Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6944/2024/1
Works approval holder	Studio Schools Australia Ltd
ACN	637 122 644
Registered business address	c/o Carbon Group 24 Hasler Road Osbourne Park WA 6017
DWER file number	DER2024/000262
Duration	30/08/2024 to 30/08/2029
Date of issue	30/08/2024
Premises details	Manjali School Wastewater Treatment Plant Legal description - Part of Lot 1701 on Deposited Plan 419014 Bunuba Native Title As defined by the coordinates in Schedule 2

Prescribed premises category description **(Schedule 1, *Environmental Protection Regulations 1987*)**	**Assessed production / design capacity**
Category 85 Sewage facility: premises — *(a) on which sewage is treated (excluding septic tanks); or* *(b) from which treated sewage is discharged onto land or into waters.*	75 m^3/day

This works approval is granted to the works approval holder, subject to the attached conditions, on 30 August 2024, by:

Adam Harbeck
Digitally signed by Adam Harbeck
Date: 2024.08.30 08:27:04 +08'00'

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

Works approval history

Date	Reference number	Summary of changes
30/08/2024	W6944/2024/1	Works approval granted.

Interpretation

In this works approval:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

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

(d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:

(i) if dated, refers to that particular version; and

(ii) if not dated, refers to the latest version and therefore may be subject to change over time;

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

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

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

Works approval conditions

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

Construction phase

Infrastructure and equipment

1. The works approval holder must:

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

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

(c) at the corresponding infrastructure location; and

as set out in Table 1.

Table 1: Design and construction / installation requirements.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Manjali School Wastewater Treatment Plant (WWTP)	WWTP to be constructed to meet the following specifications: • Treat 75 m^3/day of raw sewage • Treat sewage to the following output emission standards: ○ pH – 6.5 to 8.5 ○ E. Coli <1000 cfu/100ml ○ Total Nitrogen – 20 mg/L ○ Total Phosphorus – 8 mg/L ○ Total Suspended Solids – 30 mg/L ○ Free Chlorine – 0.5 to 2.0 mg/L ○ Biochemical Oxygen Demand – 20 mg/L WWTP to be constructed to consist of the following infrastructure: • 5 x 50 kL wet weather storage tanks. • 50,000 L raw sewage flow balance tank. • 50,000 L chlorine contact tank. • Sequential Batch Reactor (SBR) and plant room. • Carbon support tank. • Digestor tank. • Chemical disinfection, alkalinity support and nutrient digestion	As shown in Figure 1 and Figure 2 of Schedule 1

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		dosing system. • Human machine interface screen system. WWTP to have at least 1-day emergency storage capacity. Flow meters to be installed to record the influent/effluent volumes that are received/sent from the WWTP. Effluent discharge flow meters to be located on the output line after the WWTP. Chemical storage to be bunded in accordance with Australian Standard 1940 *The Storage and Handling of Flammable and Combustible Liquids.* Tanks holding untreated wastewater and TWW to have alarms fitted (audible and visual) to detect high volume levels.	
2.	WWTP Irrigation Spray Field (ISF)	The ISF accepting blended effluent from the WWTP must be at least 1.71 ha in area. The WWTP ISF must include: • 120 x 1.2 m tall sprinklers that are positioned to ensure even distribution of blended effluent; • Incorporate a 5m buffer surrounding the Irrigation Spray Field; and • Fencing with visible safety signage installed to deter access. Not more than 23 m^3/day RO reject is blended with TWW and discharged to the Spray Irrigation Field each day.	As shown in Figure 1 and Figure 3 of Schedule 1

Compliance reporting

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

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

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

3. The Environmental Compliance Report required by condition 1, must include as a minimum the following:

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

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

4. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 2 of this works approval.

5. 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.

Table 2: Environmental commissioning requirements.

Infrastructure	Commissioning requirements	Authorised commissioning duration
WWTP	• Volumetric flow meters are maintained on the WWTP outlet to the Irrigation Spray Field; and • Spills of chemicals outside of a vessel/container are cleaned up immediately.	For a period not exceeding 90 calendar days in aggregate.
Irrigation Spray Field	• Not more than 98m^3 per day of Blended effluent to be applied to the Irrigation Spray Field. • Irrigation is managed to prevent ponding and pooling of Blended effluent on the ground surface of the Irrigation Spray Field; and • No Blended effluent is permitted to discharge from the ISF identified in Schedule 1 Figure 1.	

6. During environmental commissioning, the works approval holder must ensure that the emission(s) specified in Table 3, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 3: Authorised discharge points during environmental commissioning.

Emission	Discharge point	Discharge point location
Blended effluent from the WWTP	Sprinklers within the Irrigation Spray Field	As shown in Figure 1and Figure 3 of Schedule 1

Monitoring during environmental commissioning

7. The works approval holder must monitor emissions during environmental commissioning in accordance with Table 4.

Table 4: Emissions and discharge monitoring during environmental commissioning.

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method
WWTP outlet	WWTP treated effluent outlet as depicted in yellow in Figure 4 of Schedule 1	*E. coli*	Weekly	Spot sample	cfu/ 100mL	AS/NZS 5667.1
		Thermotolerant coliforms				
		BOD_5			mg/L	
		Total suspended solids				
		Total nitrogen				
		Total phosphorus				
		pH[1]	Daily or continuous online	N/A	pH units	
		Residual chlorine		N/A	mg/L	
		Volume	Continuous	Cumulative daily	m^3	N/A

Note 1 – non-NATA in situ testing permitted

8. All sample analysis must be undertaken by laboratories with current accreditation from the National Association of Testing Authorities (NATA) for relevant parameters, unless otherwise specified in Table 4.

9. The works approval holder must record the results of all monitoring activity required by condition 7 .

Environmental commissioning report

10. The works approval holder must submit to the CEO an Environmental Commissioning Report within 30 calendar days of the completion date of environmental commissioning for each item of infrastructure specified in Table 2.

11. The works approval holder must ensure the Environmental Commissioning Report required by condition 10 of this works approval includes the following:

(a) a summary of the environmental commissioning activities undertaken, including timeframes and amount of wastewater processed;

(b) a summary of the treated effluent monitoring results recorded in accordance with condition 7;

(c) copies of laboratory reports for treated effluent monitoring results recorded in accordance with condition 7;

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

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

Records and reporting (general)

12. 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.

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

(a) the works conducted in accordance with condition 1;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 5;

(c) monitoring programmes undertaken in accordance with condition 7; and

(d) complaints received under condition 12.

14. The books specified under condition 13 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the works approval holder for the duration of the works approval; and

(d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 5 have the meanings defined therein.

Table 5: Definitions.

Term	Definition
AS5667.1:1998	means *Australian Standard 5667.1:1998 Water Quality – Sampling.*
books	has the same meaning given to that term under the EP Act.
blended effluent	means TWW from the WWTP plant blended with RO brine reject.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
cfu	means colony forming units.
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.
E. coli	means *Escherichia coli.*
emission	has the same meaning given to that term under the EP Act.
environmental commissioning	means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications.
Environmental Commissioning Report	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).

Term	Definition
EP Regulations	*Environmental Protection Regulations 1987* (WA).
ISF	means Irrigation Spray Field depicted in and labelled as "Irrigation Field" in Figure 1, and detailed in Figure 3.
m^3	cubic metres
mg/L	milligrams per litre
NATA	means National Association of Testing Authorities.
NATA accreditation	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis.
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
RO reject	Means high TDS wastewater from the Reverse Osmosis (RO) Plant.
TDS	means total dissolved solids.
TWW	means treated wastewater
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.
WWTP	means wastewater treatment plant.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

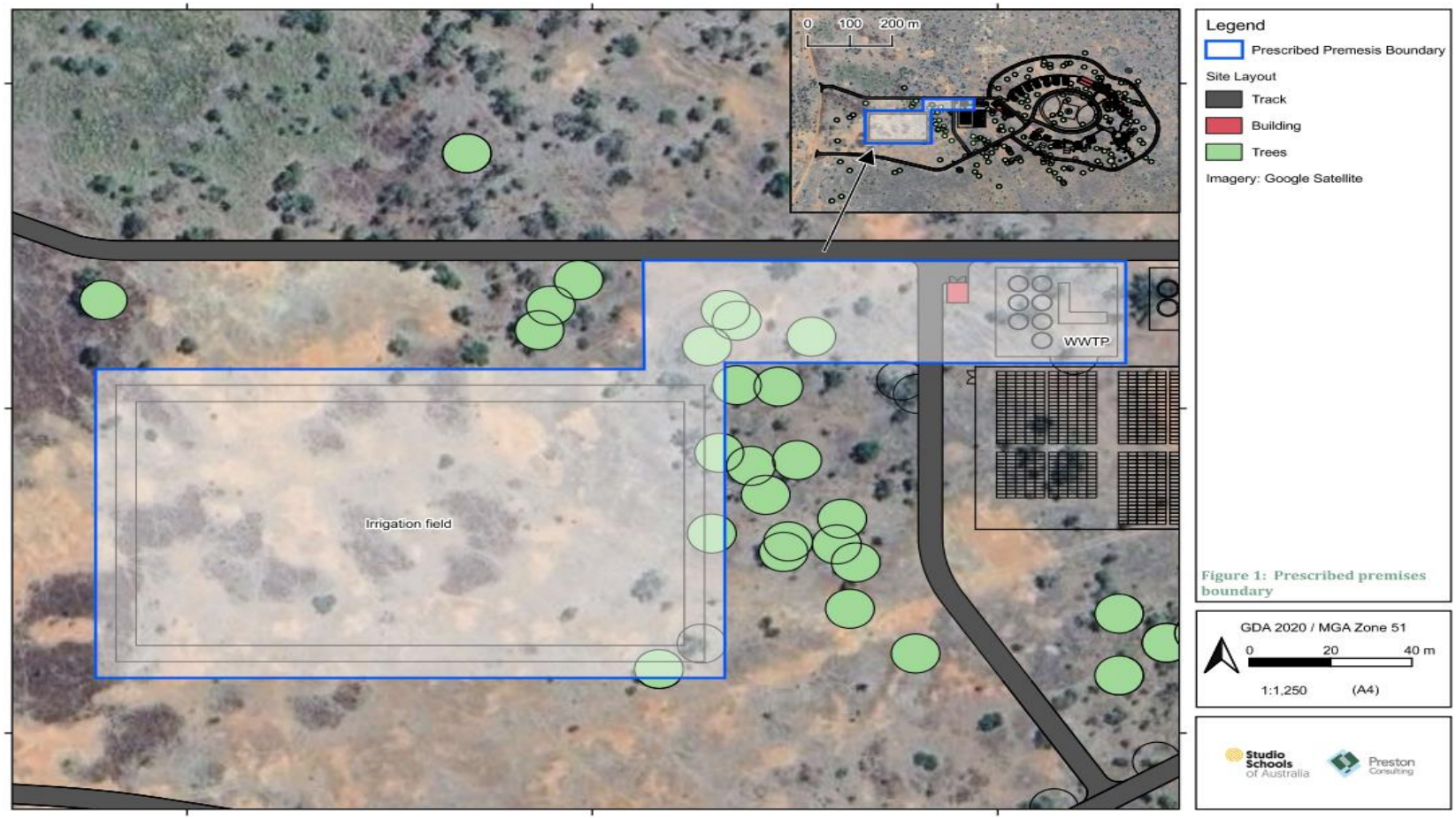

Figure 1: Premises map.

Premises layout maps

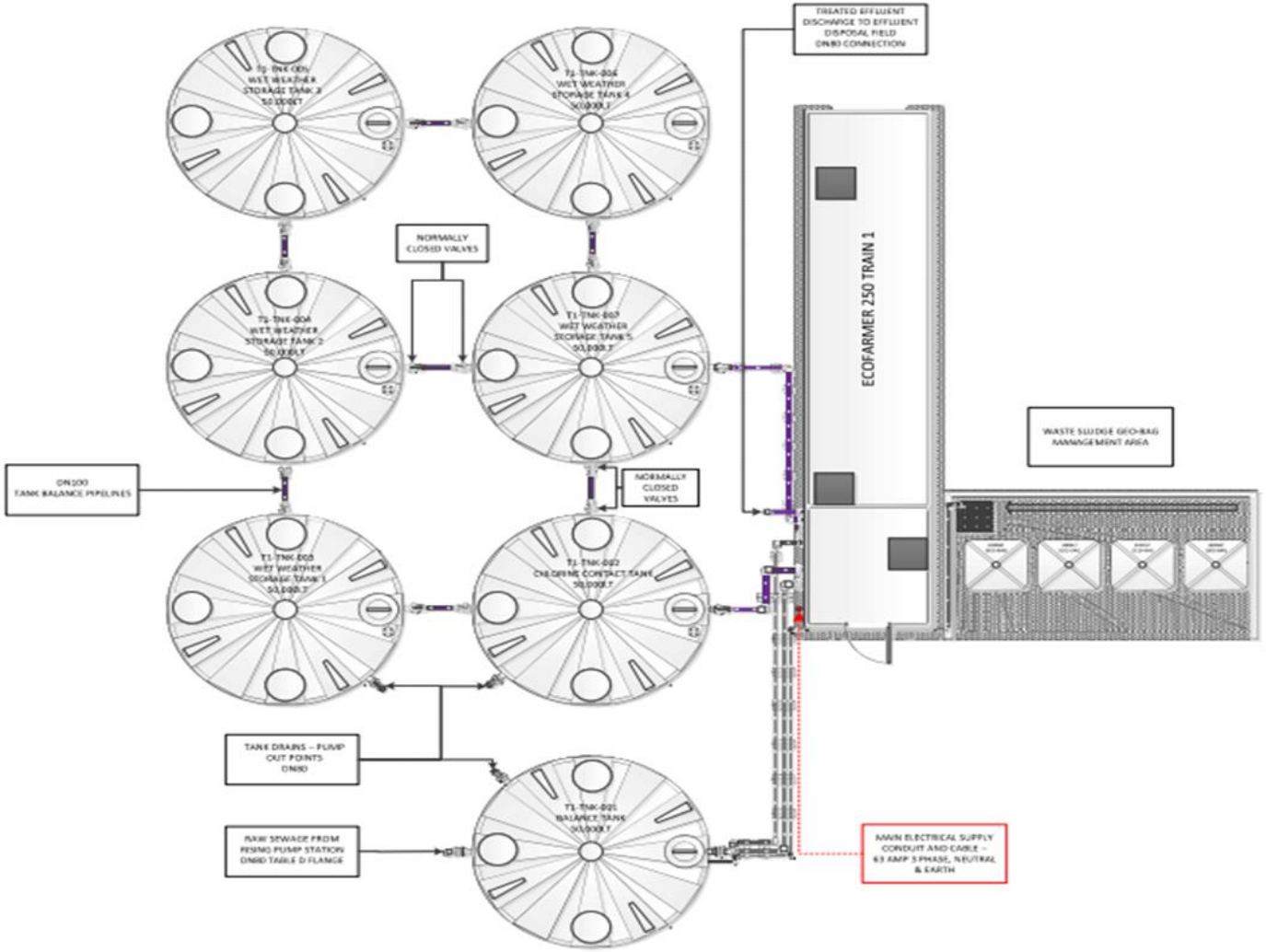

Figure 2: WWTP layout.

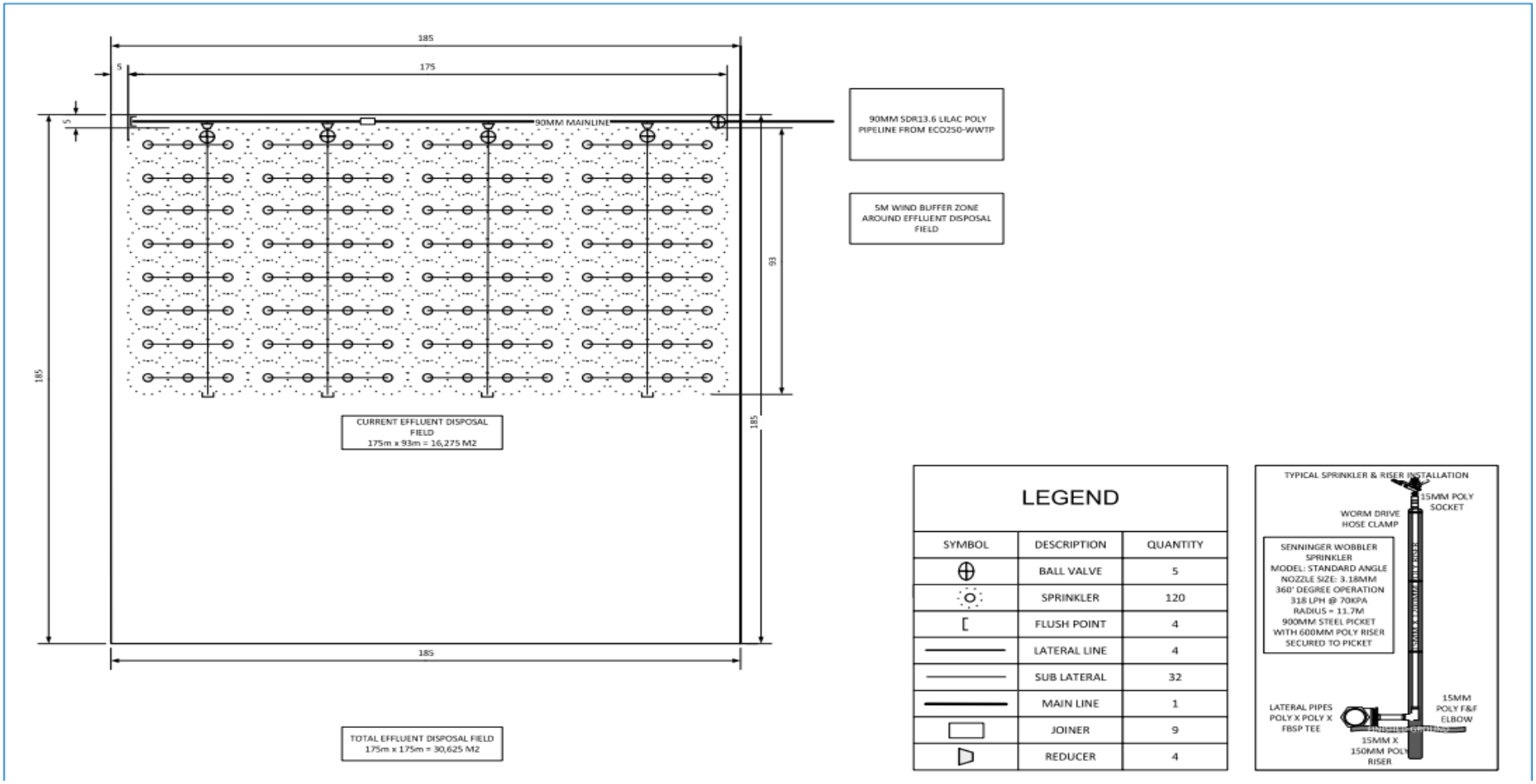

Figure 3: ISF layout.

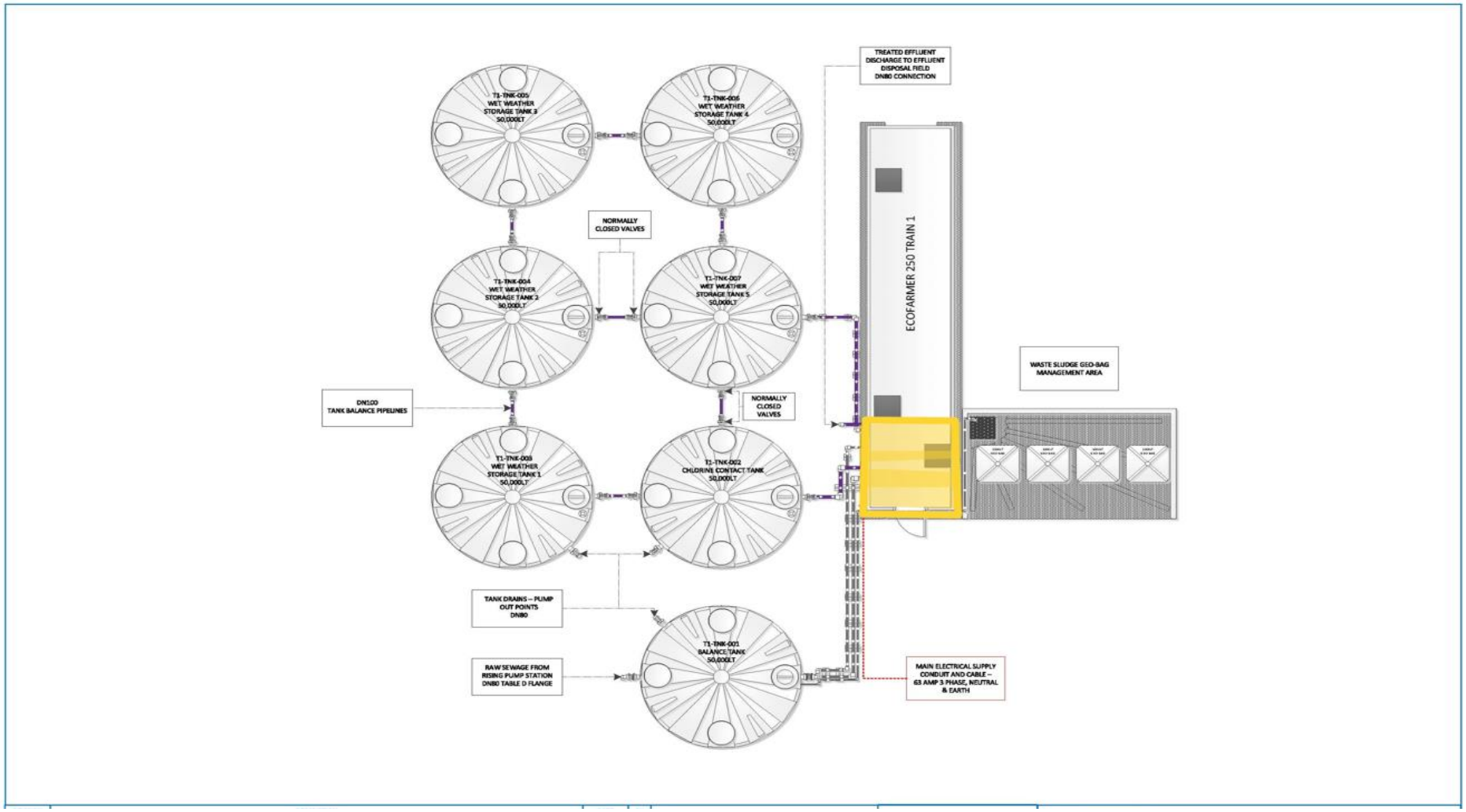

Figure 4: TWW monitoring location (location of treated effluent outlet discharging to ISF shown in yellow).

Schedule 2: Premises boundary

The corners of the premises boundary are the coordinates listed in Table 6.

Table 6: Premises boundary coordinates (GDA2020).

	Easting	Northing	Zone
1.	747627.759	8041812.066	51
2.	747762.904	8041812.066	
3.	747762.645	8041845.536	
4.	747881.494	8041845.310	
5.	747881.494	8041813.910	
6.	747732.788	8041814.038	
7.	747782.759	8041717.066	
8.	747627.759	8041717.068	