



Works Approval

Works approval number	W6951/2024/1	
Works approval holder	Pilbara Iron Company (Services) Pty Ltd	
ACN	107 210 248	
Registered business address	Level 18, Central Park 152-158 St Georges Terrace PERTH WA 6000	
DWER file number	DER2024/000341	
Duration	24/10/2024 to	23/10/2027
Date of issue	24/10/2024	
Date of amendment	07/11/2024	
Premises details	Mt Brockman, Nammuldi and Silvergrass Iron Ore Mines AML70/4, ALM70/272, G47/01242, G47/01243, G47/01269, L47/140, L47/388, L47/141, L47/647, LGE G848898, LG848907 and LPL N050438 within co-ordinates: E535363 N7536177; E 544071 N7257202; E553417 N7525629; E548757 N7517535; E538693 N7517627; E531400 N7517644; E527723 N7519096 and E525753 N7531802 MT SHEILA WA 6751 As defined by the Premises map in Schedule 1 of the issued Works Approval	

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 54: Sewage facility	390 cubic metres per day

This works approval is granted to the works approval holder, subject to the attached conditions, on 07 November 2024, by:

**MANAGER, RESOURCE INDUSTRIES
INDUSTRY REGULATION (STATE-WIDE DELIVERY)**
Officer delegated under section 20 of the Environmental Protection Act 1986

Works approval history

Date	Reference number	Summary of changes
24/10/2024	W6951/2024/1	New works approval for the construction and operation of a new wastewater treatment plant (WWTP) and sprayfield.
07/11/2024	W6951/2024/1	Administrative amendment; adding General-Purpose Lease G47/01269 to the specified premises details.

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.	Corella Camp WWTP	<ul style="list-style-type: none"> • 390 kL/day Sequencing Batch Reactor WWTP comprising the following equipment: <ol style="list-style-type: none"> (i) Influent screen; (ii) 500 kL Recirculating Anoxic Buffer (RAB) tank; (iii) Forward Transfer Pump; (iv) 500 kL Aeration/Decant Tank; (v) Aerator Pumps; (vi) Recycle Pump; (vii) Decant Pump; (viii) Sludge Press Feed Pump; (ix) Precipitant Dosing Pump; (x) 500 kL Spill Containment Tank; (xi) Hydrochlorite (Chlorine) Dosing Pump; (xii) 196 kL Effluent Tank; (xiii) Effluent Pump; (xiv) Sludge Press Wash Water Pump; (xv) Dewatering Polymer makeup system; (xvi) Incline Sludge Press; (xvii) Air Compressor; (xviii) Camlock valve; and (xix) Truck unloading pump. • Able to treat sewage to the following output emission targets: <ol style="list-style-type: none"> (i) Biochemical Oxygen Demand <20 mg/L 	Shown in Schedule 1, Figures 2 and 3

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		<ul style="list-style-type: none"> (ii) Total Suspended Solids <30 mg/L (iii) Total Phosphorus <8 mg/L (iv) Total Nitrogen <30 mg/L (v) pH 6.5-8.5 (vi) <i>E. coli</i> <1,000 cfu/100 mL • Alarms to be installed to warn of high-water levels in the tanks or if a pump failure occurs; • Flow meter to be installed on the irrigation pump to monitor volumes discharged to the sprayfield; and • A perimeter bund and sumps to surround the WWTP. 	
2.	Sprayfield	<ul style="list-style-type: none"> • Comprising up to four cells totalling 10 hectares in size within the sprayfield footprint, with above ground sprinkler units; • Earthen bunds to be installed on the down-gradient sides of the sprayfield to prevent surface water run-off; • Perimeter fence; and • Equipped with reticulated irrigation network that allows an even distribution of treated wastewater to preventing pooling and surface water run-off. 	Within the sprayfield footprint shown in Schedule 1, Figures 2 and 4
3.	Fuel Facility	<ul style="list-style-type: none"> • Two (2) x 110 kL double skinned bulk fuel (diesel) tanks with leak detection systems; • The ground directly below the delivery/refuelling apron to be compacted to 95% Maximum Dry Density; • 0.75 mm high density polyethylene (HDPE) liner to be installed below the delivery/refuelling apron; • Rollover bunds to be constructed on all sides of the delivery/refuelling apron; • An alarm to be installed for overflow protection; • Two (2) concrete-filled facility bollards to be installed on either side of the delivery/refuelling apron to prevent vehicle collision; and • Windrows approximately 700 mm high at 2:1 batter to surround the sides of the fuel facility. 	Shown in Schedule 1, Figures 2 and 5

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 suitably 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.

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 Table 2 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
Stage 1 –Wet Commissioning		
Corella Camp WWTP	<u>Pre-energisation</u> <ul style="list-style-type: none"> • Earthing tests • Insulation resistance test • Continuity test • Testing of instrument settings and operations 	For a period not exceeding 7 calendar days
	<u>Post-energisation</u> <ul style="list-style-type: none"> • Voltage checks • Phase rotation checks 	

Infrastructure	Commissioning requirements	Authorised commissioning duration
	<ul style="list-style-type: none"> • Motor direction checks • Motor current draw • Electrical switchgear function test • Fluid transfer between tanks • Alarms, setting and priming of chemical metering pumps • Testing of electrical and mechanical installation • Testing of safety systems • Run operational sequences 	
Stage 2 – Biological Commissioning		
Corella Camp WWTP and Sprayfield	<ul style="list-style-type: none"> • Potentially introduce from a nearby WWTP • Introduction of sewage from the camp • Produce compliant effluent quality within commissioning period 	For a period not exceeding 90 calendar days in aggregate.

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

Emission	Discharge point	Discharge point location
Treated effluent	Sprinklers within the Sprayfield	Within the sprayfield footprint shown in Schedule 1, Figures 2 and 4

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

Monitoring location	Parameter and unit	Target	Frequency	Averaging Period	Method
Corella Camp WWTP – treated wastewater sampling point	Cumulative flow volume discharged to sprayfield (m ³ /s)	-	Daily	N/A	Flow meter
	pH ¹ (pH units)	6.5-8.5	Daily	Spot sample	AS/NZS 5667.1 AS/NZS 5667.10
	Biochemical Oxygen Demand (mg/L)	<20	Weekly		
	Total Suspended Solids (mg/L)	<30			
	Total Nitrogen (mg/L)	<30			
	Total Phosphorus (mg/L)	<8			
	<i>E.coli</i> (cfu/100mL)	<1,000			

Note 1: In-field non-NATA accredited analysis 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;
 - (b) the monitoring results for the WWTP recorded in accordance with condition 7 including a comparison against the targets specified in condition 7;
 - (c) a review of the works approval holder's performance and compliance against the conditions of this works approval; and
 - (d) 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.

Time limited operations phase

Commencement and duration

- 12.** The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 14:
- where the item of infrastructure is not authorised to undertake environmental commissioning, the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for that item of infrastructure; and
 - where the item of infrastructure is authorised to undertake environmental commissioning under condition 5, the Environmental Commissioning Report for that item of infrastructure as required by condition 10 has been submitted by the works approval holder.
- 13.** The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 14:
- for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 12 for that item of infrastructure; or
 - 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 13(a).

Time limited operations requirements

- 14.** During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 5 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 5.

Table 5: Infrastructure and equipment requirements during time limited operations

Item	Site infrastructure and equipment	Operational requirements	Infrastructure location
1.	Corella Camp WWTP	<ul style="list-style-type: none"> The WWTP to be operated and maintained as per manufacturers specifications; Volumetric flow meters to be maintained; Inspection and maintenance to be undertaken and recorded; and Bunding to be maintained around the WWTP perimeter. 	Shown in Schedule 1, Figures 2 and 3
2.	Sprayfield	<ul style="list-style-type: none"> Irrigation is managed to prevent ponding and pooling of effluent on the ground surface of the sprayfield; and No treated effluent is permitted to runoff or discharge outside of the sprayfield. 	Within the sprayfield footprint shown in Schedule 1, Figures 2 and 4

Item	Site infrastructure and equipment	Operational requirements	Infrastructure location
3.	Fuel Facility	<ul style="list-style-type: none"> Any potentially contaminated surface water to be directed to installed grates and sumps which are pumped out periodically and removed offsite to a licensed facility; and Appropriate emergency response equipment, including spill response pads and booms and fire extinguishers to be available. 	Shown in Schedule 1, Figures 2 and 5

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

Table 6: Authorised discharge points

Emission	Discharge point	Discharge point location
Treated effluent	Sprinklers within the Sprayfield	Within the sprayfield footprint shown in Schedule 1, Figures 2 and 4

Monitoring during time limited operations

16. The works approval holder must monitor emissions during time limited operations in accordance with Table 7.

Table 7: Emissions and discharge monitoring

Monitoring location	Parameter and unit	Target	Frequency	Averaging Period	Method
Corella Camp WWTP – treated wastewater sampling point	Cumulative flow volume discharged to sprayfield (m ³ /s)	-	Weekly	N/A	Flow meter
	pH ¹ (pH units)	6.5-8.5	Monthly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.10
	Biochemical Oxygen Demand (mg/L)	<20			
	Total Suspended Solids (mg/L)	<30			
	Total Nitrogen (mg/L)	<30			
	Total Phosphorus (mg/L)	<8			
	<i>E.coli</i> (cfu/100mL)	<1,000			

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

17. 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 7.
18. The works approval holder must record the results of all monitoring activity required by condition 16.

Compliance reporting

19. 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 or 90 calendar days before the expiration date of the works approval, whichever is the sooner.
20. The works approval holder must ensure the report required by condition 19 includes the following:
 - (a) a summary of the time limited operation, including timeframes;
 - (b) a summary of the environmental performance of all infrastructure as constructed or installed (as applicable), which includes records detailing the volumes of treated effluent processed;
 - (c) monitoring results obtained during the time limited operations under condition 16 including a comparison against the targets specified in condition 16;
 - (d) a review of performance and compliance against the conditions of the works approval; and
 - (e) 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)

21. 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.
22. 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 this works approval;
 - (c) monitoring programmes undertaken in accordance with conditions 7 and 16; and

- (d) complaints received under condition 21.
23. The books specified under condition 22 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 8 have the meanings defined.

Table 8: Definitions

Term	Definition
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality - Sampling - Guidance on the Design of sampling programs, sampling techniques and the preservation and handling of samples.</i>
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 <i>Water Quality – Sampling – Guidance on sampling of waste waters.</i>
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. 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 info@dwer.wa.gov.au
cfu/100 mL	means colony forming units per 100 millilitres.
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.
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.

Term	Definition
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>
premises	the premises to which this works approval applies, as specified at the front of this works approval 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.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
suitably qualified engineer	means a person who: <ul style="list-style-type: none"> (a) holds a relevant tertiary academic qualification in Mine Engineering and/or Civil Engineering; and (b) has a minimum of five years of experience working in the relevant area/field of expertise; or is otherwise approved in writing by the CEO to act in this capacity.
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.
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	Wastewater Treatment Plant.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

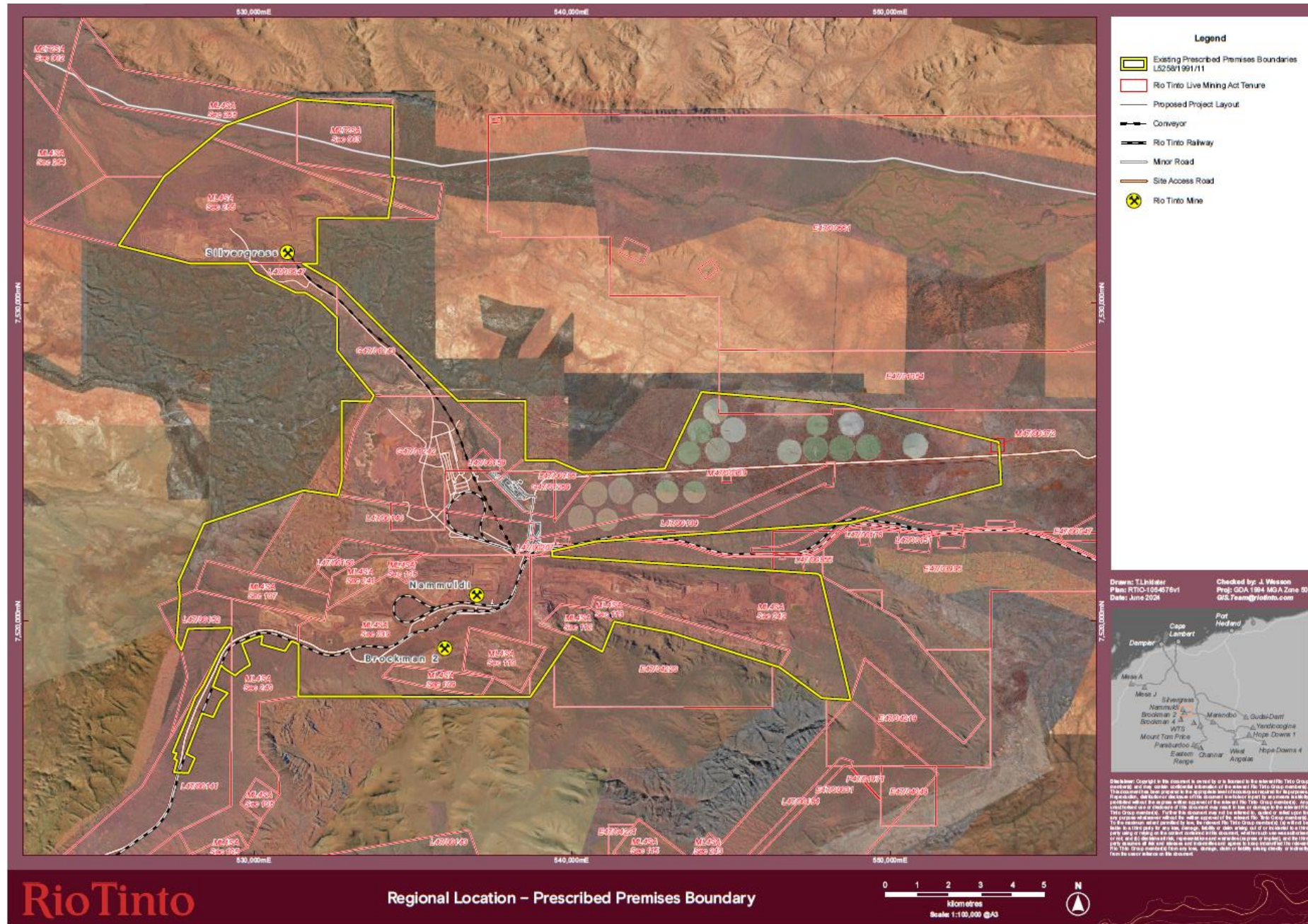


Figure 1: Map of the boundary of the prescribed premises

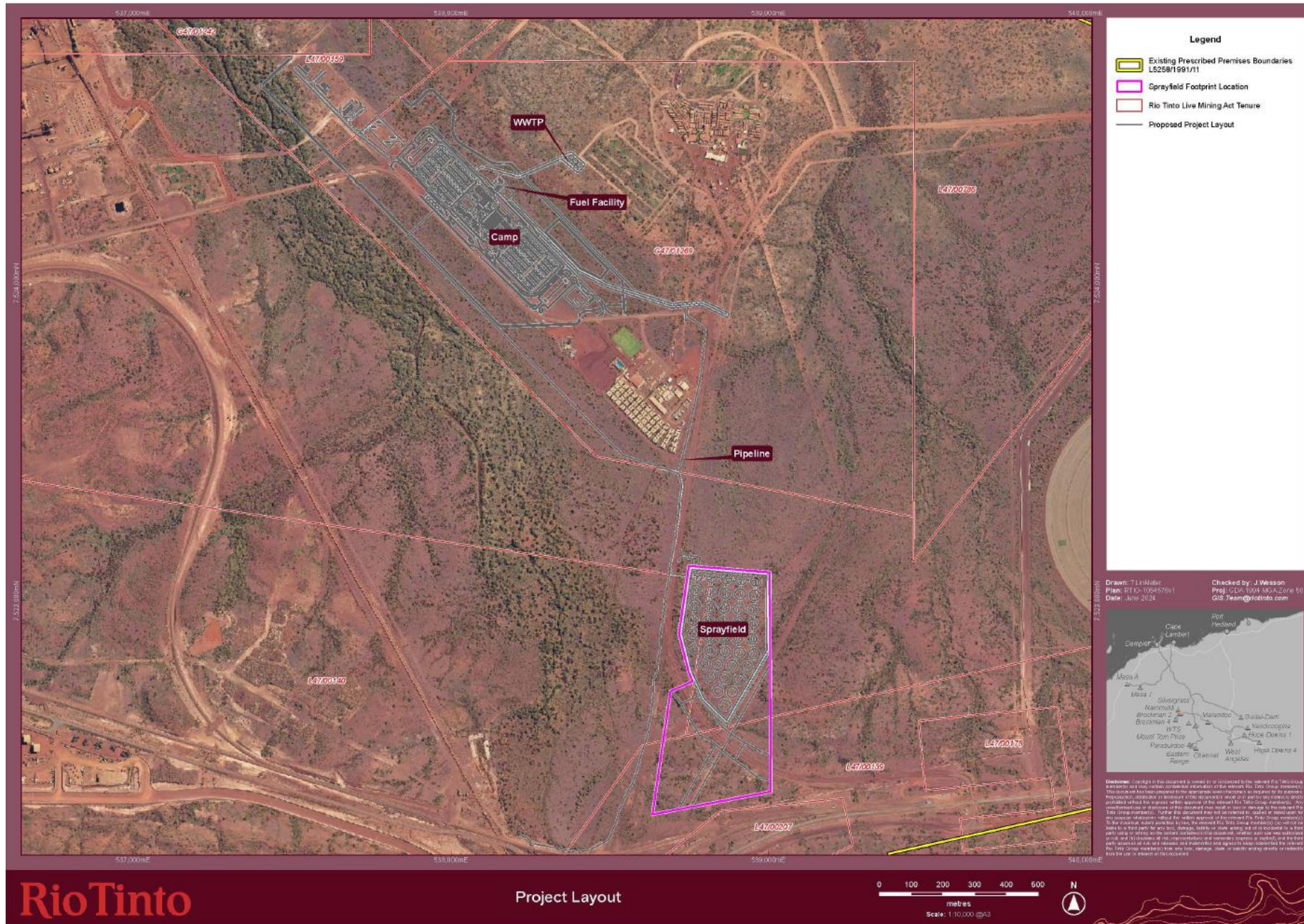


Figure 2: Location of WWTP, Sprayfield, and Fuel Facility

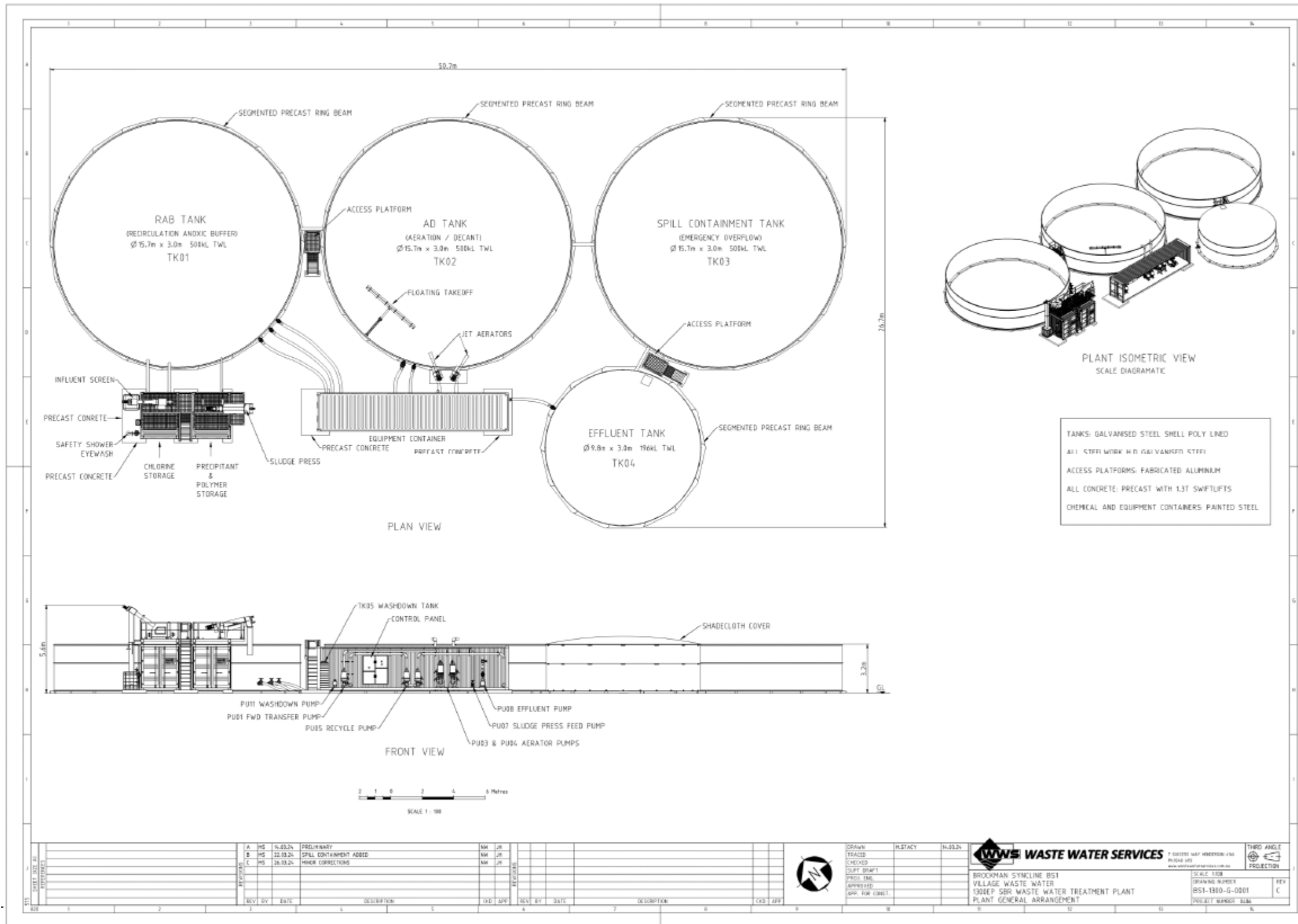


Figure 3: WWTP general arrangement

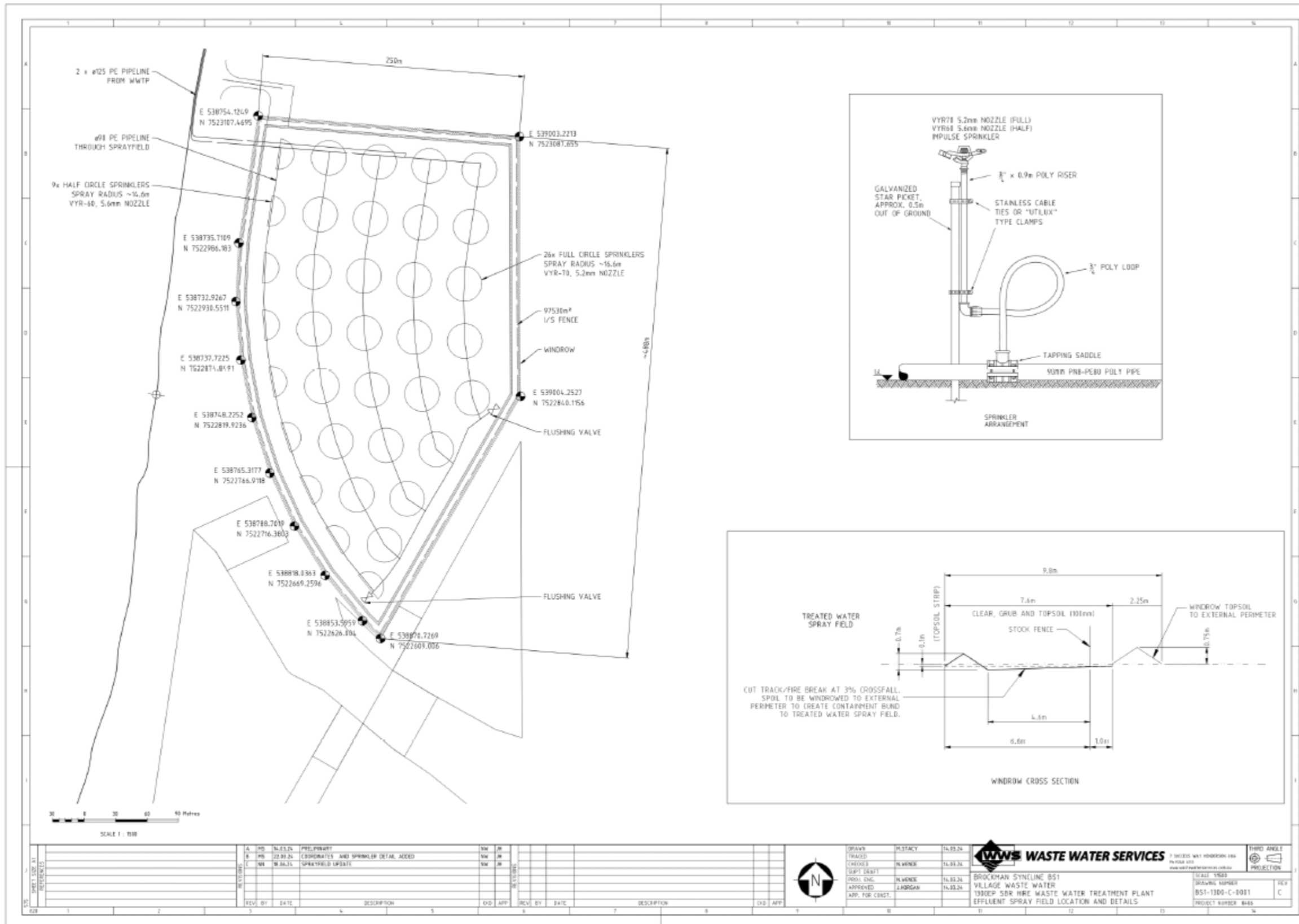


Figure 4: Sprayfield layout

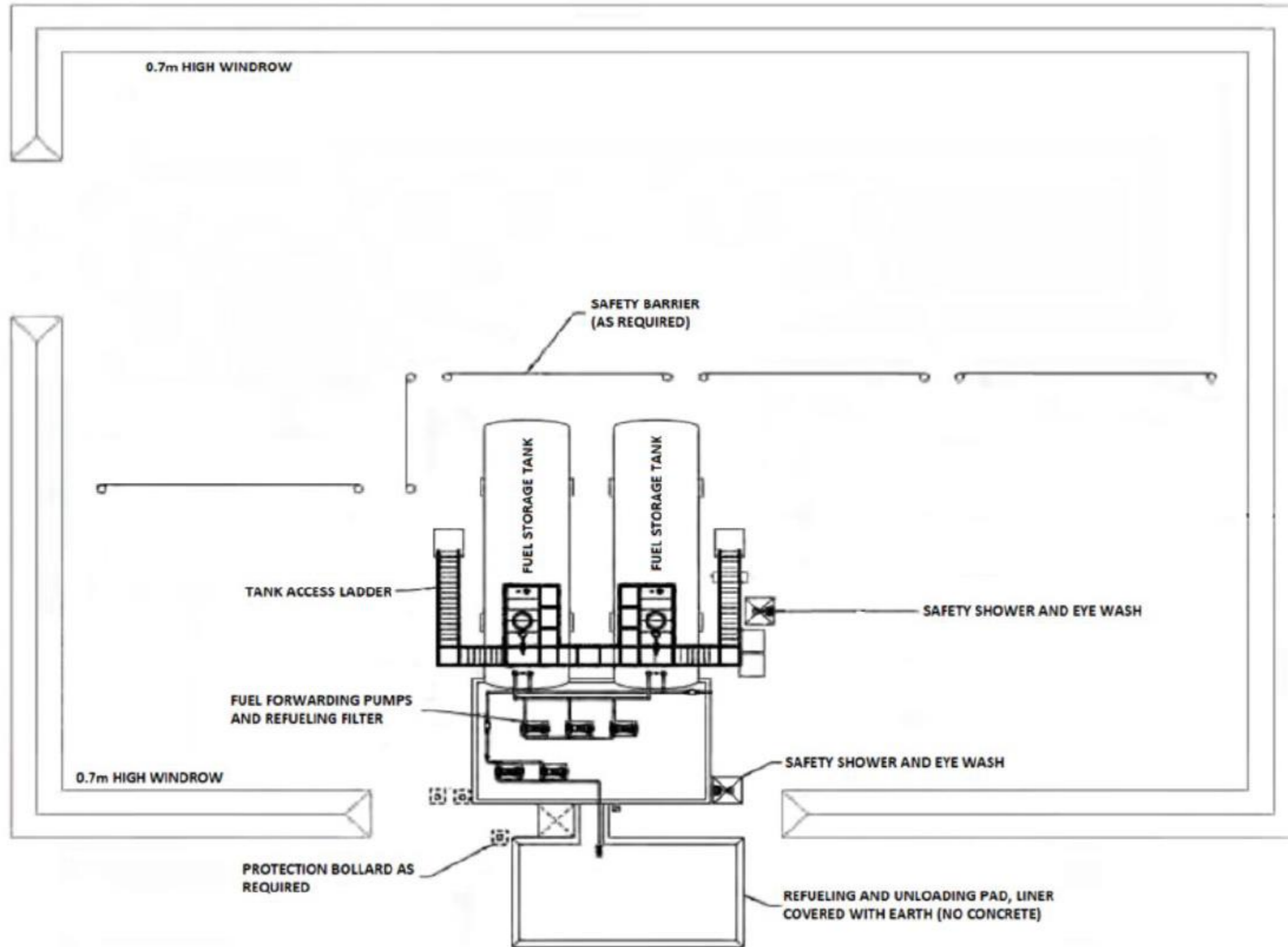


Figure 5: Fuel Facility indicative layout