÷ number of days of irrigation during that month. <i>E.g. Using the example shown, for BOD for October: 3.7 kg/ha/month / 25 days of irrigation during October = 0.15 kg/ha/day (for October)</i>
NOTE 7 - To calculate annual loading of parameter (TN, TP or BOD) per hectare (kg/ha/annual period): sum of monthly loadings (kg/ha/month). You should calculate an annual loading (kg/ha/annual period) for each relevant parameter for each irrigation area. <i>E.g. Using the example shown, for total nitrogen: 10.6 (Jan) + 17 (Feb) + 12.7 (Mar) + 11.5 (Apr) + 20.9 (Sep) + 27.9 (Oct) + 35.7 (Nov) + 47.3 (Dec) kg/ha/month = 183.5 kg/ha/annual period</i>
NOTE 8 - Relevant licence limits to be entered. Where TN = total nitrogen, TP = total phosphorus, and BOD = biochemical oxygen demand. Once applicable licence limits have been entered, the calculated loadings will become red text if they exceed the relevant limit.

Note: Licence holders can request a digital Excel spreadsheet (with in-built formulas) on request.

Send all requests to [info@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au)

**Attention: Process Industries** and quote the licence number.