



# Works Approval

<b>Works approval number</b>	W2852/2024/1
<b>Works approval holder</b>	Agnew Gold Mining Company Pty Ltd
<b>ACN</b>	093 385 883
<b>Registered business address</b>	Level 4, 235 St Georges Terrace West Perth WA 6000
<b>DWER Application</b>	APP-0026142
<b>Duration</b>	06/03/2025 to 05/03/2030
<b>Date of issue</b>	06/03/2025
<b>Premises details</b>	Agnew Gold Mine Mining tenements M36/55 and, M36/150 LEINSTER WA 6437 As defined in Figure 1 of Schedule 1

<b>Prescribed premises category description</b> (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	<b>Assessed production / design capacity</b>
Category 85: Sewage facility	20 m <sup>3</sup> /day

This works approval is granted to the works approval holder, subject to the attached conditions, on 6 March 2025, by:

**Grace Heydon**

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

## Works approval history

Date	Reference number	Summary of changes
06/03/2025	W2852/2024/1	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 as set out in Table 1.

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

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Redeemer Wastewater Treatment Plant (WWTP)	(a) SBR WWTP to be constructed to meet the following specifications: <ul style="list-style-type: none"> <li>• Treat 20 m<sup>3</sup>/day of raw sewage</li> <li>• Treat sewage to the following output emission standards:                             <ul style="list-style-type: none"> <li>○ pH – 6.5 to 8.5</li> <li>○ E. Coli &lt;1000 cfu/100ml</li> <li>○ Total Nitrogen – 30 mg/L</li> <li>○ Total Phosphorus – 8 mg/L</li> <li>○ Total Suspended Solids – 30 mg/L</li> <li>○ Free Chlorine – 0.5 to 2.0 mg/L</li> <li>○ Biochemical Oxygen Demand – 30 mg/L</li> </ul> </li> </ul> (b) SBR WWTP to be constructed in a series of 12 m containers to consist of the following infrastructure: <ul style="list-style-type: none"> <li>• 2.5 mm inlet bar screen.</li> <li>• External 1 x 50 m<sup>3</sup> poly balance tank (external).</li> <li>• Balance pump.</li> <li>• SBR Tank with heavy duty submersible aerators and floating decant weir.</li> <li>• Cyclic operation of the SBR tank includes:                             <ul style="list-style-type: none"> <li>• 4 x 6 hr cycles per day;</li> </ul> </li> </ul>	As shown in Figure 1 and Figure 2 of Schedule 1.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		<ul style="list-style-type: none"> <li>• 0.5 hr feed/1.25 hr anoxic period with mixing; and</li> <li>• 3.25 hr aeration, 0.75 hr settle and 0.75 hr decant.</li> <li>• Decant pump.</li> <li>• pH control with caustic dosing.</li> <li>• Sludge pump.</li> <li>• Recirculation pump with inline sodium hypochlorite dosing. Setpoint for residual chlorine in tank will be 0.2- 2.0 mg/L.</li> <li>• Sodium hypochlorite dosing system.</li> <li>• Polyaluminiumchloride dosing system.</li> <li>• 1 x 50 kl sludge storage tank (external).</li> <li>• Irrigation pump.</li> <li>• Discharge flow meter.</li> <li>• Control panel (Australian Standard) with PLC and remote monitoring capabilities.</li> <li>• Audible and visual alarms.</li> </ul> <p>(c) WWTP to have at least 1-day emergency storage capacity.</p> <p>(d) Flow meters to be installed to record the influent/effluent volumes that are received/sent from the WWTP.</p> <p>(e) Effluent discharge flow meters to be located on the output line after the WWTP.</p> <p>(f) Chemical storage to be banded in accordance with Australian Standard 1940 <i>The Storage and Handling of Flammable and Combustible Liquids</i>.</p> <p>(g) Tanks holding untreated wastewater and TWW to have alarms fitted (audible and visual) to detect high volume levels.</p>	
2.	ISF	<p>(a) The ISF accepting blended effluent from the WWTP must be at least 1.0 ha in area.</p> <p>(b) The WWTP ISF must include:</p> <ul style="list-style-type: none"> <li>• 1.2 m tall sprinklers that are positioned to ensure even</li> </ul>	As shown in Figure 1 and Figure 3 of Schedule 1

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		distribution of blended effluent; and <ul style="list-style-type: none"> <li>• Fencing with visible safety signage installed to deter access.</li> </ul>	

## 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 2, must include as a minimum the following:
  - (a) certification by a qualified engineer 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.

## Time limited operations phase

### Commencement and duration

4. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 where the Environmental Compliance Report as required by condition 3 has been submitted by the works approval holder for that item of infrastructure.
5. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1 (as applicable):
  - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 4 for that item of infrastructure; or
  - (b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 5(a).

### Time limited operations requirements and emission limits

6. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

**Table 2: Infrastructure and equipment requirements during time limited operations**

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1.	WWTP	(a) Volumetric flow meters are maintained on the WWTP outlet to the ISF; and (b) Spills of chemicals outside of a vessel/container are cleaned up immediately.	As shown in Figure 1 of Schedule 1.
2.	ISF	(a) Not more than 6 m <sup>3</sup> /day RO reject is blended with TWW to create Blended effluent (b) Not more than 26 m <sup>3</sup> per day of Blended effluent to be applied to the ISF. (c) Irrigation is managed to prevent ponding and pooling of Blended effluent on the ground surface of the ISF; and (d) No Blended effluent is permitted to discharge from the ISF identified in Figure 1 of Schedule 1	As shown in Figure 1 of Schedule 1

7. During time limited operations, the works approval holder must ensure that the emissions specified in Table 3, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

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

Emission	Discharge point	Discharge point location
Blended effluent from the WWTP	Sprinklers within the ISF	As shown in Figure 1 of Schedule 1

### Monitoring during time limited operations

8. The works approval holder must monitor emissions during time limited operations in accordance with Table 4.

**Table 4: Emission monitoring during time limited operations**

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method
WWTP outlet	WWTP treated effluent outlet as	<i>E. coli</i>	Weekly	Spot sample	cfu/100mL	AS/NZS 5667.1
		Thermotolerant coliforms				

depicted in Figure 2 of Schedule 1	Biochemical Oxygen Demand			mg/L	
	Total suspended solids				
	Total nitrogen				
	Total phosphorus				
	pH <sup>1</sup>	Daily or continuous online	N/A	pH units	
	Residual chlorine		N/A	mg/L	
	Volume	Continuous	Cumulative daily	m <sup>3</sup>	N/A

Note 1 – non-NATA in situ testing permitted

9. 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.
10. The works approval holder must record the results of all monitoring activity required by condition 8.

### Compliance reporting

11. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations.
12. The works approval holder must ensure the report required by condition 11 includes the following:
  - (a) a summary of the time limited operations;
  - (b) a review of performance and compliance against the conditions of the works approval; and
  - (c) where the manufacturer’s design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

### Records and reporting (general)

13. 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.
- 14.** 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 6;
  - (c) monitoring programmes undertaken in accordance with condition 8; and
  - (d) complaints received under condition 13.
- 15.** The books specified under condition 14 must:
- (a) be legible;
  - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
  - (c) be retained by the works approval holder for the duration of the works approval; and
  - (d) be available to be produced to an inspector or the CEO as required.



## Definitions

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

**Table 5: Definitions**

Term	Definition
AS5667.1:1998	means <i>Australian Standard 5667.1:1998 Water Quality – Sampling</i> .
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 <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>
cfu	means colony forming units.
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.
emission	has the same meaning given to that term under the EP Act.
<i>E. coli</i>	means <i>Escherichia coli</i> .
ISF	Irrigation Spray Field
m <sup>3</sup>	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.
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> .

<b>Term</b>	<b>Definition</b>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA).</i>
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.
SBR	Sequencing Batch Reactor
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
RO reject	Means high TDS wastewater from the Reverse Osmosis (RO) Plant.
TWW	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.

---

**END OF CONDITIONS**

# Schedule 1: Maps

## Premises map

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

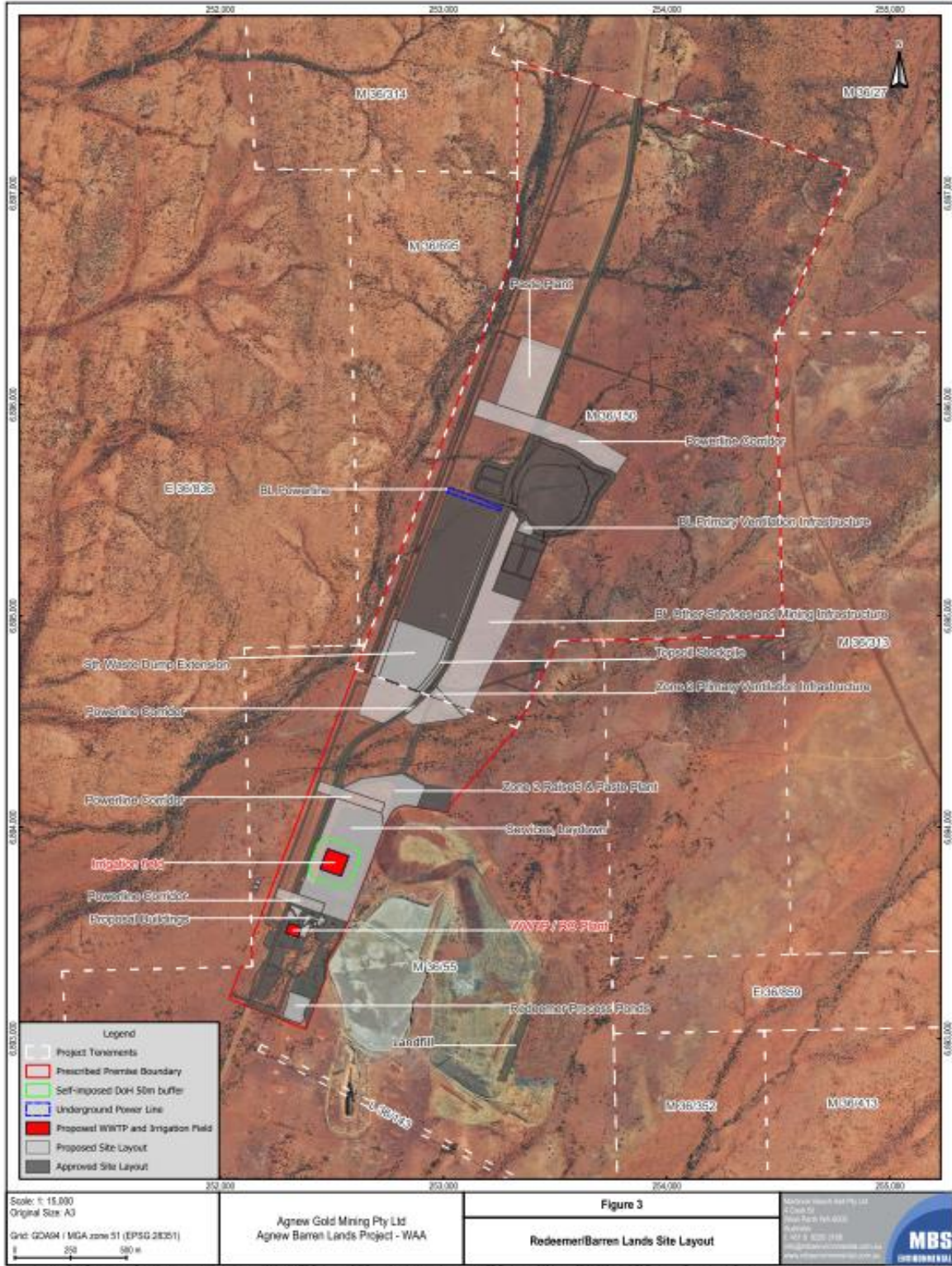


Figure 1: Map of the boundary of the prescribed premises

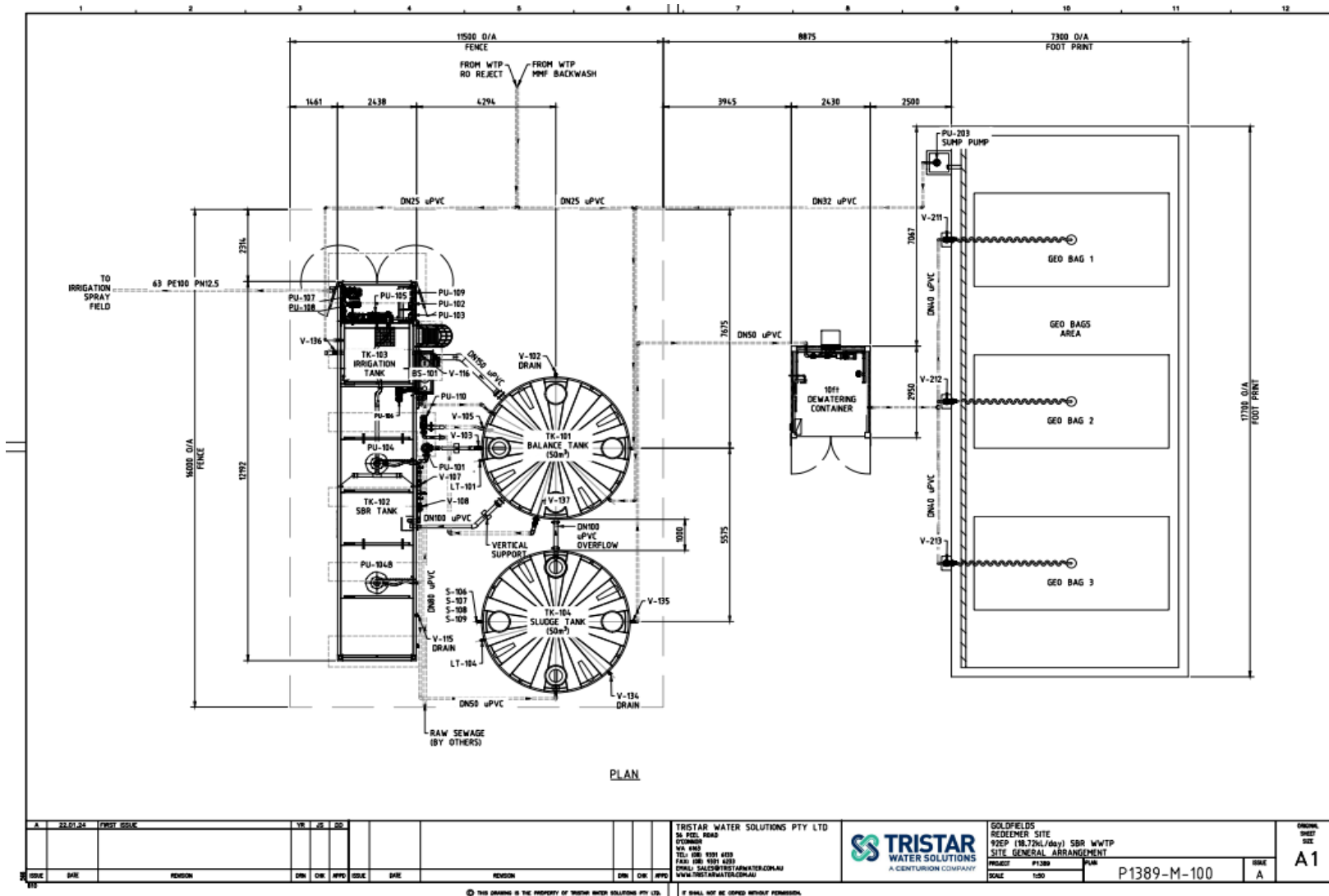


Figure 2: WWTP layout

W2852/2024/1

IR-T05 Works approval template (v6.0) (September 2022)

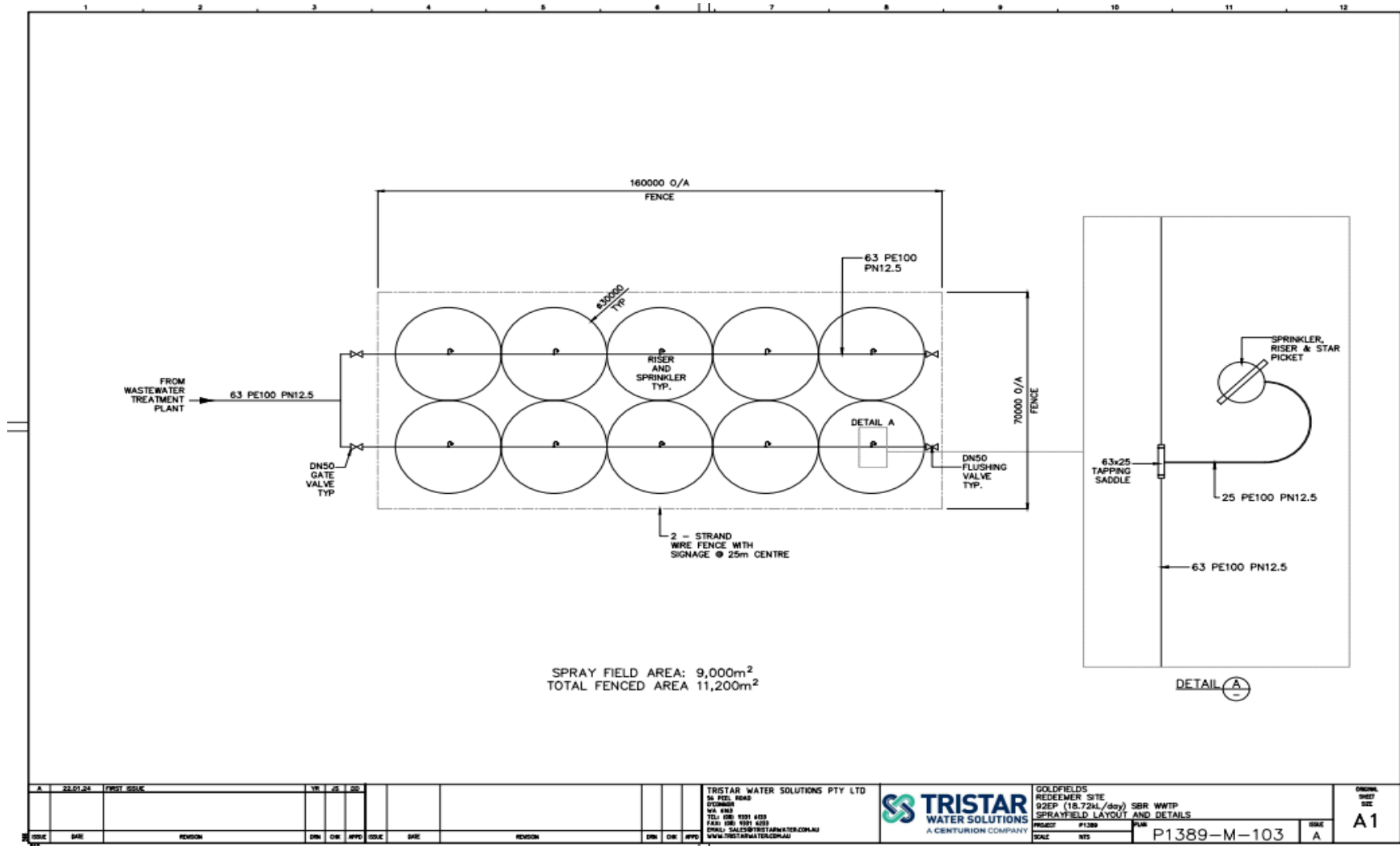


Figure 3: ISF layout

W2852/2024/1

IR-T05 Works approval template (v6.0) (September 2022)