Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L4404/1991/15
Licence holder	Harvey Fresh (1994) Ltd
ACN	065 591 219
Registered business address	Level 1, 1318 Hay Street WEST PERTH WA 6005
File number	DWERVT2474
Duration	01/10/2012 to 30/09/2031
Date of amendment	13/03/2025
Premises details	Harvey Fresh Dairy and Juice Factories Third Street HARVEY WA 6220 Legal description – Lot 1 on Diagram 4786, Lot 20 and Lot 22 on Plan 2344, Lot 187, Lot 189 and 190 on Plan 202110, Lot 200 on Diagram 66494, Lots 33, 34, 35 and 36 on Plan 205324, and Lot 191 and 192 on Plan 202109

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed production capacity
Category 17 – Milk processing: premises on which – (a) milk is separated or evaporated (other than a farm); or (b) evaporated or condensed milk, butter, ice cream, cheese or any other dairy product is manufactured, and from which liquid waste is or is to be discharged onto land or into waters.	Not more than 180,000 tonnes of milk processed per annual period
Category 24 – Non-alcoholic beverage manufacturing: premises on which a non-alcoholic beverage is manufactured and from which liquid waste is or is to be discharged onto land or into waters.	Not more than 13,000 kilolitres of fruit and vegetable juice and concentrate produced per annual period.

This licence is granted to the licence holder, subject to the following conditions, on 13 March 2025, by:

Caron Goodbourn

Digitally signed by Caron Goodbourn
Date: 2025.03.13 10:18:11 +08'00'

MANAGER, PROCESS INDUSTRIES
STATE-WIDE DELIVERY
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Instrument	Summary of changes
29/10/2015	L4404/1991/15	Amendment to include category 61, remove category 25, amend phosphorus loading limit for orange orchard and remove annual wastewater monitoring requirements.
29/04/2016	L4404/1991/15	Amendment by notice to extend licence expiry date to 2031.
06/06/2019	L4404/1991/15	Amendment to increase production throughput for category 17, increase the irrigation area, remove category 61, decrease total phosphorus loading limit for irrigation area L4.
06/04/2020	L4404/1991/15	Amendment to increase premises boundary to include additional irrigation area L7 and remove L6. Includes DWER-initiated changes to restrict winter irrigation by April 2021 and remove irrigation area L3.
11/05/2021	W6463/2020/1	Works approval to construct a winter storage pond (pond 3).
12/05/2021	L4404/1991/15	Amendment to extend date for restriction of winter irrigation to April 2022.
09/02/2022	L4404/1991/15	CEO initiated amendment to address the risk of uncontrolled off-site discharges of wastewater (this amendment).
08/09/2022	L4404/1991/15	Licence holder-initiated amendment to reduce the capacity and amend the construction requirements of the emergency wastewater collection tank, and extend the secondary containment works completion date. CEO initiated amendment to include licence holder derived commitments for the temporary irrigation of wastewater over winter as per letter dated 26 May 2022.
31/08/2023	L4404/1991/15	CEO initiated amendment to give effect to a decision of the Minister under the EP Act (Appeal number 035 of 2022).
18/12/2023	L4404/1991/15	Amendment application to install wastewater storage and treatment (disinfection) infrastructure, including transfer pipelines to the boundary of the premises - related to a separate proposal for a third party to accept up to 1,000kL of wastewater per day for reuse.
13/03/2025T	L4404/1991/15	Amendment application to include the operation of Pond 3 and associated groundwater monitoring bores following construction (under W6463/2020/1).

Interpretation

In this licence:

(a) the words ‘including’, ‘includes’ and ‘include’ in conditions mean “including but not limited to”, and similar, as appropriate;

(a) 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;

(b) where tables are used in a condition, each row in a table constitutes a separate condition;

(c) 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 change over time;

(d) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(e) 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

1. The licence holder must ensure that the infrastructure and equipment specified in Table 1 is maintained in good working order and operated in accordance with the corresponding operational requirements specified in that table.

Table 1: Infrastructure and equipment controls table

Site infrastructure and equipment	Operational requirements	Infrastructure location Schedule 1: Maps – Site layout (unless specified)
Milk processing facility	(a) The loading and unloading of raw milk, dairy products and waste materials must be carried out in a bunded concrete hardstand containment area with a drainage system that directs wastewater to one of three 3.5 kL sumps; (b) The processing of milk and dairy products must be carried out within an enclosed building with concrete flooring with a drainage system that directs wastewater to one of three 3.5 kL sumps.	Milk processing
Juice processing facility	(a) Enclosed building with concrete flooring with a drainage system that directs wastewater to one of three 3.5 kL sumps.	Fruit juice processing
Three 3.5 kL sumps	(a) Impervious concrete sumps to initially contain process water from the milk processing facility and juice processing facility; (b) The licence holder must direct all wastewater from the sumps to the wastewater treatment system.	Sump pit 1, sump pit 2 and sump pit 3
Wastewater treatment system including the DAF, EQ tank and dual SBR	(a) The licence holder must prevent the uncontrolled loss of wastewater from the wastewater treatment system and its associated pipework; (b) Sampling point FM must be operated and maintained to allow for periodic sampling of treated wastewater; (c) High level monitor with alarms in the DAF, SBR1 and SBR2 to be maintained in working order; (d) High level sensors must be capable of sending alarms by phone and email to the licence holder's management personnel.	Wastewater treatment plant, including the DAF, sludge tanks, EQ tank, SBR1 and SBR2
Wastewater treatment plant area - Secondary containment	(a) Once the collection sump reaches capacity, the licence holder must determine whether the accumulated liquid is mainly clean stormwater or contaminated with wastewater (testing may be required to determine this); (b) If clean stormwater, water must be recovered and re-used for another purpose or discharged to the	

Site infrastructure and equipment	Operational requirements	Infrastructure location **Schedule 1: Maps – Site layout (unless specified)**
	stormwater drainage system; (c) If contaminated with wastewater, must return to the DAF unit for treatment.	
Pond 1 (6,000 kL capacity)	(a) No wastewater or potentially contaminated stormwater must be stored within Pond 1.	Pond 1 as shown in Schedule 1: Maps – Groundwater monitoring bore locations map 2
Winter storage pond (with two compartments (Pond 2A and Pond 2B) of 4,000 kL each; total of 8,000 kL capacity)	(a) Compacted clay-lined ponds; (b) A minimum top embankment freeboard of 300 mm is maintained on each pond; (c) Stormwater runoff must be prevented from entering the winter storage pond or causing erosion of outer pond embankments; (d) Overtopping of the winter storage pond must not occur except as a result of an extreme rainfall event (greater than 1 in 10 year event of 72 hours duration); (e) Vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments; (f) Trapped overflows shall be maintained between treatment ponds to prevent carry-over of surface floating matter to subsequent ponds; (g) No overflow leaves the premises.	Pond 2A and Pond 2B as shown in Schedule 1: Maps – Groundwater monitoring bore locations map 2
Pond 3: • minimum operational capacity of 27,617 m^3 • minimum 2 mm thick HDPE geomembrane liner • freeboard marker • associated underdrainage system comprising of underdrains and a passive gas extraction system	(a) Must only accept treated wastewater via a pipeline from the wastewater treatment system. (b) A minimum operational freeboard of 500 millimeters must be maintained.	Pond 3 as shown in Schedule 1: Maps – Groundwater monitoring bore locations map 2
Composting Pad	(a) Must only be used for the storage of Pond 1 sludge and dewatered DAF sludge; (b) A bunded hardstand area capable of preventing surface run-off of leachate and sludge and which captures and contains sludge leachate for treatment or disposal.	Composting pad

Works – Wastewater storage and disinfection

2. The licence holder must:

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

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

(c) at the corresponding infrastructure location;

as set out in Table 2.

Table 2: Construction requirements

	Infrastructure and equipment	**Construction requirements**	**Infrastructure location Schedule 1 Maps: Harvey Water WWTP infrastructure**
1	Ultraviolet disinfection plant capable of treating a maximum of 3 ML/day	(a) Must be housed within an enclosed container. (b) Must have a UV sterilizer validated for a 2-log reduction. (c) Must have a 316SS reactor house, opti-cone diverter and electrically actuated 3-ring wiper cleaning system	UV plant
2	Chlorination treatment plant including: 5x 50 kL poly storage tanks	(a) Sodium hypochlorite dosing and recirculation system must be housed within an enclosed container. (b) Five 50 kL storage tanks must be placed on a compacted sand pad.	Chlorination plant 50 kL tanks
3	Wastewater pipeline fitted with the following : three-way valve flow meter inline wastewater sampling tap, inline continuous sampler for chlorine, pH and turbidity.	(a) Wastewater pipeline must be installed and connect the SBR decant line to the UV disinfection system and or Ponds 1 and 2. (b) Wastewater pipeline must be installed and connect the UV disinfection to the sodium hypochlorite dosing recirculation system and storage tanks. (c) Flow meter must be installed and located on the chlorination outlet from the WWTP. (d) Three-way valve must be installed and located on the chlorination outlet pipe that can divert treated wastewater off-site or to on-site storage. (e) Inline continuous sampler on chlorination outlet must be installed capable of measuring chlorine, pH and turbidity.	Wastewater pipeline Treated wastewater pipeline Flow meter 3 way valve

Compliance reporting

3. The works approval holder must within 60 calendar days of all the items of infrastructure or equipment required by condition 2, Table 2 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of Table 2; and

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

4. The Environmental Compliance Report required by condition 3, must include as a minimum the following:

(a) certification by a suitably qualified technician that the items of infrastructure or component(s) thereof, as specified in Table 2, have been constructed in accordance with the relevant requirements specified in condition 2;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in Table 2; and

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

Environmental Commissioning

5. The licence holder must only commence environmental commissioning of the UV and chlorination treatment plant infrastructure identified in Table 2, where the Environmental Compliance Report as required by Condition 3 has been submitted by the works approval holder.

6. The licence holder must submit an environmental commissioning report within 30 days of the commencement of commissioning of the UV and chlorination treatment plant infrastructure. The commissioning report must detail the outcomes and any wastewater quality testing.

Improvement works – L5

7. By the 30 May 2023, the licence holder must raise the depression over the underground pipeline within L5 using clean loam fill (with a high phosphorus retention index) where seasonal flooding occurs, and sow with a sub-crop clover over the top.

Works – additional groundwater monitoring bores

8. The licence holder must install and undertake the works for the infrastructure listed in Table 3 in accordance with the corresponding construction requirements and within the corresponding timeframe set out in Table 3.

Table 3: Additional groundwater monitoring bore requirements

Infrastructure	Design, construction, and installation requirements	Monitoring well location(s)	Timeframe
Groundwater monitoring bores for monitoring of irrigation areas L7 and L8	Two new groundwater monitoring bores (MB13 and MB14) installed to meet the requirements of *Minimum Construction Requirements for Water Bores in Australia.*	Located as shown in the Proposed groundwater monitoring bore locations map within Schedule 1: Maps.	30 April 2024
Monitoring well network for the treated wastewater system (at least three (3) groundwater monitoring wells: MB15, MB16 and MB17. Approximate locations as shown in	<u>Well design and construction:</u> Designed and constructed in accordance with ASTM D5092/*D5092M-16: Standard practice for design and installation of groundwater monitoring bores*. Well screens must target the part, or parts, of the aquifer most likely to be affected by contamination[1]. Where temporary/seasonal perched features are present, wells must be nested, and the perched features individually screened. <u>Logging of borehole:</u> Soil samples must be collected and logged	Sited with regard to Schedule 1: Maps – Groundwater monitoring bore locations map 2, and the Department's Water Quality Protection Note 20 Groundwater Monitoring Bores (DoW, 2006) – Recommendations – Siting of	31 August 2025

Infrastructure	Design, construction, and installation requirements	Monitoring well location(s)	Timeframe
Schedule 1: Maps – Groundwater monitoring bore locations map 2	during the installation of the monitoring wells. A record of the geology encountered during drilling must be described and classified in accordance with AS 1726. Any observations of staining / odours or other indications of contamination must be included in the bore log.	monitoring bores; and sited spaced to enable detection of any potential contamination from the treated wastewater storage ponds.	
	<u>Well construction log:</u> Well construction details must be documented within a well construction log to demonstrate compliance with *ASTM D5092/D5092M-16.* The construction logs shall include elevations of the top of casing position to be used as the reference point for water-level measurements, and the elevations of the ground surface protective installations.		
	<u>Well development:</u> All installed monitoring wells must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from around the well screen to ensure the hydraulic functioning of the well. A detailed record must be kept of well development activities and included in the well construction log.		
	<u>Installation survey:</u> the vertical (top of casing) and horizontal position of each monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor.		
	<u>Well network map:</u> a well location map (using aerial image overlay) must be prepared and include the location of all monitoring wells in the monitoring network and their respective identification numbers.		

Note 1: refer to Section 8 of Schedule B2 of the Assessment of Site Contamination NEPM for guidance on well screen depth and length.

9. The licence holder must within 30 days of each groundwater monitoring bore, required by condition 8, being constructed:

(a) undertake an audit of their compliance with the requirements of condition 8; and

(b) prepare and submit to the CEO a well construction report evidencing compliance with the requirements of condition 8.

10. The report required by condition 9(b) for MB13 and MB14 must:

(a) certify that the works were constructed in accordance with the construction requirements as specified in condition 8 and specify the completion dates for the corresponding infrastructure works completed;

(b) include photographs of all new infrastructure installed;

(c) be signed by a person authorised to represent the licence holder and contain the printed name of that person within the company; and

(d) include copies of the bore logs recorded at the time of installation of each groundwater monitoring bore, to include as a minimum the following:

(i) GPS coordinates of bore location;
(ii) start and finish dates of installation
(iii) type of drilling method used;
(iv) diameters and depth of hole drilled;
(v) complete strata details to include:
  a. well completion diagram;
  b. lithological description, including strata depths;
  c. standing water level; and
  d. drilling penetration rates;
(vi) casing details to include:
  a. type and diameter;
  b. class of pipe and/or wall thickness; and
  c. position within the hole and how it is secured and sealed;
(vii) slotted screening details to include:
  a. length of slotted section and location;
  b. screen type, dimensions and location; and
  c. the gravel pack material and size;
(viii) bore development procedure and record, including total drilled depth; and
(ix) surveyed height (AHD) of each bore.

Emissions

Disposal of treated wastewater

11. Prior to the commencement of any wastewater being discharged to land, the licence holder must monitor each emission point for the parameters and at the frequency specified in Table 4, and undertake any specifications as required.

Table 4: Monitoring of irrigation areas prior to irrigation occurring

Emission point ref as specified in Schedule 1	Parameter	Frequency	Specifications
L4, L5, L7 and L8 as specified in Schedule 1, Irrigation Areas	Visual inspection for waterlogging and/or ponded water. *Such as, but not limited to, water ponding on the surface, grass glistening and staying wet, dark or slimy topsoil, algae present, boggy soils, and/or yellowing crops.*	6 hours or less prior to commencement of any irrigation	If waterlogging is observed or suspected: several shallow holes are to be excavated to approximately 30 cm in depth across the irrigation area and observed for any water inflow. If water is observed within the shallow holes, irrigation may not occur within that irrigation area.
	Two readings using a handheld soil moisture probe. *Both 12 cm and 20 cm*	Only during the months of May, June, July and August, 6 hours or	Soil moisture readings must be recorded, along with GPS location of where the readings were taken and

Emission point ref as specified in Schedule 1	Parameter	Frequency	Specifications
	depth probes are able to be used.	less prior to commencement of any irrigation	what depth probe was used.
	Expected precipitation and evaporation	Weekly	Plan the coming 7 days irrigation schedule
		Daily, when irrigation is planned to commence	Confirm net precipitation to determine whether irrigation can occur in accordance with Table 5, (h), (i), (j) and (k).

12. The licence holder must ensure treated wastewater is discharged to land only at the locations specified in Table 5 and in accordance with the corresponding discharge requirements specified in that table.

Table 5: Authorised discharge of treated wastewater via irrigation

Emission point ref as specified in Schedule 1	Discharge via irrigation requirements
L4, L5, L7 and L8 as specified in Schedule 1, Irrigation Areas	(a) Wastewater must be treated in the wastewater treatment system, which includes the DAF and dual SBR, prior to discharge to land; (b) Bunding/cut-off drains are maintained adjacent to treated wastewater irrigation areas to prevent surface runoff; (c) No irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the Premises; (d) Wastewater is evenly distributed over the irrigation area; (e) No soil erosion occurs; (f) Irrigation does not occur on land that is waterlogged; (g) Vegetation cover is maintained over the irrigated area; (h) During the months of May, June, July and August, irrigation does not occur when rainfall is occurring; (i) No irrigation for 24 hours following a >5 to ≤10 mm rainfall event; (j) No irrigation for 48 hours following a >10 to ≤20 mm rainfall event; and (k) No irrigation for 72 hours following a >20 mm rainfall event.

Emissions to land loading limits

13. The licence holder must ensure that treated wastewater discharged in accordance with condition 12 does not exceed the limits specified in Table 6 for each of the corresponding parameters listed in that table.

Table 6: Irrigation emission limits

Emission point reference	Parameter	Limit
L4, L5, L7 and L8	Total nitrogen	250 kg/ha/annual period
	Total phosphorus	9 kg/ha/annual period
	BOD	30 kg/ha/day
	Volume of irrigated wastewater	Not more than 900 kL on any day (24 hour period) during the months of May, June, July and August.

Pasture Management

14. The licence holder must ensure that:

(a) a winter crop, such as a sub-crop of clover or perennial ryegrass, must be established and thereafter maintained, over irrigation areas L4, L5, L7 and L8 by 30 May each year; and

(b) to allow for the establishment and maintenance of the winter crop, as per section (a) of this condition, excess kikuyu biomass must be mechanically or chemically removed from the irrigation area.

Submission of winter irrigation management plan

15. The licence holder must submit to the CEO, by 31 January 2024, a revised winter irrigation management plan.

16. The plan required by condition 15 must include, but not be limited to:

(a) plans for additional wastewater storage and/or evaporation that will allow for wastewater to be stored for not less than 30 days when irrigation is not possible due to waterlogged conditions or when wastewater is in excess to the pasture or vegetation needs;

(b) details of proposed management measures to manage winter irrigation that considers environmental factors such as soil moisture, precipitation, Epan and ET data and crop factors;

(c) options for cropping or managing vegetation to increase water and nutrient uptake over winter; and

(d) measuring, monitoring and reporting in respect to the winter irrigation management plan.

Monitoring

General monitoring

17. The licence holder must ensure that:

(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
(b) all surface water sampling is conducted in accordance with AS/NZS 5667.6;
(c) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
(d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
(e) all soil sampling is conducted in accordance with AS 4482.1 and AS 4482.2 as relevant; and
(f) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being tested.

18. The licence holder must ensure that:

(a) monthly monitoring is undertaken at least 15 days apart;
(b) quarterly monitoring is undertaken at least 45 days apart; and
(c) annual monitoring is undertaken at least 9 months apart.

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

20. The licence holder must, where the requirements for calibrations 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 made to the methods.

Monitoring of emissions to land

21. The licence holder must undertake the monitoring in Table 7 according to the specifications in that table.

Table 7: Monitoring of emissions to land

Monitoring location	Parameter	Units	Frequency	Averaging period
FM1, FM2 and/or FM3 (whichever flow meters have been used to discharge wastewater to the irrigation areas during that month) Flow meter/outlet from Pond 3, when irrigating from Pond 3 in accordance with condition 12.	Volume of treated wastewater discharged	m^3	Continuous, whilst discharging	Monthly
	pH[1]	-	Monthly	Spot sample
	Total dissolved solids	mg/L		
	Total suspended solids			
	BOD			
	Total nitrogen			
	Total phosphorus			
	Oil and grease			
	Electrical conductivity[1]	µS/cm		

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

Monitoring of Pond 3 liner integrity

22. The licence holder must undertake the monitoring in Table 8 according to the specifications in that table.

Table 8: Pond 3 liner integrity monitoring

Monitoring location	Parameter	Units	Frequency	Averaging period	Method
Pond 3 HDPE geomembrane liner (Pond 3 shown in Schedule 1: Maps – Groundwater monitoring bore locations map 2)	Treated wastewater	mm	Annually	Continuous readings taken at no more than 10 second intervals over a minimum of 48 hours	"Pond drop leakage test" in accordance with IPENZ (2017), or similar

Monitoring of ambient soil quality

23. The licence holder must undertake the sampling in Table 9 according to the specifications in that table.

Table 9: Soil sampling and monitoring requirements

Soil sampling points	Soil profile	Parameter	Units	Frequency
S1, S2, S4 – S6, S15 – S28 as specified in Schedule 1 – Soil Monitoring Locations	0 – 10 cm, 10 – 30 cm, 30 – 60 cm and 60 – 100 cm; or until the duplex	pH[1]	-	Annually
		Electrical conductivity[1]	dS/cm	
		Moisture content	%	
		Total nitrogen	mg/kg	
		Ammonia nitrogen	mg/kg	

Soil sampling points	Soil profile	Parameter	Units	Frequency
	clay layer is encountered	Nitrate nitrogen	mg/kg	
		Phosphorus (Colwell)	mg/kg	
		Total Phosphorus	mg/kg	
		Phosphorus buffering index	-	
		Exchangeable sodium percentage	%	
	0 – 30 cm	Saturated hydraulic conductivity	mm/hr	

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

Monitoring of ambient groundwater quality

24. The licence holder must undertake the monitoring in Table 10 according to the specifications in that table.

Table 10: Groundwater monitoring

Monitoring bores	Parameter	Units	Frequency	Averaging period
MB01, MB02, MB03, MB04, MB05, MB07, MB11, MB12, MB13[2], MB14[2], MB15[2], MB16[2] and MB17[2]	Standing water level[1]	m(AHD) m(BGL)	Monthly until 24 months of consecutive data has been recorded, then quarterly thereafter.	Spot, in-field measurement
	pH[1]	-		
	Electrical conductivity[1]	µS/cm		
	Total nitrogen	mg/L	Quarterly	Spot sample
	Ammonia nitrogen			
	Nitrate nitrogen			
	Total phosphorus			
	Reactive phosphorus			
	Total dissolved solids			
	BOD			
	Arsenic			
	Major ions: Na^+, K^+, Ca^{2+}, Mg^{2+}, Cl^-, SO_4^{2-}, HCO_3^-			
	Metals: Cd, Cr, Co, Cu, Hg, Ni, Zn		Annually	

Note 1: In-field, non-NATA accredited sampling permitted.
Note 2: Monitoring to commence within 30 days of bore installation

Monitoring of ambient surface water quality

25. The licence holder must undertake the monitoring in Table 11 according to the specifications in that table.

Table 11: Surface water quality monitoring

Surface water quality sampling sites	Parameter	Units	Frequency	Averaging period
SWQ-1, SWQ-2, SWQ-3, SWQ-4, SWQ-5, SWQ-6, SWQ-7, SWQ-8	pH[1]	-	Monthly, until 24 months of consecutive data has been recorded, then quarterly thereafter	Spot sample
	Electrical conductivity[1]	µS/cm		
	Organic carbon	mg/L		
	Total nitrogen			
	Total phosphorus			
	Soluble reactive phosphorus			
	Filterable reactive phosphorus			
	Nitrite and nitrate			
	Ammonium			

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

Records and reporting

26. The licence holder must maintain accurate and auditable books including the following records, information, reports and data required by this licence:

(a) the calculation of fees payable in respect of this licence;
(b) the maintenance of infrastructure required to ensure that it is kept in good working order in accordance with condition 1;
(c) monitoring undertaken in accordance with conditions 21, 23, 24 and 25; and
(d) complaints received under condition 27.

In addition, the books must:

(e) be legible;
(f) if amended, be amended in such a way that the original and subsequent amendments remain legible and are capable of retrieval;
(g) be retained for at least 3 years from the date the books were made; and
(h) be available to be produced to an Inspector or the CEO.

27. The licence holder must record the number and details of any complaints received by the licence holder relating to its obligations under this licence and its compliance with Part V of the EP Act at the premises, and any action taken by the licence holder in response to the complaint. Details of complaints must include:

(a) an accurate record of the concerns or issues raised, for example a copy of any written complaint or a written note of any verbal complaints made;
(b) the name and contact details of the complainant, if provided by the complainant;
(c) the date of the complaint; and
(d) the details and dates of the actions taken by the licence holder in response to the complaints.

28. 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 60 days after the end of that annual period an annual audit compliance report in the approved form.

29. The licence holder must submit to the CEO by no later than 60 days after the end of

each annual period, an annual environmental report for that annual period for the conditions listed in Table 12, and which provides information in accordance with the corresponding requirements set out in that table.

Table 12: Annual Environmental Report

Condition	Requirement
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken
Condition 11, Table 4	Monitoring of irrigation areas prior to irrigation occurring
Condition 13, Table 6	Irrigation emission limits
Condition14	Type of pasture(s) established within each irrigation area, and amount of kikuyu biomass removed from each irrigation area.
Condition 21, Table 7	Monitoring of emissions to land, including summary of volume of wastewater discharged to each irrigation area
Condition 22, Table 8	Pond 3 liner integrity monitoring – Pond drop leakage test results, including date(s) undertaken
Condition 23, Table 9	Soil sampling and monitoring
Condition 24, Table 10	Groundwater monitoring
Condition 25 Table 11	Surface water quality monitoring
Condition 27	Complaints summary
Condition 28	Compliance (AACR)
Condition 31	Summary of notification activities

30. The licence holder must ensure the report required by condition 28 contains an assessment of the information contained within against licence limits and previous monitoring results.

31. The licence holder must notify the CEO in writing when activities listed in Table 12 are undertaken on the premises in accordance with the notification requirements in that table.

Table 13: Notification requirements

Activities	Notification requirement
Taking Pond 1 offline for maintenance works	No less than 72 hours in advance of works
Removal of sludge from Pond 1	No less than 14 days in advance of works

32. The licence holder must comply with a department request, within 14 days from the date of the department request or such other period as agreed to by the inspector or the CEO.

Definitions

In this licence, the terms in Table 14 have the meanings defined.

Table 14: Definitions

Term	Definition
AHD	Australian Height Datum
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website)
annual period	means a 12 month period commencing from 1 August until 31 July in the following year
AS 1726	means the current version of Australian Standard AS 1726: *Geotechnical site investigations*
AS/NZS 4482.1	means the current version of Australian / New Zealand Standard AS/NZS 4482.1 *Guide to the investigation and sampling of sites with potentially contaminated soil*
AS 5667.1	means the current version of Australian / New Zealand Standards 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 5667.6	means the current version of Australian / New Zealand Standards AS/NZS 5667.6 *Water quality- Sampling, Part 6: Guidance on sampling of rivers and streams*
AS 5667.10	means the current version of Australian / New Zealand Standards AS/NZS 5667.10: *Water quality – Sampling, Part 10: Guidance on sampling of wastewaters*
AS 5667.11	means the current version of Australian / New Zealand Standards AS/NZS 5667.11: *Water quality – Sampling, Part 11: Guidance on sampling of groundwaters*
ASTM D5092/D5092M-16	means the ASTM international standard for *Standard practice for design and installation of groundwater monitoring bores (Designation ASTM D5092/D5092M-16)*, as amended from time to time.
books	has the same meaning given to that term under the EP Act
BGL	below ground level
BOD	Biochemical Oxygen Demand
Ca^{2+}	means calcium ion
Cd	means cadmium
CEO	means Chief Executive Officer of the Department. CEO for the purposes of notification means: Director General Department Administering the *Environmental Protection Act 1986* Locked Bag 10 JOONDALUP DC WA 6919 or: info@dwer.wa.gov.au
Cl^-	means chloride ion
Co	means cobalt
condition	means a condition to which this licence is subject under s.62 of the EP Act
Cr	means chromium

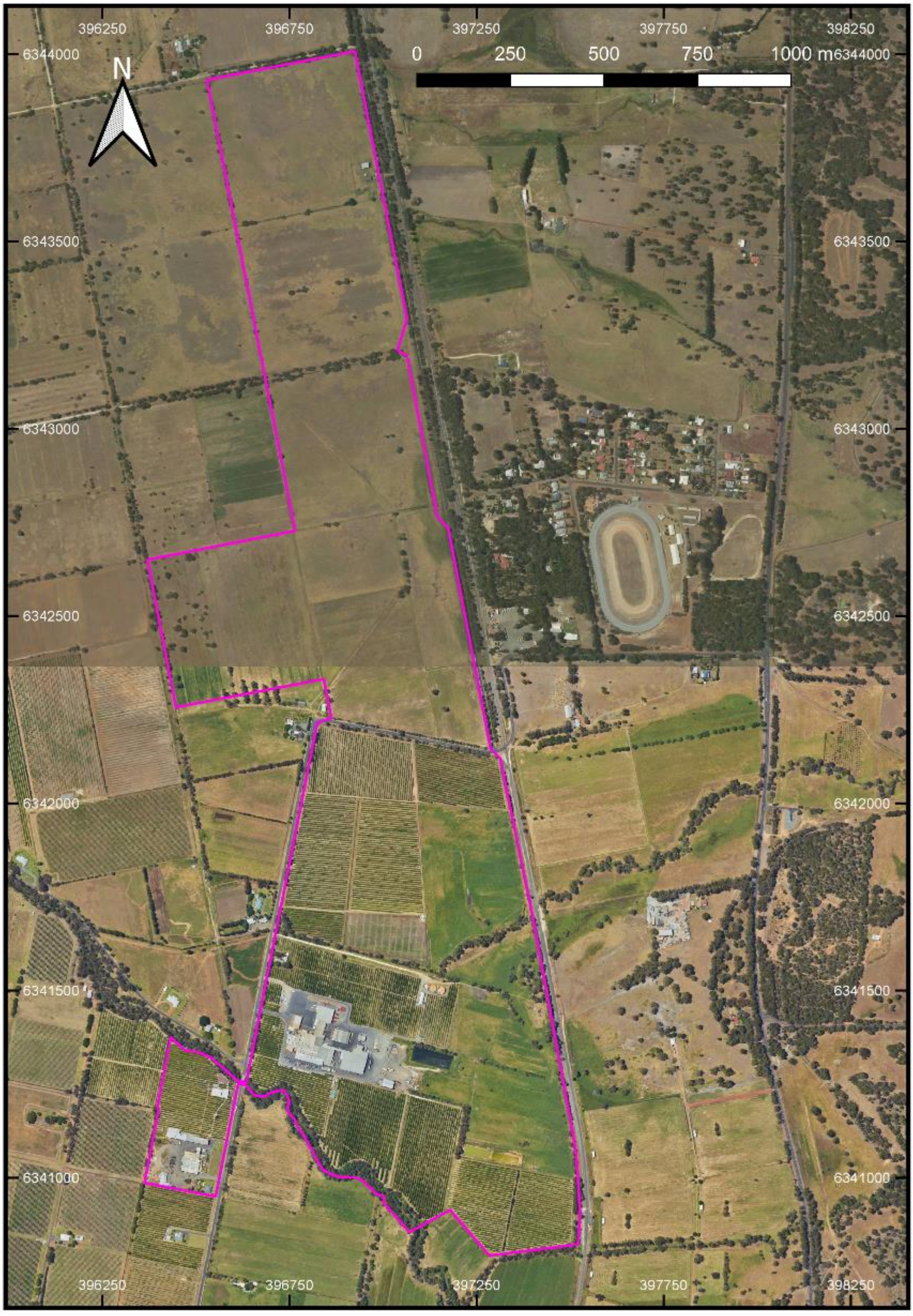
Term	Definition
Cu	means copper
DAF	Dissolved Air Floatation
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the EP Act
Discharge	has the same meaning given to that term under the EP Act
DWER	Department of Water and Environmental Regulation
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	Environmental Protection Regulations 1987 (WA)
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure has been constructed in accordance with the works approval.
Epan	Pan evaporation
ET	Evapotranspiration
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point
HCO_3^-	means bicarbonate ion
HDPE	means high-density polyethylene
Hg	means mercury
IPENZ, 2017	means the Institution of Professional Engineers of New Zealand (IPENZ), 2017. *Practice Note 21: Farm Dairy Effluent Ponds – Engineering Practice*. This document is available from: https://d2rjvl4n5h2b61.cloudfront.net/media/documents/Practice_Note_21_Farm_Dairy_Effluent_Ponds.pdf
irrigation area	refers to areas L4, L5, L7 and L8 as shown in Schedule 1:Maps – Irrigation Areas
K^+	means potassium ion
kL	means kilolitre
licence	refers to this document, which evidences the grant of a licence by the CEO under s.57 of the EP Act, subject to the conditions
licence holder	refers to the occupier of the premises being the person to whom this licence has been granted, as specified at the front of this licence
Mg^{2+}	means magnesium ion
Minimum Construction Requirements for Water Bores in Australia	refers to the document *Minimum Construction Requirements for Water Bores in Australia*, fourth edition, National Uniform Drillers Licensing Committee 2020, Fourth edition 2020
Na^+	means sodium ion
NATA	National Association of Testing Authorities, Australia
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
Ni	means nickel
pollution	has the same meaning given to that term under the EP Act

Term	Definition
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the map in Schedule 1 to this licence
prescribed premises	has the same meaning given to that term under the EP Act
primary activities	refers to the prescribed premises activities listed on the front of this licence as described in Schedule 2, at the locations shown in Schedule 1
qualified technician	means a qualified technician who: • holds a current certificate as a wastewater technician; and • has demonstrated experience in the installation of a wastewater plant.
rainfall event	means the amount of rainfall that occurs within a 24-hour period
SBR	Sequencing Batch Reactor
SO_4^{2-}	means sulfate ion
UV	means ultraviolet
Wastewater treatment plant area	means the area that surrounds the DAF, equalisation tank and SBR tanks as shown in Schedule 1:Maps – site layout map
Zn	means Zn

Schedule 1: Maps

Premises map

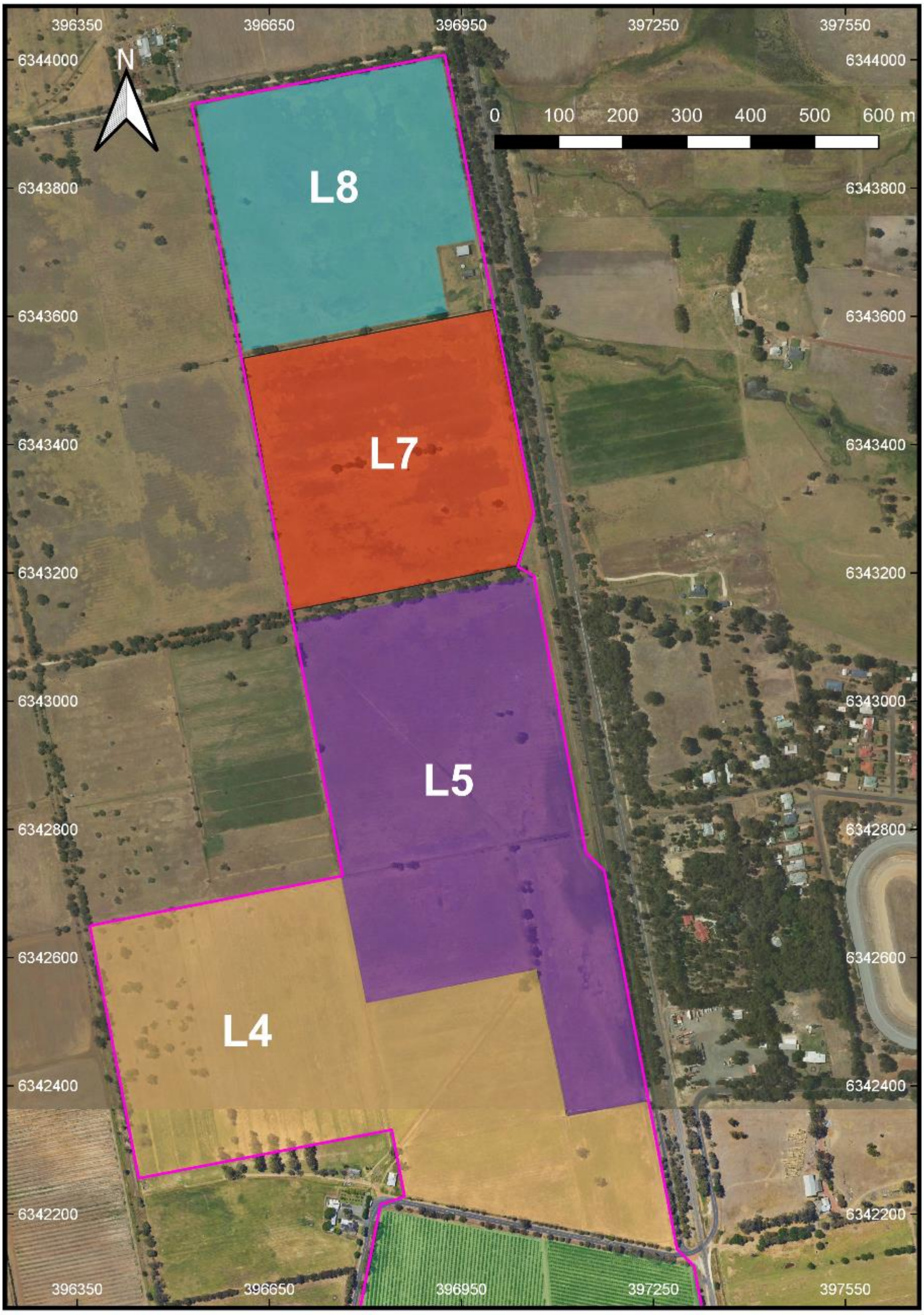
The Premises are shown in the map below. The pink line depicts the premises boundary.



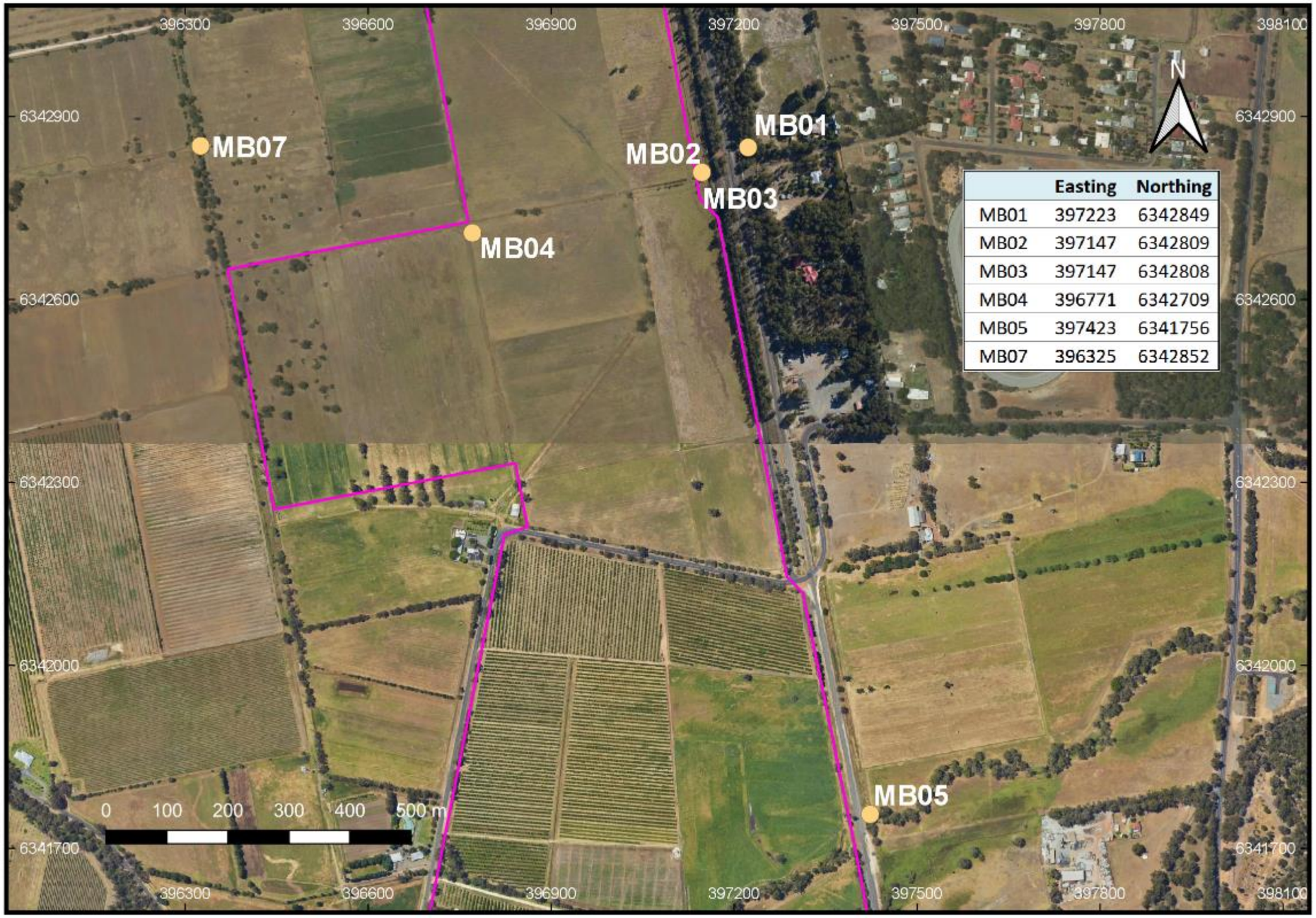
Site layout

Harvey Water WWTP infrastructure layout

Irrigation Areas

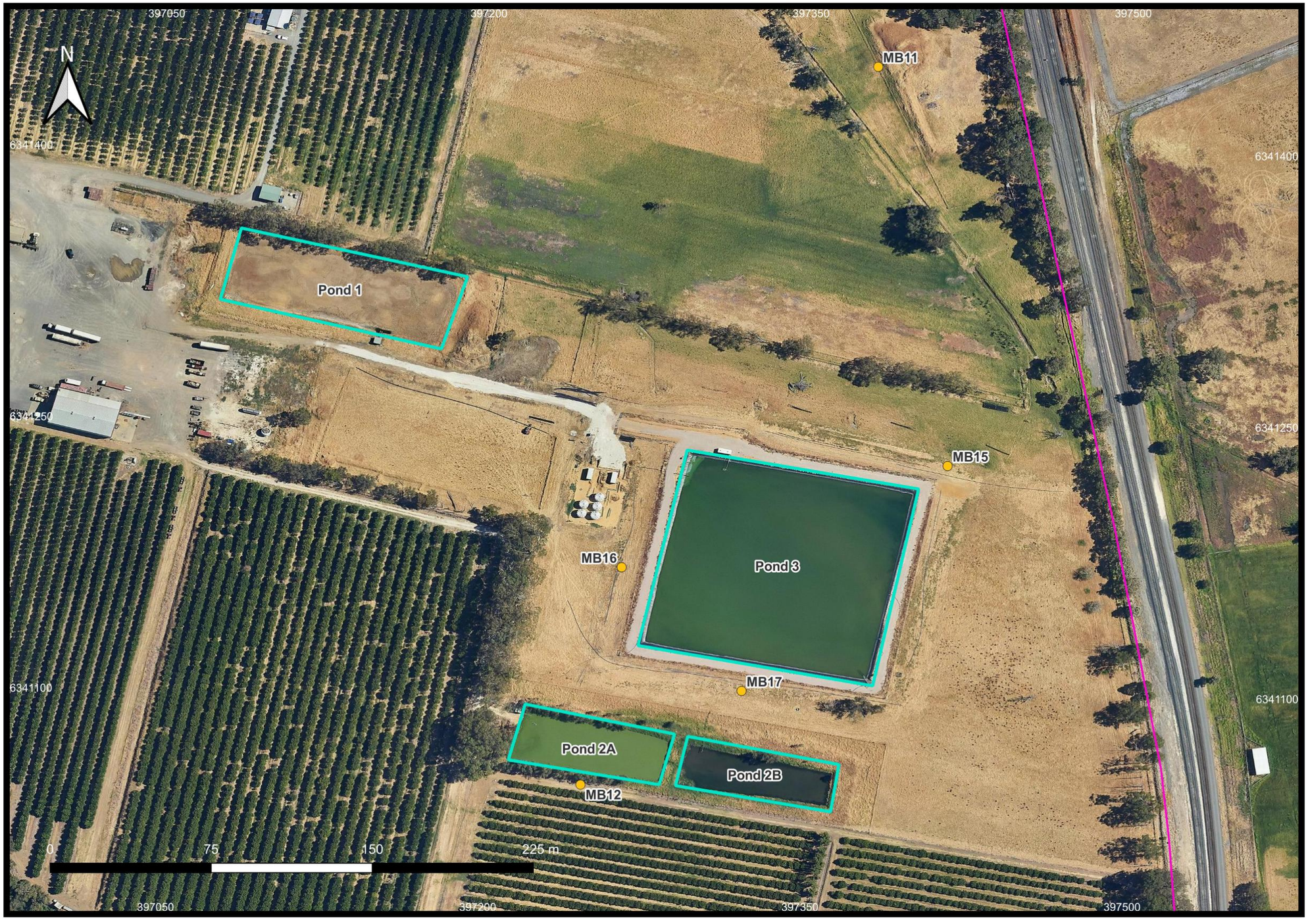


Groundwater monitoring bore locations map 1

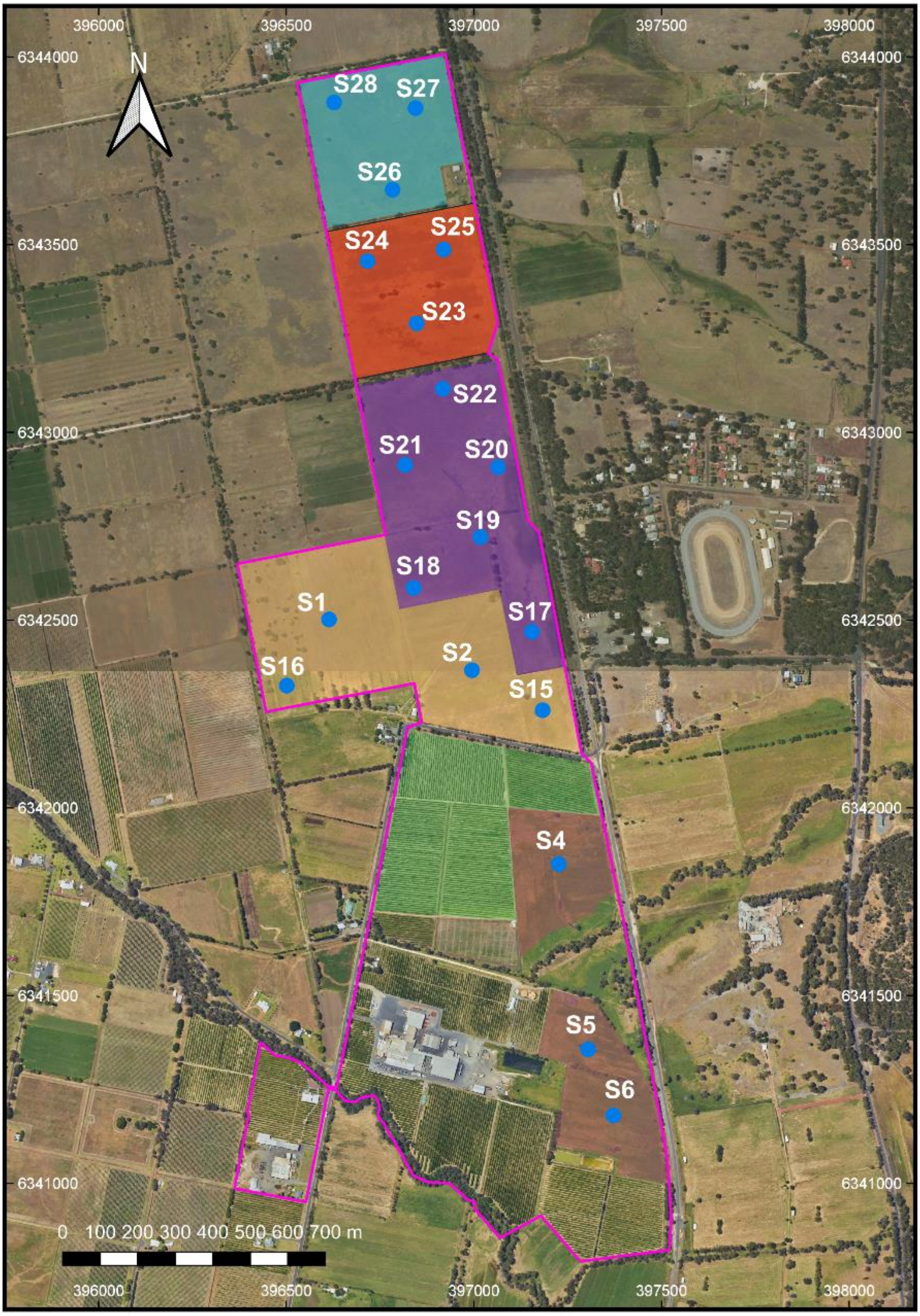


	Easting	Northing
MB01	397223	6342849
MB02	397147	6342809
MB03	397147	6342808
MB04	396771	6342709
MB05	397423	6341756
MB07	396325	6342852

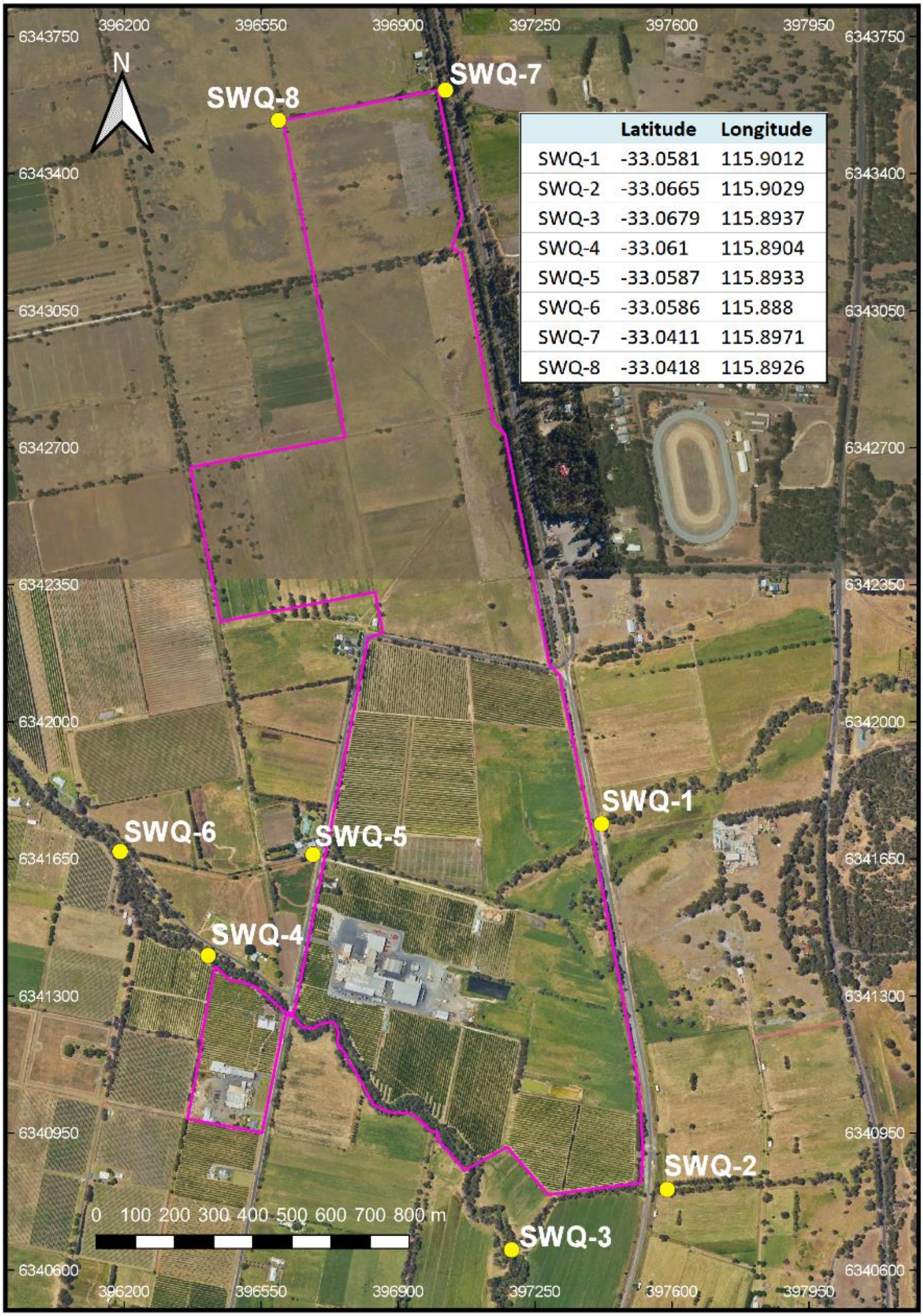
Groundwater monitoring bore locations map 2



Soil Monitoring Locations



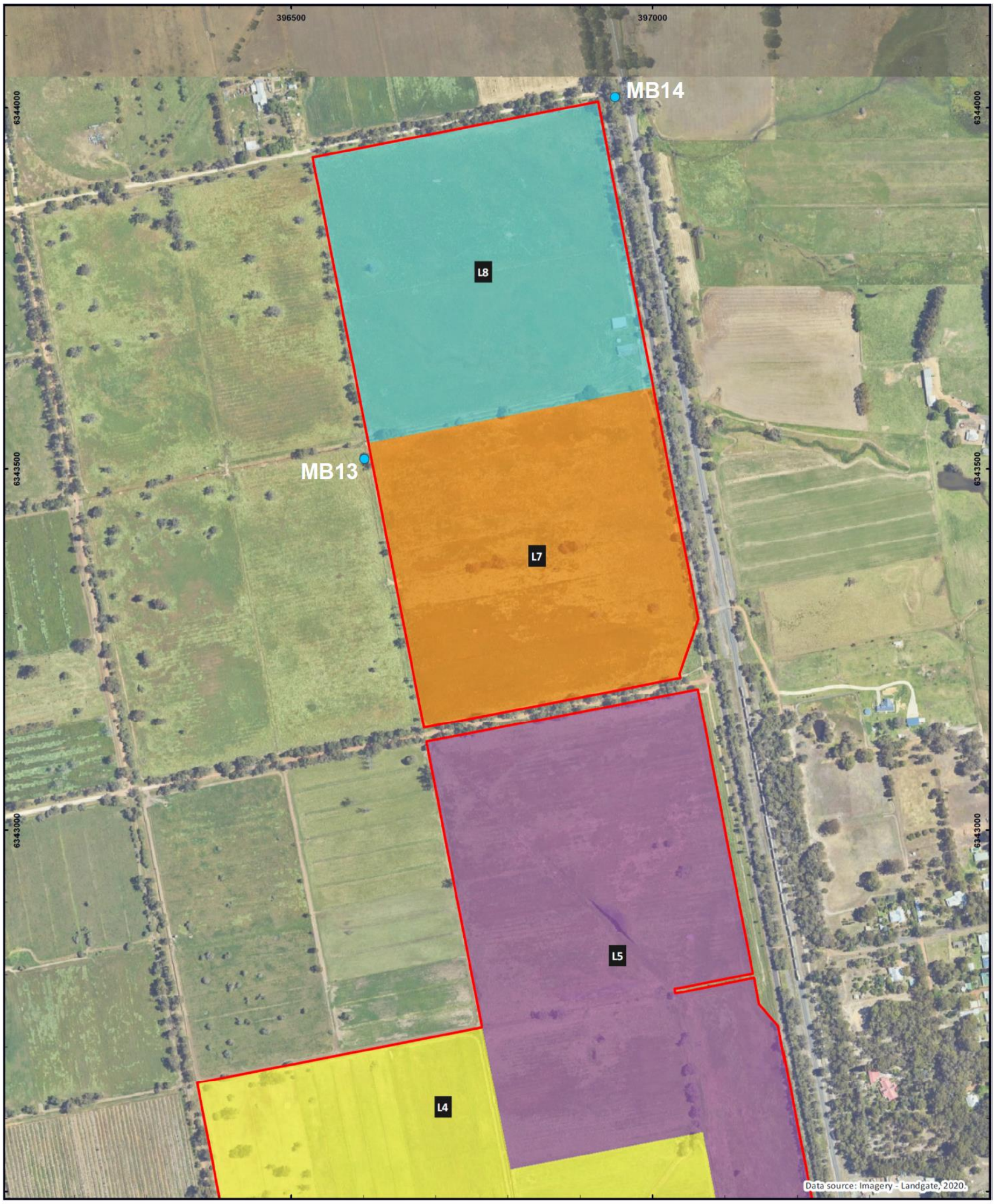
Surface Water Monitoring Locations



	Latitude	Longitude
SWQ-1	-33.0581	115.9012
SWQ-2	-33.0665	115.9029
SWQ-3	-33.0679	115.8937
SWQ-4	-33.061	115.8904
SWQ-5	-33.0587	115.8933
SWQ-6	-33.0586	115.888
SWQ-7	-33.0411	115.8971
SWQ-8	-33.0418	115.8926

Wastewater treatment area - secondary containment

Proposed groundwater monitoring bore locations



LEGEND

Premises Boundary

Irrigation Area

L4

L8

L7

L5

Additional Groundwater Monitoring Bore Location

LOCALITY

ADDITIONAL GROUNDWATER MONITORING WELL LOCATIONS

Third Street, Harvey

Winter Irrigation MP

Harvey Fresh Ltd

N

0 50 100 150 200 m

Scale @ A3: 1:5,000

Coordinate System: GDA 1994 MGA Zone 50, Projection: Transverse Mercator, Datum: GDA 1994

Prepared:	T Daymond
Reviewed:	H Royce
Project:	TE21018
Revision:	A
Date:	22/04/2021

Figure 15

talis consultants