



**Works approval number** W3016/2025/1

**Works approval holder** Wallcliffe House Pty Ltd  
**ACN** 611 627 340  
**Registered business address** Suite 2, 20-22 Stirling Highway  
NEDLANDS WA 6009

**Application number** APP-0029203  
**File number** INS-0003016  
**Duration** 19/12/2025 to 18/12/2030

**Date of issue** 19/12/2025

**Premises details**

Wallcliffe House Wastewater Treatment Plant  
Lot 101 Wallcliffe Road  
MARGARET RIVER WA 6285

Legal description -  
Part of Lot 101 on Deposited Plan 49026  
As defined by the map attached to the issued works approval

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed design capacity
Category 85: Sewage facility: premises – (a) On which sewage is treated (excluding septic tanks); or (b) From which treated sewage is discharged into land or into waters.	38.4 m <sup>3</sup> per day

This works approval is granted to the works approval holder, subject to the attached conditions, on 19 December 2025, by:

Adam Green  
A/MANAGER, WASTE INDUSTRIES  
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

## Works approval history

Date	Reference number	Summary of changes
19/12/2025	W3016/2025/1	APP-0029203. 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

#### Construction Environmental Management Plan (CEMP)

1. Prior to commencing construction of any infrastructure listed in condition 3, the works approval holder must submit a Construction Environmental Management Plan (CEMP) to the CEO.
2. The CEMP specified in condition 1 must include as a minimum:
  - (a) details of the potential sources of:
    - i. noise emissions;
    - ii. dust emissions; and
    - iii. sediment-laden runoff
 during construction works;
  - (b) provide mitigation and management measures to reduce and prevent the potential emissions listed under condition 2(a); and
  - (c) demonstrate how compliance with the *Environmental Protection (Noise) Regulations 1997* will be achieved.

#### Infrastructure and equipment

3. 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;
 

as set out in Table 1.

**Table 1: Design and construction / installation requirements**

Item	Infrastructure/ equipment	Design and construction / installation requirements	Infrastructure location
1.	Wastewater Treatment Plant (WWTP)	WWTP to be designed and constructed in accordance with Schedule 1, Figure 1 and Figure 4, and must meet the following specifications: <ol style="list-style-type: none"> <li>a) able to receive and treat a sewage inflow of up to 38.4 m<sup>3</sup>/day.</li> <li>b) Must comprise of the following equipment:                             <ol style="list-style-type: none"> <li>i. 23 kL WWTP below-ground Feed/Equalisation Tank.</li> </ol> </li> </ol>	As per Schedule 1, Figure 1 and Figure 4

<p>1.</p>	<p>Wastewater Treatment Plant (WWTP) (Cont.)</p>	<ul style="list-style-type: none"> <li>ii. MBR Feed Pump Station (DN1800 wet well) constructed deep enough to allow the Feed/Equalisation Tank to drain completely during periods of low flow and minimise the settlement of solids in the Feed/Equalisation Tank.</li> <li>iii. Membrane Bioreactor (MBR) tank containing: <ul style="list-style-type: none"> <li>• Fine screen (max volume 40 kL/day)</li> <li>• Denitrification chamber</li> <li>• Chemical dosing</li> <li>• Nitrification tank and membrane unit</li> <li>• Treated wastewater chamber (&gt;1 kL)</li> <li>• Sludge storage chamber (&gt;5 kL)</li> </ul> </li> <li>iv. Odour Treatment Unit.</li> <li>v. 7 kL Treated Wastewater Storage Tank</li> </ul> <p>c) Must be able to treat sewage to the following output emission standards:</p> <ul style="list-style-type: none"> <li>i. BOD <math>\leq</math>20 mg/L</li> <li>ii. TSS <math>&lt;</math>5 mg/L</li> <li>iii. Turbidity <math>\leq</math>5 NTU</li> <li>iv. pH 6.5-8.5</li> <li>v. Total N <math>&lt;</math>20 mg/L</li> <li>vi. Total P <math>&lt;</math>1 mg/L</li> <li>vii. <i>E. coli</i> <math>&lt;</math>1000 CFU/100 mL</li> </ul> <p>d) An alarm system must be installed to notify the operator in the event of:</p> <ul style="list-style-type: none"> <li>i. pump faults;</li> <li>ii. system faults</li> <li>iii. high tank levels; and</li> <li>iv. overflows.</li> </ul> <p>e) All tanks must be sealed; and</p> <p>f) WWTP must allow for manual operation if necessary.</p>	<p>As per Schedule 1, Figure 1 and Figure 4</p>
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Item	Infrastructure/ equipment	Design and construction / installation requirements	Infrastructure location
2.	Emergency storage	a) A minimum of 60 kL of emergency storage is to be provided for wastewater in the event of a WWTP system failure.	Upstream of WWTP
3.	Infiltration Structures  (TunnelWell Leach Drains)	<p>a) Must be designed and constructed to meet the following specifications:</p> <ul style="list-style-type: none"> <li>i. Two duty/standby below-ground modular TunnelWell leach drains located at the premises entry, each 18 m long, providing 18 kL storage capacity each, as shown in Figure 2.</li> <li>ii. An additional two duty/standby below-ground modular TunnelWell leach drains located in the arrivals paddock, each 19 m long, providing 19 kL storage capacity each, as shown in Figure 3.</li> <li>iii. Two (2) combined air relief/inspection points per leach drain.</li> <li>iv. Inlets to the TunnelWell leach drains must be designed to ensure that discharge of treated wastewater into the leach drains does not result in scouring of the leach drain's compacted sand foundation.</li> <li>v. Each leach drain must have an individual inlet control valve.</li> <li>vi. Must be designed so that flow can be directed to either leach drain area shown in Figure 1.</li> </ul> <p>b) The area where infiltration structures are to be placed must be excavated one metre below the proposed invert level of the structures and deep ripped a further one metre.</p> <p>c) Any solidified limestone or caprock shall be excavated one metre below the invert level of the infiltration structures and removed.</p> <p>d) The base of the excavation and excavation batters must be inspected by a geotechnical engineer to confirm removal of all limestone and caprock.</p> <p>e) The excavation shall be cross-ripped a further one metre deep.</p>	Leach Drains are to be positioned in pairs within each of the two areas shown in Schedule 1, Figure 1

Item	Infrastructure/ equipment	Design and construction / installation requirements	Infrastructure location
4.	Chemical Storage and Dosing	<ul style="list-style-type: none"> <li>a) Liquid chemical storage and dosing units must provide sufficient chemical storage for 28 days of peak operation.</li> <li>b) Chemicals must be stored in a designated area in above ground vessels located in a bunded area with a holding capacity of 110% of the total vessel/s contents.</li> <li>c) Each storage and dosing unit must be compliant with AS3780 and comprise a primary storage tank, secondary containment sump, dosing cabinet and dose pump.</li> </ul>	As shown in Schedule 1, Figure 4
5.	Items 1-4	<ul style="list-style-type: none"> <li>a) All sewage storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable, and free of leaks and defects.</li> <li>b) All sewage conveyance, storage and treatment infrastructure must be designed and constructed to ensure that stormwater does not enter the sewage and treated wastewater system or storage infrastructure.</li> </ul>	As shown in Schedule 1, Figure 1 and Figure 4
6.	Groundwater monitoring well MW4	<ul style="list-style-type: none"> <li>a) Groundwater monitoring well installation must be supervised by a suitably qualified person.</li> <li>b) Groundwater monitoring well must be designed and constructed in accordance with <i>ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring wells</i>.</li> <li>c) Well screen must target the part, or parts, of the aquifer most likely to be affected by contamination<sup>1</sup></li> <li>d) Soil samples must be collected and logged during the installation of the monitoring well.</li> <li>e) A record of the geology encountered must be described and classified in accordance with the Australian Standard Geotechnical Site Investigations AS1726-2017.</li> <li>f) Well construction details must be documented within a well construction log to demonstrate compliance with <i>ASTM D5092/D5092M-16</i>. The construction log 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.</li> </ul>	Identified as MW4 in Schedule 1, Figure 5

Item	Infrastructure/ equipment	Design and construction / installation requirements	Infrastructure location
6.	Groundwater monitoring well MW04  (Cont.)	<p>g) The installed monitoring well 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 should be kept of well development activities and included in the well construction log.</p> <p>h) The vertical (top of casing) and horizontal position of the monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor.</p> <p>i) 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.</p> <p>j) Must be constructed, developed (purged), and determined to be operational no later than 15 calendar days prior to the commencement of environmental commissioning activities under condition 9.</p>	Identified as MW04 in Schedule 1, Figure 5

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

### Emission controls

4. The works approval holder must control dust emissions from construction activities by applying water to unsealed roads and exposed surfaces or by using an equivalent dust suppression technique.
5. The works approval holder must ensure that:
  - (a) all reasonable and practicable measures are taken to ensure that no windblown waste escapes from the premises; and
  - (b) any windblown waste is collected on at least a weekly basis and returned to the premises or otherwise appropriately contained.
6. The works approval holder must:
  - (a) immediately recover, or remove and dispose of, spills of environmentally hazardous materials including fuel, oil, or other hydrocarbons, whether inside or outside an engineered containment system; and
  - (b) ensure that all material used for the recovery, removal, and/or disposal of environmentally hazardous materials is stored in an impermeable container prior to disposal at an appropriately authorised facility.

## Compliance reporting

7. The works approval holder must within 30 calendar days of completing construction and installation of all infrastructure and equipment required by condition 3:
  - (a) undertake an audit of their compliance with the requirements of condition 3; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
8. The Environmental Compliance Report required by condition 7, must include as a minimum the following:
  - (a) certification by a suitably qualified engineer that the items of infrastructure or component(s) thereof, as specified in condition 3, have been constructed in accordance with the relevant requirements specified in condition 3;
  - (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 3; 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 phase

### Environmental commissioning requirements and emission limits

9. The works approval holder may only commence environmental commissioning for an item of infrastructure listed in condition 3 once the Environmental Compliance Report has been submitted in accordance with condition 7 of this works approval.
10. Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 2 may only be carried out:
  - (a) in accordance with the corresponding commissioning requirements; and
  - (b) for the corresponding authorised commissioning duration as set out in Table 2.

**Table 2: Environmental commissioning requirements**

	Infrastructure	Commissioning requirements	Authorised commissioning duration
1.	WWTP	a) Volumetric flow meter must be maintained on the WWTP Treated Water Tank outlet to the TunnelWell Leach Drains. b) The MBR system must incorporate appropriate measures for managing suspended solids, including the use of a suitable flocculation agent where necessary, to ensure effective system performance and prevent operational issues such as clogging or reduced treatment efficiency. c) Screenings must be contained within a sealed container prior to removal to licensed disposal facility.	A period not exceeding 90 calendar days in aggregate

	Infrastructure	Commissioning requirements	Authorised commissioning duration
1.	WWTP (Cont.)	<ul style="list-style-type: none"> <li>d) Tanks must be maintained in good working order with sufficient volume for effective operation of the WWTP.</li> <li>e) Sludge build-up in the WWTP below-ground Feed Tank must be extracted via vacuum removal and disposed of by a licensed waste carrier to an appropriately licensed waste facility.</li> <li>f) Spills of wastewater or chemicals outside of a vessel/container must be cleaned up immediately.</li> <li>g) Treated wastewater in the Treated Wastewater Tank must be sampled for water quality in accordance with condition 13.</li> <li>h) Treated wastewater that does not meet the water quality requirements of condition 12 must not be discharged onto the premises and must be removed to a suitably licensed facility for disposal.</li> </ul>	A period not exceeding 90 calendar days in aggregate
2.	Infiltration Structures (TunnelWell Leach Drains)	<ul style="list-style-type: none"> <li>a) Infiltration structures must be well maintained to prevent clogging and to ensure that they are working efficiently.</li> <li>b) No more than 38.4 m<sup>3</sup> per day of treated wastewater to be applied across the infiltration structures.</li> <li>c) Infiltration of treated wastewater must not occur on land that is waterlogged.</li> <li>d) Infiltration must be managed to prevent ponding and pooling of treated wastewater on the ground surface.</li> <li>e) Tunnelwell Leach Drains must be managed by the control system to alternate duty cycles based on operating time.</li> <li>f) Flow must be redirected when a high-level condition is detected in any individual leach drain. Upon detection, the system must automatically switch discharge to an alternate leach drain to ensure continued operation and prevent overflow.</li> </ul>	A period not exceeding 90 calendar days in aggregate
3.	Chemical storage	<ul style="list-style-type: none"> <li>a) All chemicals must be stored separately within aboveground vessels, contained within a bunded area of a capacity of 110% of the total vessel/s contents.</li> <li>b) Chemicals must be stored in accordance with Australian Standards AS 1940, AS 3780 and/or AS 3833 depending on the type of chemical stored.</li> </ul>	A period not exceeding 90 calendar days in aggregate

11. During environmental commissioning, the works approval holder must ensure that the emission specified in Table 3, is discharged only from the corresponding discharge points and only at the corresponding discharge point locations.

**Table 3: Authorised discharge points during commissioning**

Emission	Discharge points	Discharge point locations
Treated wastewater	Infiltration Structures (TunnelWell Leach Drains)	Leach Drains as labelled in Schedule 1, Figure 1

12. During commissioning, the works approval holder must ensure that treated wastewater, when monitored in accordance with condition 13, meets the water quality limits specified in Table 4, before it is discharged to the authorised discharge point in Table 3.

**Table 4: Water quality discharge limits during time limited operations**

Discharge point	Parameter	Limit
Infiltration structures	Biochemical oxygen demand (BOD)	≤20 mg/L
	Total Suspended Solids (TSS)	<5 mg/L
	pH	6.5 – 8.5
	Total Nitrogen (TN)	<20 mg/L
	Total Phosphorus (TP)	<1 mg/L
	<i>E. coli</i>	<1000 cfu/100 ml

**Monitoring during environmental commissioning**

13. The works approval holder must monitor treated wastewater quality and discharge volumes during environmental commissioning in accordance with Table 5.

**Table 5: Emissions and treated wastewater quality monitoring during environmental commissioning**

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit	Method
Infiltration structures	Flow meter	Volume of treated wastewater discharged	Continuous	Cumulative daily	kL/day	N/A
	Treated effluent tank	<i>E. coli</i>	Weekly	Spot sample	cfu/100mL	AS 5667.1 and AS 5667.10
		Biochemical Oxygen Demand			mg/L	
Total Suspended Solids						

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit	Method
		Total Nitrogen				
		Total Phosphorus				
		pH <sup>1</sup>	Continuous or daily	N/A	pH units	
Infiltration structures	Treated effluent tank	Major ions (sodium, potassium, calcium, magnesium, chloride, bicarbonate and sulfate ions)	Weekly	Spot sample	mg/L	AS 5667.1 and AS 5667.10

Note 1: non- NATA *in situ* testing permitted

14. For the monitoring activity required by condition 13, the works approval holder must:
- (a) record the results;
  - (b) handle and preserve all water samples collected during monitoring in accordance with AS 5667.1 and AS5667.10; and
  - (c) have analysis conducted by a laboratory with current National Association of Testing Authorities (NATA) accreditation for the parameters specified, unless otherwise specified in Table 5.

### Environmental commissioning report

15. The works approval holder must submit to the CEO an Environmental Commissioning Report within 30 calendar days of the completion date of the environmental commissioning for all items of infrastructure specified in Table 2.
16. The works approval holder must ensure the Environmental Commissioning Report required by condition 15 of this works approval includes the following:
- (a) a summary of the environmental commissioning activities undertaken, including date(s) for commencement of commissioning, timeframes and amount of wastewater processed;
  - (b) a summary of the treated effluent monitoring results recorded in accordance with condition 13;
  - (c) copies of laboratory reports for treated effluent monitoring results recorded in accordance with condition 13;
  - (d) a summary of the environmental performance of each item of infrastructure or equipment as installed, which at a minimum includes records detailing:
    - i. a comparison of the treated effluent monitoring results against discharge limits specified in condition 12; and

- ii. assessment of WWTP and infiltration structure performance against operational requirements in condition 10.
- (e) a review of the works approval holder’s performance and compliance against the conditions of this works approval; and
- (f) 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.

## Initial Operations phase

### Commencement

- 17. The works approval holder may only commence operations for an item of infrastructure identified in condition 3 where the Environmental Commissioning Report for that item of infrastructure as required by condition 15 has been submitted by the works approval holder.
- 18. The works approval holder may conduct initial operations for an item of infrastructure identified in condition 3 for a period of 730 days (24 months) from the day the works approval holder meets the requirements of condition 17 for that item of infrastructure.

### Operational requirements and emission limits

- 19. The works approval holder must ensure that the premises infrastructure and equipment listed in Table 6 and located at the corresponding infrastructure location, is maintained and operated in accordance with the corresponding operational requirement set out in Table 6.

**Table 6: Infrastructure and equipment requirements during operation**

	Infrastructure and equipment	Operational requirements	Infrastructure location
1.	WWTP	<ul style="list-style-type: none"> <li>a) Volumetric flow meter must be maintained on the WWTP Treated Water Tank outlet to the TunnelWell Leach Drains.</li> <li>b) The MBR system must incorporate appropriate measures for managing suspended solids, including the use of a suitable flocculation agent where necessary, to ensure effective system performance and prevent operational issues such as clogging or reduced treatment efficiency.</li> <li>c) Screenings must be contained within a sealed container prior to removal to licensed disposal facility.</li> <li>d) Tanks must be maintained in good working order with sufficient volume for effective operation of the WWTP.</li> <li>e) Sludge build-up in the WWTP below-ground Feed Tank must be extracted via vacuum removal and disposed of by a licensed waste carrier to an appropriately licensed waste facility.</li> <li>f) Spills of wastewater or chemicals outside of a vessel/container must be cleaned up immediately.</li> </ul>	As per Schedule 1, Figure 1 and Figure 4

	Infrastructure and equipment	Operational requirements	Infrastructure location
2.	Infiltration Structures (TunnelWell Leach Drains)	<ul style="list-style-type: none"> <li>a) Infiltration structures must be well maintained to prevent clogging and to ensure that they are working efficiently.</li> <li>b) No more than 38.4 m<sup>3</sup> per day of treated wastewater to be applied across the infiltration structures.</li> <li>c) Infiltration of treated wastewater must not occur on land that is waterlogged.</li> <li>d) Infiltration must be managed to prevent ponding and pooling of treated wastewater on the ground surface.</li> <li>e) Tunnelwell Leach Drains must be managed by the control system to alternate duty cycles based on operating time.</li> <li>f) Flow must be redirected when a high-level condition is detected in any individual leach drain. Upon detection, the system must automatically switch discharge to an alternate leach drain to ensure continued operation and prevent overflow.</li> </ul>	As per Schedule 1, Figure 1
3.	Chemical storage	<ul style="list-style-type: none"> <li>a) All chemicals must be stored separately within aboveground vessels, contained within a bunded area of a capacity of 110% of the total vessel/s contents.</li> <li>b) Chemicals must be stored in accordance with Australian Standards AS 1940, AS 3780 and/or AS 3833 dependent on the type of chemical stored.</li> </ul>	As per Schedule 1, Figure 4

20. The works approval holder must ensure that the emission(s) specified in Table 7, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

**Table 7: Authorised discharge points during initial operations**

Emission	Discharge points	Discharge point locations
Treated wastewater	Infiltration Structures (TunnelWell Leach Drains)	Leach Drains as labelled in Schedule 1, Figure 1

21. The works approval holder must ensure that treated wastewater, when monitored in accordance with condition 22, meets the water quality limits specified in Table 8, before it is discharged to the authorised discharge point in Table 7.

**Table 8: Water quality discharge limits during initial operations**

Discharge point	Parameter	Limit
Infiltration structures	Biochemical oxygen demand (BOD)	≤20 mg/L
	Total Suspended Solids (TSS)	<5 mg/L
	pH	6.5 – 8.5

Discharge point	Parameter	Limit
Infiltration structures	Total Nitrogen (TN)	<20 mg/L
	Total Phosphorus (TP)	<1 mg/L
	<i>E. coli</i>	<1000 cfu/100 ml

### Treated wastewater quality monitoring during initial operations

22. The works approval holder must monitor treated wastewater quality and discharge volumes during initial operations in accordance with Table 9.

**Table 9: Emissions and treated wastewater quality monitoring during initial operations**

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit	Method
Infiltration structures	Flow meter	Volume of treated wastewater discharged	Continuous	Cumulative daily	kL/day	N/A
	Treated effluent tank	<i>E. coli</i>	Weekly	Spot sample	cfu/100mL	AS 5667.1 and AS 5667.10
		Biochemical Oxygen Demand			mg/L	
		Total Suspended Solids				
		Total Nitrogen				
		Total Phosphorus				
	pH <sup>1</sup>	Continuous or daily	N/A	pH units		
Major ions (sodium, potassium, calcium, magnesium, chloride, bicarbonate and sulfate ions)	Weekly	Spot sample	mg/L			

Note 1: non- NATA *in situ* testing permitted

23. For the monitoring activity required by condition 22, the works approval holder must:
- (a) record the results;
  - (b) handle and preserve all water samples collected during monitoring in accordance with AS 5667.1 and AS5667.10; and
  - (c) have analysis conducted by a laboratory with current National Association of Testing Authorities (NATA) accreditation for the parameters specified, unless otherwise specified in Table 9.

**Groundwater and surface water quality monitoring during initial operations**

24. The works approval holder must monitor the groundwater during initial operations for concentrations of the identified parameters in accordance with Table 10.

**Table 10: Monitoring of ambient concentrations during initial operations**

Monitoring location	Parameter	Unit	Frequency	Method
Groundwater monitoring wells (MW1, MW2, MW3, and MW4) as shown in Schedule 1, Figure 5	Standing water level <sup>1</sup>	mAHD mBGL	Quarterly	Spot sample in accordance with AS 5667.11
	pH <sup>1</sup>	-		
	Electrical conductivity <sup>1</sup>	µS/cm		
	Biochemical oxygen demand	mg/L		
	Nitrate - Nitrogen	mg/L		
	Ammonium			
	Total nitrogen			
	Total phosphorus			
	Total dissolved solids			
	Dissolved oxygen <sup>1</sup>			
Major ions (sodium, potassium, calcium, magnesium, chloride, bicarbonate and sulfate ions)				

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

25. The works approval holder must monitor surface water during initial operations for concentrations of the identified parameters in accordance with Table 11.

**Table 11: Monitoring of surface water during initial operations**

Monitoring location	Parameter	Unit	Frequency	Method
Upstream and Downstream surface water monitoring locations (SWU and SWD) as shown in Schedule 1, Figure 5	Standing water level <sup>1</sup>	mAHD	Quarterly	Spot sample in accordance with AS 5667.6
	pH <sup>1</sup>	-		
	Electrical conductivity <sup>1</sup>	µS/cm		
	Biochemical oxygen demand	mg/L		
	Nitrate - Nitrogen	mg/L		
	Ammonium			
	Total nitrogen			
	Total phosphorus			
	Total dissolved solids			
	Dissolved oxygen <sup>1</sup>			
	Major ions (sodium, potassium, calcium, magnesium, chloride, bicarbonate and sulfate ions)			

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

- 26.** For the monitoring activities required by conditions 24 and 25, the works approval holder must:
- record the results;
  - handle and preserve all water samples collected during monitoring in accordance with AS5667.1; and
  - have analysis conducted by a laboratory with current National Association of Testing Authorities (NATA) accreditation for the parameters specified, unless otherwise specified in Table 10 and Table 11.

### Compliance reporting

- 27.** The works approval holder must submit to the CEO within 30 calendar days from the conclusion of the initial operations period specified in condition 18, a report on the performance of the WWTP.
- 28.** The works approval holder must ensure that the report required by condition 27 includes the following:
- a summary of the operations, including timeframes and amount of wastewater processed;
  - a summary of the environmental performance of all infrastructure as constructed or installed (as applicable), which includes records detailing:
    - a comparison of the treated wastewater monitoring results against discharge limits specified in condition 21; and

- ii. assessment of the infiltration structures performance against operational requirements in condition 19.
- (c) a groundwater and surface water monitoring report demonstrating compliance with conditions 24 and 25, and including:
  - i. a clear statement of the scope of work carried out;
  - ii. a description of the field methodologies employed;
  - iii. a summary of the field and laboratory quality assurance/quality control (QA/QC) program;
  - iv. copies of the field monitoring records and field QA/QC documentation;
  - v. an assessment of reliability of field procedures and laboratory results; and
  - vi. a tabulated summary of results, as well as all raw data provided in an accompanying Microsoft Excel spreadsheet digital document/file (or a compatible equivalent digital document/file), with all results being clearly referenced to laboratory certificates of analysis;
- (d) a review of performance and compliance against the conditions of the works approval;
- (e) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures the works approval holder will take to meet them, and what timeframes will be required to implement these measures; and
- (f) an operation and maintenance agreement between the works approval holder and a qualified technician, outlining the arrangements for ongoing maintenance of the WWTP.

## 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 3;
  - (b) any maintenance of infrastructure that is performed in the course of complying with conditions 10 and 19;
  - (c) monitoring programmes undertaken in accordance with conditions 13, 22, 24 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 12 have the meanings defined therein.

**Table 12: Definitions**

Term	Definition
ACN	means Australian Company Number
AS 1940	means Australian Standard 1940 The storage and handling of flammable and combustible liquids.
AS 3780	means Australian Standard 3780 The storage and handling of corrosive substances.
AS 3833	means Australian Standard/New Zealand Standard 3833 The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers.
AS 5667.1	means Australian Standard/New Zealand Standard 5667.1 Water quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.
AS 5667.4	means Australian Standard/New Zealand Standard 5667.4 Water quality – Sampling – Guidance on sampling from lakes, natural and man-made.
AS 5667.10	means the Australian Standard AS/NZS 5667.10 Water Quality – Sampling – Guidance on sampling of wastewater.
AS 5667.11	means Australian Standard/New Zealand Standard 5667.11 Water quality – Sampling – Guidance on sampling of groundwaters.
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means:  Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.

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	<i>Environmental Protection Act 1986 (WA).</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA).</i>
FRP	means Fiber-reinforced polymer
GRP	means Glass Reinforced Plastic
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.
prescribed premises	has the same meaning given to that term under the EP Act.
Suitably qualified engineer	<p>Means a person who:</p> <ul style="list-style-type: none"> <li>(a) holds a Bachelor of Engineering degree recognised by Engineers Australia; and</li> <li>(b) has a minimum of five years of experience working in a supervisory role in civil or structural engineering; and</li> <li>(c) is employed by an independent third party external to the Works Approval Holder's business;</li> </ul> <p>or is otherwise approved in writing by the CEO to act in this capacity.</p>
Suitably qualified person	<p>means a person who:</p> <ul style="list-style-type: none"> <li>(a) holds a bachelors degree in environmental science, geology or hydrogeology; and</li> <li>(b) has a minimum of three years of experience supervising drilling and installation of groundwater monitoring wells.</li> </ul>

Term	Definition
Initial operations phase	means the period during which the works approval holder is authorised to operate the infrastructure and equipment identified under this works approval following completion of environmental commissioning, subject to the relevant conditions and time limits specified in this works approval.
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.

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**END OF CONDITIONS**

# Schedule 1: Maps

## Premises map

The boundary of the prescribed premises is shown in the map below.

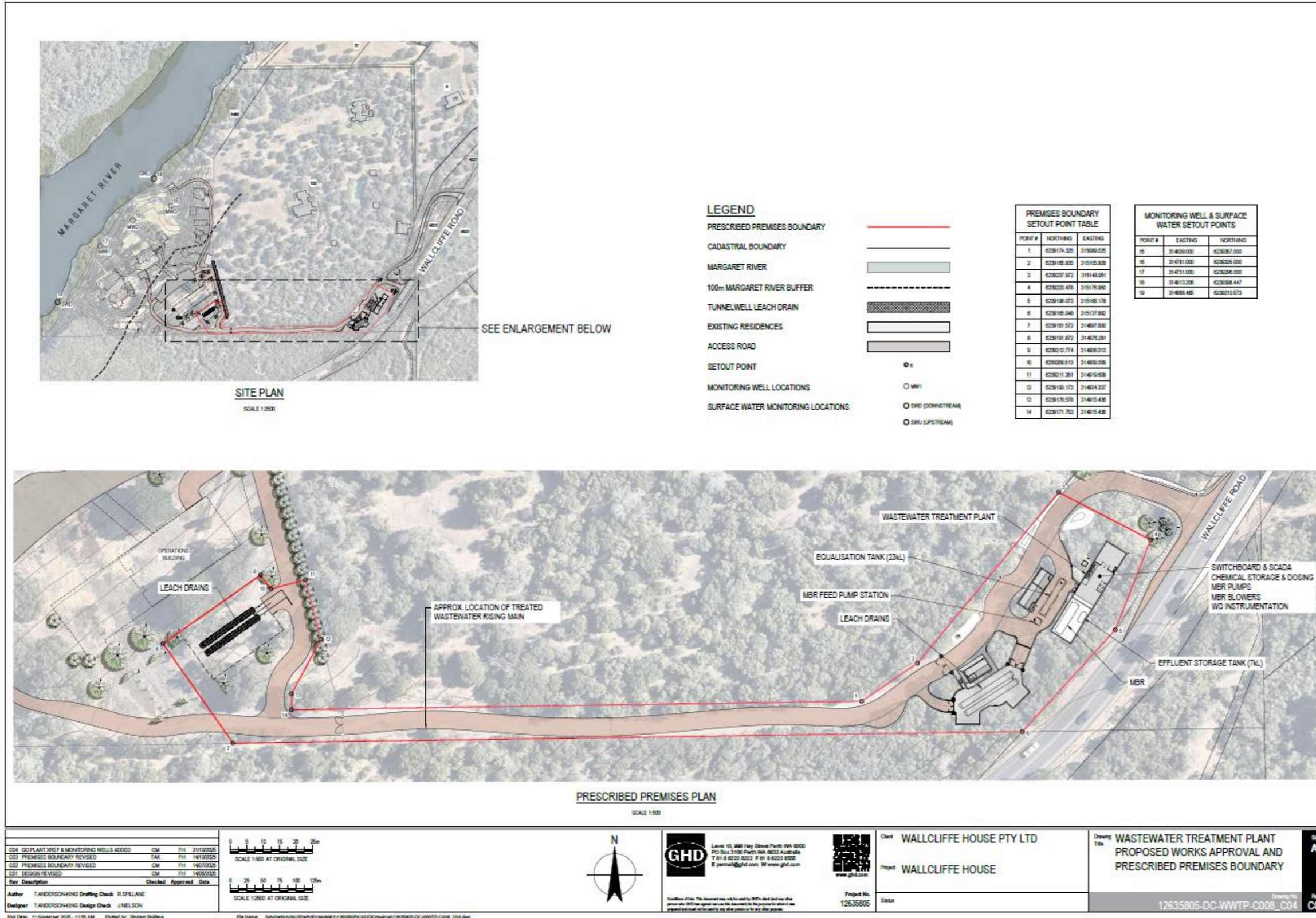


Figure 1: Map of the boundary of the prescribed premises

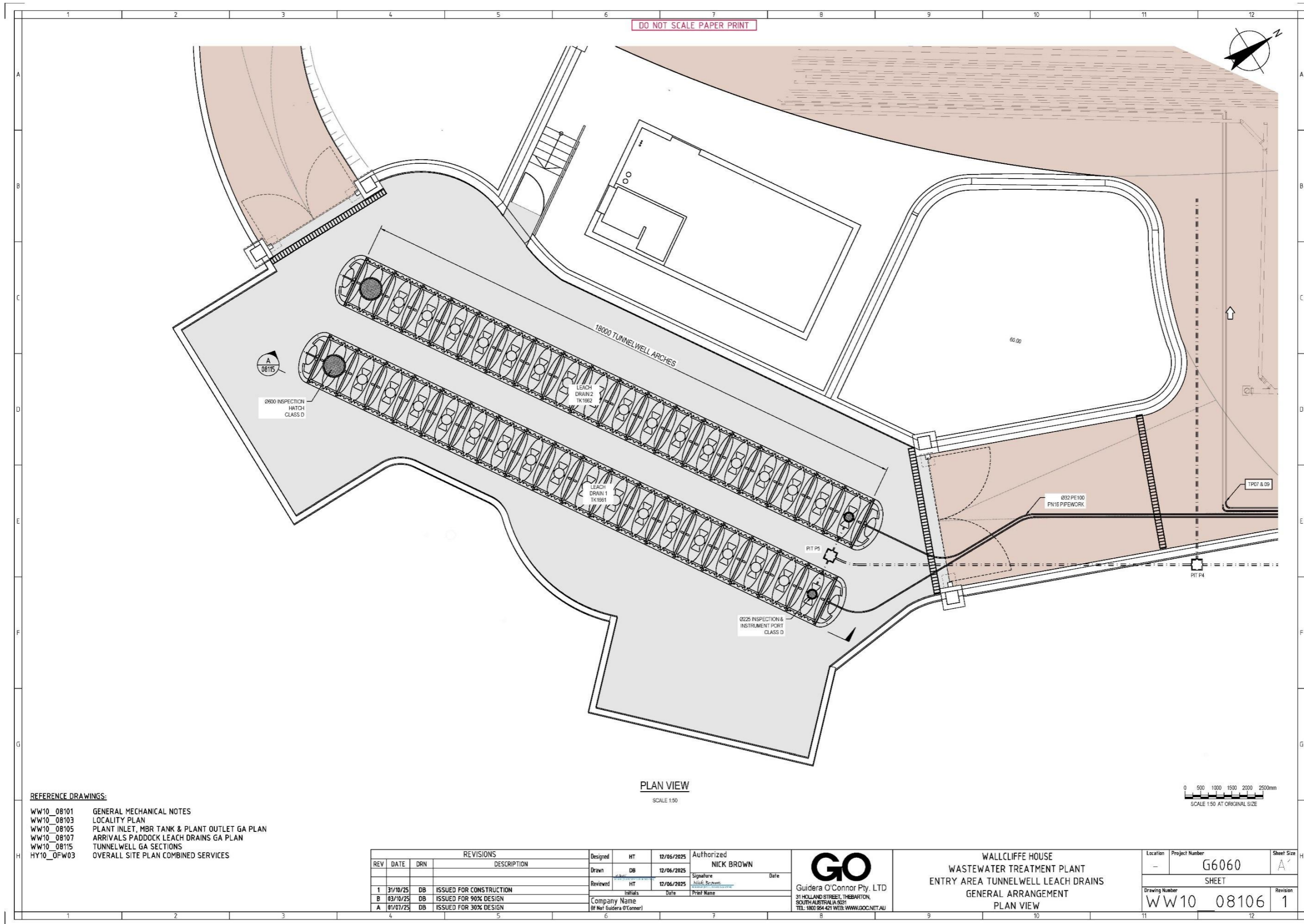
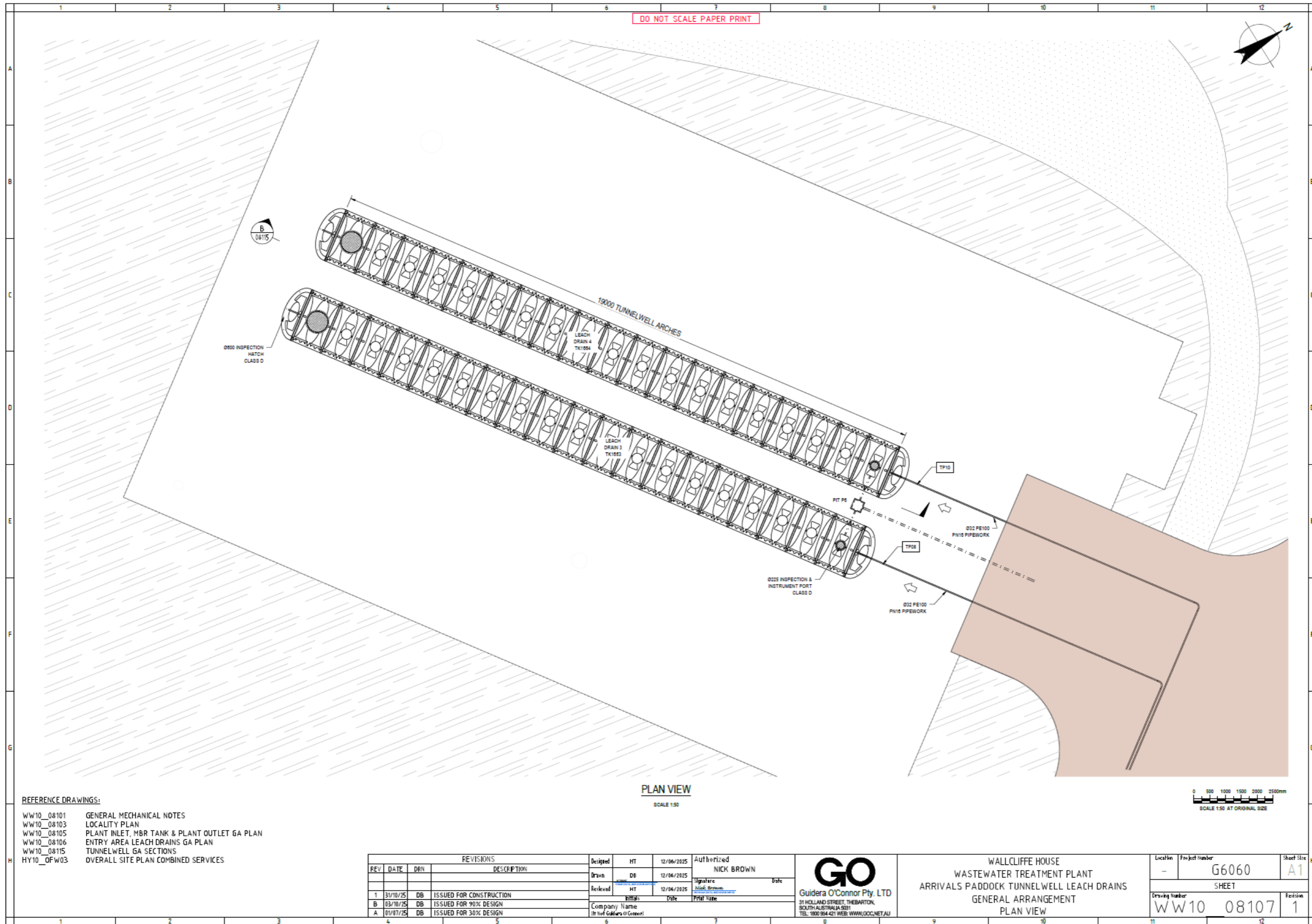


Figure 2: Entry Area Tunnelwell leach drains



REFERENCE DRAWINGS:

- WW10\_08101 GENERAL MECHANICAL NOTES
- WW10\_08103 LOCALITY PLAN
- WW10\_08105 PLANT INLET, MBR TANK & PLANT OUTLET GA PLAN
- WW10\_08106 ENTRY AREA LEACH DRAINS GA PLAN
- WW10\_08115 TUNNELWELL GA SECTIONS
- HY10\_OFW03 OVERALL SITE PLAN COMBINED SERVICES

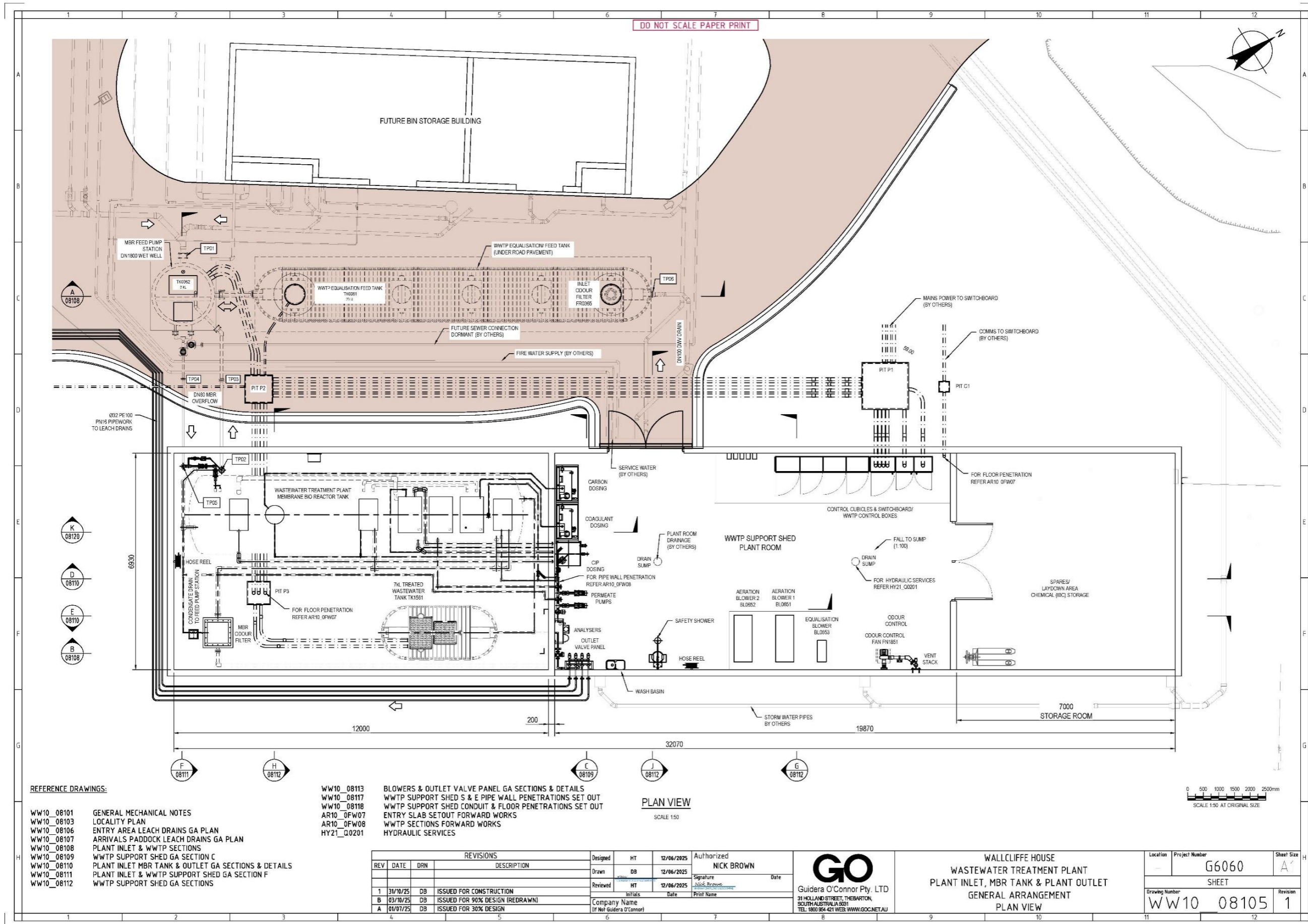
REVISIONS				Designed	HT	12/06/2025	Authorized
REV	DATE	DRN	DESCRIPTION	Drawn	DB	12/06/2025	NICK BROWN
1	31/10/25	DB	ISSUED FOR CONSTRUCTION	Reviewed	HT	12/06/2025	
B	03/10/25	DB	ISSUED FOR 90% DESIGN				
A	01/07/25	DB	ISSUED FOR 30% DESIGN				

**GO**  
 Guidera O'Connor Pty. LTD  
 31 HOLLAND STREET, THEBARTON,  
 SOUTH AUSTRALIA 5031  
 TEL: 1800 984 421 WEB: WWW.GOC.NET.AU

WALLCLIFFE HOUSE  
 WASTEWATER TREATMENT PLANT  
 ARRIVALS PADDOCK TUNNELWELL LEACH DRAINS  
 GENERAL ARRANGEMENT  
 PLAN VIEW

Location	Project Number	Sheet Size
-	G6060	A1
SHEET		
Drawing Number	Revision	
WW10_08107	1	

Figure 3: Arrivals Paddock Tunnelwell leach drains



REFERENCE DRAWINGS:

- WW10\_08101 GENERAL MECHANICAL NOTES
- WW10\_08103 LOCALITY PLAN
- WW10\_08106 ENTRY AREA LEACH DRAINS GA PLAN
- WW10\_08107 ARRIVALS PADDOCK LEACH DRAINS GA PLAN
- WW10\_08108 PLANT INLET & WWTP SECTIONS
- WW10\_08109 WWTP SUPPORT SHED GA SECTION C
- WW10\_08110 PLANT INLET MBR TANK & OUTLET GA SECTIONS & DETAILS
- WW10\_08111 PLANT INLET & WWTP SUPPORT SHED GA SECTION F
- WW10\_08112 WWTP SUPPORT SHED GA SECTIONS

- WW10\_08113 BLOWERS & OUTLET VALVE PANEL GA SECTIONS & DETAILS
- WW10\_08117 WWTP SUPPORT SHED S & E PIPE WALL PENETRATIONS SET OUT
- WW10\_08118 WWTP SUPPORT SHED CONDUIT & FLOOR PENETRATIONS SET OUT
- AR10\_0FW07 ENTRY SLAB SETOUT FORWARD WORKS
- AR10\_0FW08 WWTP SECTIONS FORWARD WORKS
- HY21\_0Q201 HYDRAULIC SERVICES

PLAN VIEW

SCALE 1:50

REVISIONS				Designed	HT	12/06/2025	Authorized
REV	DATE	DRN	DESCRIPTION	Drawn	DB	12/06/2025	NICK BROWN
1	31/10/25	DB	ISSUED FOR CONSTRUCTION	Reviewed	HT	12/06/2025	<i>Nick Brown</i>
B	03/10/25	DB	ISSUED FOR 90% DESIGN (REDRAWN)	Initials			
A	01/07/25	DB	ISSUED FOR 30% DESIGN	Company Name	(Of Net Guidara O'Connor)		

**GO**  
 Guidara O'Connor Pty. LTD  
 31 HOLLAND STREET, THEBARTON,  
 SOUTH AUSTRALIA 5031  
 TEL: 1800 854 421 WEB: WWW.GOONETAU

WALLCLIFFE HOUSE  
 WASTEWATER TREATMENT PLANT  
 PLANT INLET, MBR TANK & PLANT OUTLET  
 GENERAL ARRANGEMENT  
 PLAN VIEW

Location	Project Number	Sheet Size
	G6060	A1
SHEET		
Drawing Number	Revision	
WW10_08105	1	

Figure 4: WWTP equipment layout

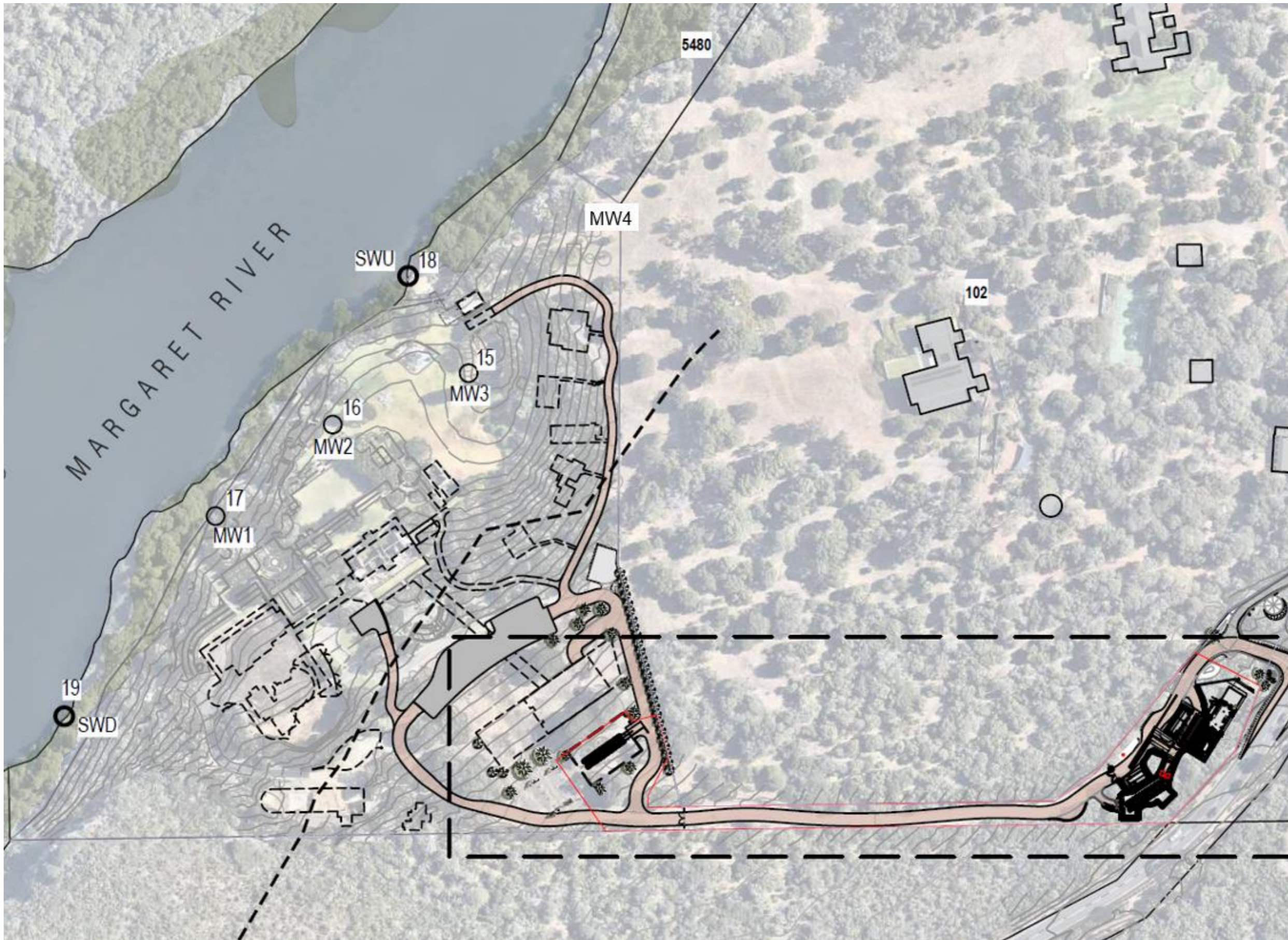


Figure 5: Groundwater and surface water monitoring locations