



Works Approval

Works approval number W6917/2024/1

Works approval holder Iluka Rare Earths Pty Ltd
ACN 654 487 662
Level 17
Registered business address 240 St Georges Tce
PERTH WA 6000
DWER file number DER2024/000129

Duration 16/07/2024 to 15/07/2027

Date of issue 16/07/2024

Premises details Eneabba Mine Site
Mining Lease M267SA
Shire of Carnamah
As defined by the maps in Schedule 2

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 85: Sewage facility	45 m ³ per day

This works approval is granted to the works approval holder, subject to the attached conditions, on 16 July 2024, by:

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

Works approval history

Date	Reference number	Summary of changes
16/07/2024	W6917/2024/1	Works approval granted for a category 85 waste water treatment plant and irrigation spray field for 45 m ³ per day.

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) install the infrastructure;
 - (b) in accordance with the corresponding installation requirements; and
 - (c) at the corresponding infrastructure location as set out in Table 1.

Table 1: Installation requirements

	Infrastructure	Installation requirements	Infrastructure location
1.	Wastewater Treatment Plant (WWTP)	(a) Must be capable of treating up to 45 m ³ of sewage per day; (b) Must be able to treat sewage to the following minimum requirements: <ol style="list-style-type: none"> (i) pH 6.5 – 8.5; (ii) BOD <20 mg/L; (iii) TSS <30 mg/L; (iv) TN <30 mg/L; (v) TP <8 mg/L; (vi) E. coli <1,000 mg/L; and (vii) Residual free chlorine 0.2 – 2.0 mg/L; (c) Constructed as per the specifications in Figures 3 – 5 of Schedule 1 and must comprise the following: <ol style="list-style-type: none"> (viii) Inlet bar screen; (ix) Balance pump and 22 kL balance tank; (x) A2O Process with 3 submersible aerators; (xi) Sludge pumps; (xii) Recirculation pump with online chlorine dosing; (xiii) Sodium hypochlorite dosing system; (xiv) Poly Aluminium chloride dosing system; (xv) 13 kL sludge storage tank; (xvi) 50 kL irrigation tanks and outlet; (xvii) Irrigation pumps; (xviii) Discharge flow meter; (xix) Interconnecting pipework; and (xx) Sewage pump station; (d) All sewage storage and treatment tanks must be bunded; (e) An alarm system must be installed to notify the operator of high water levels, pump failures and other failures; (f) All sewage storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks and defects; and	As depicted in Figure 2 of Schedule 1

	Infrastructure	Installation requirements	Infrastructure location
		(g) Stormwater must be prevented from entering the sewage treatment system and storage infrastructure.	
2.	Irrigation spray field	(a) The size of the spray field must be at least 6.5 ha and bunded to ensure no interaction with surface water; (b) Sprinklers must be positioned to ensure even distribution of treated wastewater across the spray field (refer to Figure 5 of Schedule 1 for the irrigation spray field design); (c) Individual branch line flush valves must be installed; (d) Pipelines must be impermeable and free of leaks; (e) Spray field to be pasture seeded; and (f) Must have a perimeter fence with visible safety signage installed to deter access.	As depicted in Figure 2 of Schedule 1
3.	Chemical / reagents storage	(a) Chemicals and hydrocarbon storage area must be adequately bunded to comply with the Dangerous Good Safety Act 2004 and handled in accordance with AS 1940.	As depicted in Figure 4 of Schedule 1

Compliance reporting

2. The works approval holder must within 30 calendar days of an item of infrastructure required by condition 1 being 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 suitability qualified and experienced engineer (eligible for membership of Engineers Australia) 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 condition 1 and 5 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
1.	Wastewater Treatment Plant (WWTP)	(a) Pre-commissioning – comprising of static checks on unpowered equipment to confirm that the infrastructure has been built according to specifications; (b) Wet commissioning – comprising test operation of equipment and facilities with water; (c) Final commissioning – comprising test operation of equipment and facilities with chemicals and wastewater: (i) Material feeds to the WWTP must be gradually introduced until they reach steady state design volumes; and (ii) Treated wastewater must be collected and recycled to the WWTP as required; (d) Sewage sludge must be stored in impervious tanks prior to disposal to landfill; and (e) Operators must be trained in the use and maintenance of the WWTP.	For a period not exceeding 90 calendar days in aggregate
2.	Irrigation spray field	(a) No more than 45 m ³ of treated wastewater shall be applied per day to the irrigation spray field as defined by Figure 2 of Schedule 1; (b) Irrigation is managed to prevent ponding and pooling of wastewater in the ground surface of the irrigation discharge area; and (c) Irrigation system valves, pumps, pipelines, and other fittings must be maintained and inspected daily for ruptures or leaks when irrigating.	
3.	Chemical / reagents storage	(a) Tanks and storage receptacles must be confirmed free of leaks and defects prior to use.	

Monitoring during environmental commissioning

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

Table 3: Authorised discharge points during commissioning

Emission	Discharge point	Discharge point location
Treated wastewater	Sprinklers within the Irrigation Spray Field	Irrigation spray field as shown in Figure 2 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	Unit	Frequency	Method
Sprinklers within irrigation spray field	WWTP irrigation tank outlets	pH ¹	-	Daily	Spot sample in accordance with AS/NZS 5667.1 and AS/NZS 5667.10
		Residual free chlorine ¹	mg/L	Fortnightly	
		BOD			
		TSS			
		TDS			
		TN			
		TP			
		<i>E. coli</i>	cfu or MPN / 100mL		
	Irrigation pump flow meters	Volume ¹	kL/day	Continuous	N/A

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

8. 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.
9. The works approval holder must ensure the Environmental Commissioning Report required by condition 8 of this works approval includes the following:
 - (a) a summary of the environmental commissioning activities undertaken, including timeframes and amount of sewage processed;
 - (b) the discharge monitoring results in accordance with condition 7;
 - (c) a summary of the environmental performance of each item of infrastructure or equipment as constructed or installed (as applicable), which at minimum includes records detailing:
 - (i) a comparison of the treated wastewater monitoring results in comparison to the discharge design requirements specified in condition 1;
 - (ii) the commissioning of the process control and telemetry system; and
 - (iii) an assessment of the irrigation spray field performance against operational requirements in condition 5.
 - (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.

Time limited operations phase

Commencement and duration

10. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 and 12 where the Environmental Commissioning Report for that item of infrastructure as required by condition 8 has been submitted by the works approval holder.
11. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1 and 12:
 - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 10 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 11(a).

Time limited operations requirements and emission limits

12. 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

Infrastructure		Operational requirements	Infrastructure location
1.	Wastewater Treatment Plant (WWTP)	(a) Only domestic sewage waste is authorised to be received and treated; (b) Waste must be received via the WWTP inlet at a rate of no more than 45 m ³ /day; (c) Sludge is contained within sealed sludge tanks prior to drying and removal by a licensed waste carrier for disposal to a licensed disposal facility; (d) Screenings are contained within a sealed bin prior to disposal to a licensed disposal facility; and (e) Volumetric flow meters must be maintained on each WWTP outlet to the corresponding irrigation field.	As depicted in Figure 2 of Schedule 1
2.	Irrigation spray field	(a) No more than 45 m ³ /day of treated wastewater is to be applied to the irrigation area; (b) Irrigation is managed to prevent ponding and pooling of wastewater on the ground surface of the irrigation spray field; (c) No treated wastewater is permitted to be discharged outside of the irrigation area as defined by Figure 2 of Schedule 1; (d) Spray field to be pasture seeded; and (e) Annually, the pasture growth is to be slashed or grazed by sheep; and (f) Perimeter fencing and safety signage must be maintained.	As depicted in Figure 2 of Schedule 1
3.	Chemical / reagents storage	(a) The integrity of all tanks, storage receptacles and associated bunding must be maintained.	As depicted in Figure 4 of Schedule 1

13. During time limited operations, the works approval holder must ensure that treated wastewater is only discharged to the discharge point listed in Table 6, in accordance with the concentration and loading limits specified in Table 6.

Table 6: Emission and discharge limits during time limited operations

Discharge point	Parameter	Concentration limit	Loading limit
Sprinklers within irrigation spray field	pH	6.5 - 8.5	N/A
	BOD	<20 mg/L	
	TSS	<30 mg/L	
	TN	<30 mg/L	180 kg/ha (over the time limited operations period)
	TP	<8 mg/L	20 kg/ha (over the time limited operations period)
	Residual free chlorine	0.2 to 2.0 mg/L	N/A
	<i>E. coli</i>	<1,000 cfu/100mL	

Monitoring during time limited operations

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

Table 7: Emissions and discharge monitoring during time limited operations

Discharge point	Monitoring location	Parameter	Unit	Frequency	Method
Sprinklers within irrigation spray field	WWTP irrigation tank outlets	pH ¹	-	Daily	Spot sample in accordance with AS/NZS 5667.1 and AS/NZS 5667.10
		Residual free chlorine ¹	mg/L	Monthly	
		BOD			
		TSS			
		TDS			
		TN			
		TP			
		<i>E. coli</i>	cfu or MPN / 100mL		
	Irrigation pump flow meters	Volume ¹	kL/day	Continuous	N/A

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

Compliance reporting

15. 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 30 calendar days before the expiration date of the works approval, whichever is the sooner.
16. The works approval holder must ensure the report required by condition 15 includes the following:
- a summary of the time limited operations, including timeframes and amount of wastewater processed;
 - the discharge monitoring results obtained during time limited operations in accordance with condition 13 and 14;
 - 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 13; and
 - assessment of the irrigation spray fields performance against operational requirements in condition 12.
 - a review of performance and compliance against the conditions of the works approval; and
 - 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.

Requirements (all phases)

17. The works approval holder must 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.
18. The works approval holder must 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.
19. The works approval holder must ensure that all sample analysis undertaken pursuant to conditions 7 and 14 is undertaken by a holder of a current accreditation from NATA for the methods of analysis relevant to the corresponding parameter.

Records and reporting (general)

20. 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.
21. 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) monitoring programmes undertaken in accordance with conditions 7, 13 and 14; and
 - (c) complaints received under condition 20.
22. The books specified under condition 21 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 1940	means Australian Standard AS 1940 <i>The storage and handling of flammable and combustible liquids</i> .
AS/NZS 5667.1	means Australian and New Zealand Standard AS/NZS 5667.1 <i>Water quality — Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples</i> .
AS/NZS 5667.10	means Australian and New Zealand Standard AS/NZS 5667.10 <i>Water quality — Sampling, Part 10: Guidance on sampling of waste waters</i> .
BOD	biochemical oxygen demand
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 or MPN / 100mL	colony forming units or most probably number 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.
<i>E. coli</i>	<i>Escherichia coli</i>
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	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus

Term	Definition
Report	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>
kL	Means kilolitres(s).
Km	Means kilometre(s).
m ³	Means cubic metres.
mg/L	Means milligram per litre.
NATA	National Association of Testing Authorities, Australia
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.
TDS	means total dissolved solids
TSS	means total suspended solids
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.
TN	means total nitrogen
TP	means total phosphorus
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).

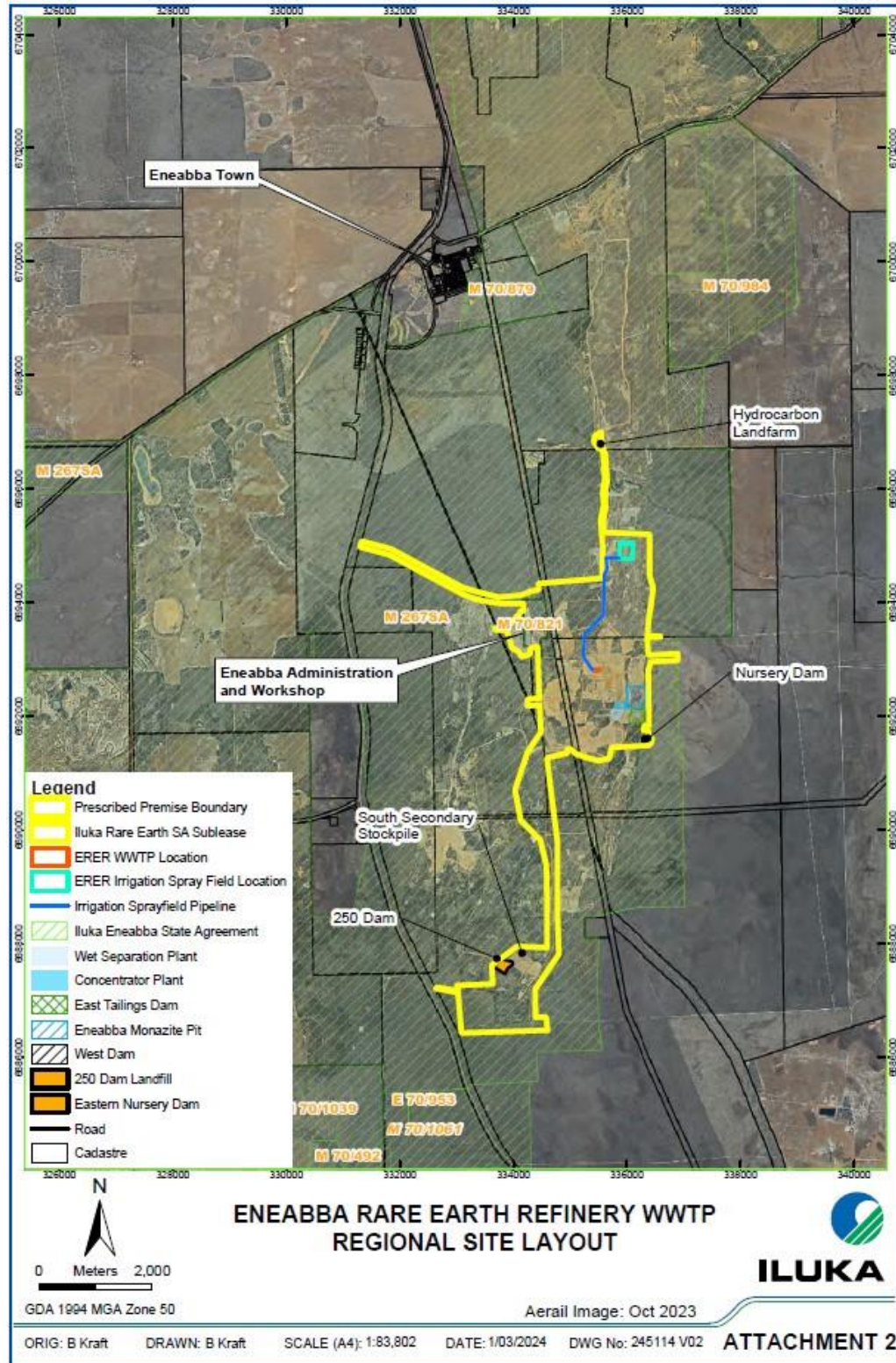


Figure 1: Map of the boundary of the prescribed premises

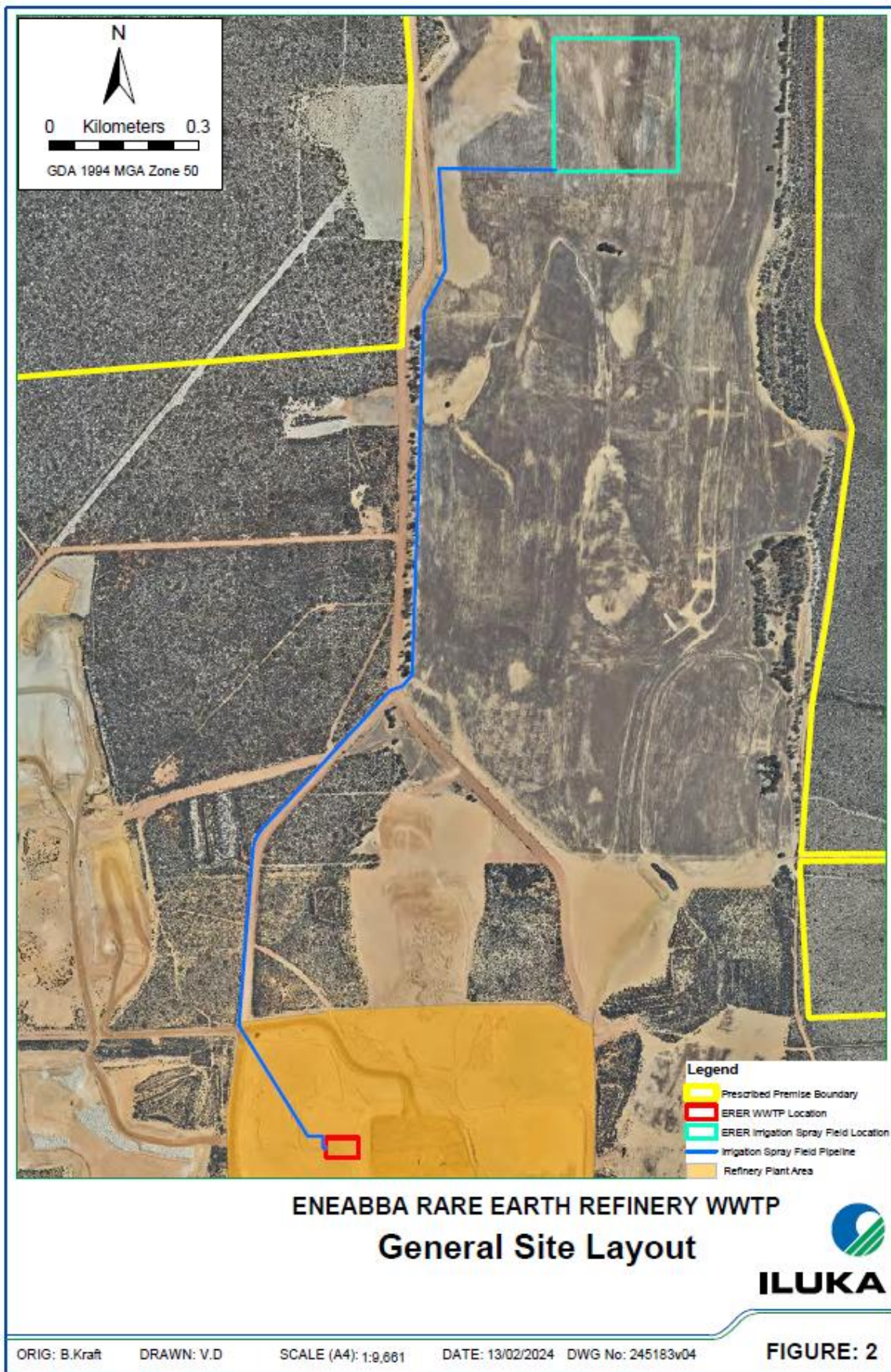


Figure 2: Map of the layout of the WWTP, spray field and connecting pipeline

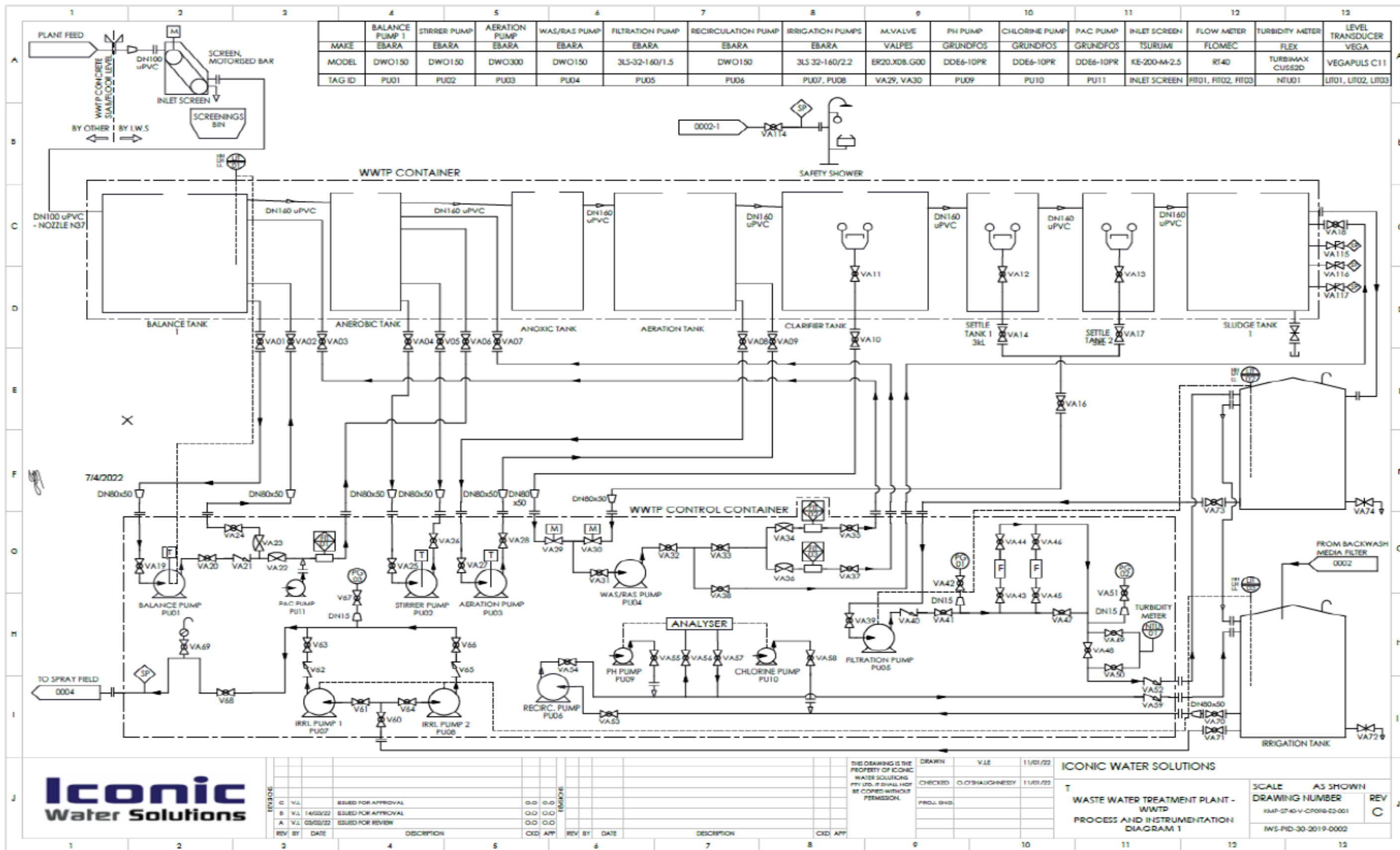


Figure 3: WWTP Process Design

W6917/2024/1 (issued: 16 July 2024)
IR-T05 Works approval template (v6.0) (September 2022)

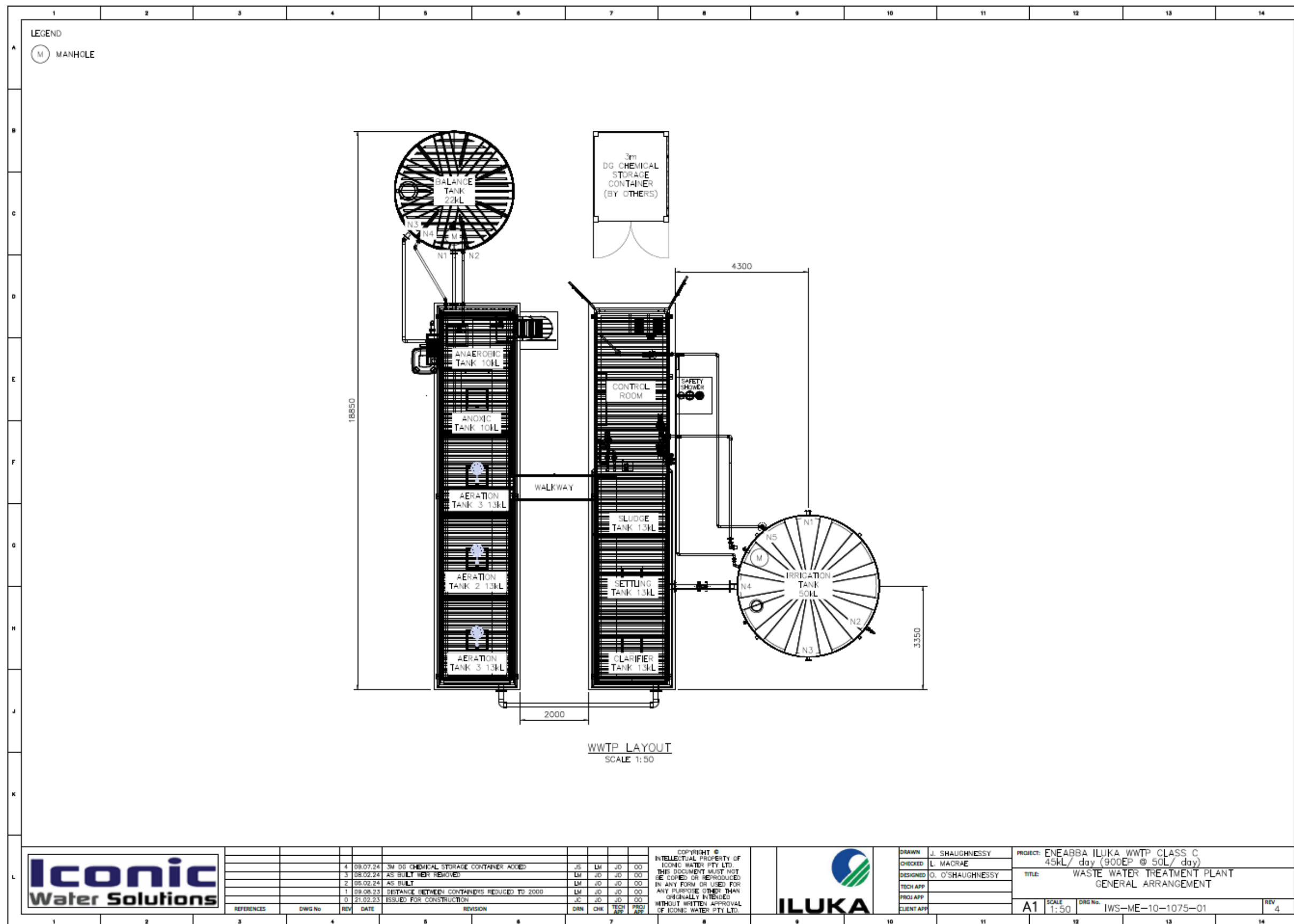


Figure 4: WWTP General Arrangement

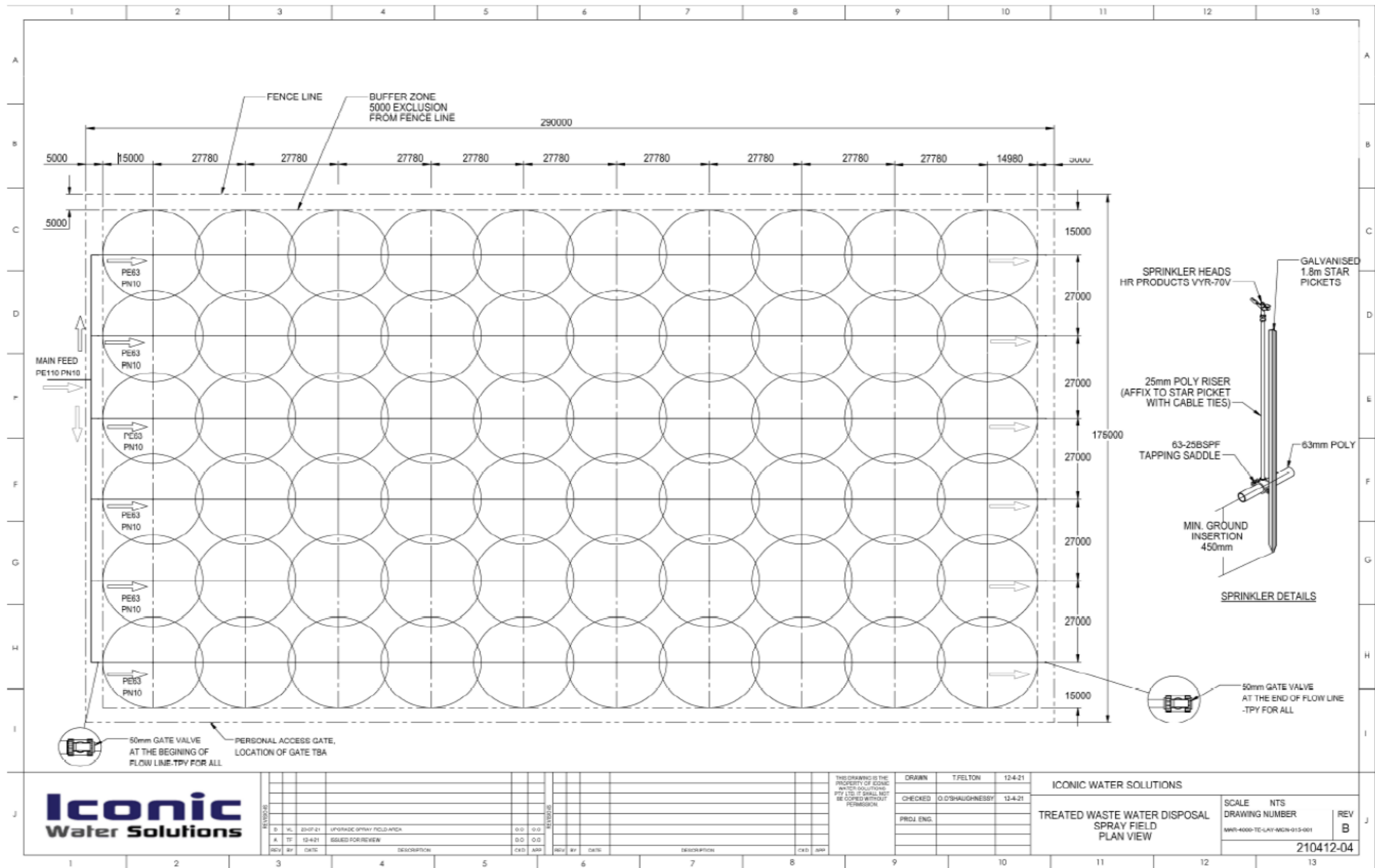


Figure 5: WWTP Irrigation Spray field design

Schedule 2: Premises boundary

The corners of the premises boundary are the coordinates listed in Table 9, Table 10, Table 11 and Table 12.

Table 9: Premises boundary coordinates (GDA2020)

	Easting (m)	Northing (m)		Easting (m)	Northing (m)
0.	336887.6246	6693095.719	49.	334175.6243	6693977.557
1.	336373.2575	6693074.29	50.	334175.24	6693852.828
2.	336355.795	6693369.407	51.	334123.8192	6693849.472
3.	336357.205	6693389.053	52.	334098.5391	6693780.373
4.	336584.718	6693391.848	53.	334051.3496	6693746.666
5.	336582.9216	6693404.936	54.	333894.7686	6693556.295
6.	336358.2875	6693404.135	55.	333672.915	6693549.945
7.	336379.6076	6693701.195	56.	333677.2806	6693509.861
8.	336412.9451	6693903.919	57.	333873.7342	6693513.433
9.	336460.5702	6694259.52	58.	333882.1483	6693492.36
10.	336392.3076	6694473.833	59.	333980.5654	6693190.504
11.	336393.8951	6694654.808	60.	334091.7978	6693134.888
12.	336397.484	6695195.417	61.	334137.3019	6693040.509
13.	335588.8558	6695230.062	62.	334294.0385	6693086.013
14.	335576.848	6695455.809	63.	334292.3532	6693188.819
15.	335622.4776	6695674.351	64.	334422.6835	6693222.823
16.	335612.8714	6695972.145	65.	334429.5187	6693029.84
17.	335648.8948	6696123.443	66.	334451.7437	6692432.78
18.	335615.273	6696618.165	67.	334456.3225	6692310.406
19.	335572.0448	6696721.432	68.	334245.8395	6692296.591
20.	335552.8323	6696841.51	69.	334250.2915	6692178.33
21.	335545.6277	6696995.21	70.	334460.7572	6692191.884
22.	335425.5495	6696930.368	71.	334478.4138	6691719.991
23.	335415.9433	6696819.896	72.	334250.2915	6691360.313
24.	335495.1948	6696704.621	73.	334023.6309	6690701.231
25.	335543.2261	6696711.826	74.	334128.1678	6690166.6
26.	335576.848	6696613.362	75.	334474.6327	6689817.148
27.	335610.4698	6696176.278	76.	334579.1696	6689360.172
28.	335572.0448	6695950.531	77.	334597.0902	6688568.679
29.	335588.8558	6695707.973	78.	334597.0902	6687920.551
30.	335535.3733	6695462.785	79.	334061.0371	6687943.934
31.	335552.8556	6695229.169	80.	333615.9067	6687614.382
32.	335573.7629	6694954.387	81.	333634.649	6687284.829
33.	335555.8423	6694425.729	82.	333008.1302	6687257.489
34.	334438.7915	6694336.126	83.	333017.9129	6687171.938
35.	334447.2207	6694222.895	84.	332952.1525	6687170.785
36.	334290.902	6694193.866	85.	332680.4581	6687224.431
37.	334130.6451	6694128.37	86.	332631.4262	6687214.048
38.	333746.6365	6694094.923	87.	332641.8095	6687192.128
39.	333429.5887	6694168.991	88.	332683.3424	6687200.781
40.	333107.8737	6694262.381	89.	332948.6914	6687147.711
41.	331843.7691	6694945.248	90.	333020.2203	6687148.288
42.	331322.9527	6695080.242	91.	333026.6465	6687087.696
43.	331295.1322	6694976.833	92.	333080.7303	6686421.79
44.	331815.2212	6694835.624	93.	334598.4557	6686472.493
45.	333082.7515	6694157.324	94.	334573.1797	6686704.191
46.	333279.0339	6694077.269	95.	334388.0165	6686695.976
47.	333526.6844	6694016.944	96.	334382.7806	6687194.241
48.	333797.3401	6693976.615	97.	334802.9213	6687808.052

	Easting (m)	Northing (m)		Easting (m)	Northing (m)
98.	334770.8477	6688561.479	153.	328176.7576	6685822.617
99.	334774.2279	6689808.785	154.	327376.9526	6685809.457
100.	334585.1431	6691265.73	155.	327372.1622	6686290.604
101.	334949.2672	6691348.515	156.	327311.8392	6686289.603
102.	334950.8547	6691416.778	157.	325352.0269	6686257.386
103.	335019.1173	6691410.428	158.	324018.542	6686235.463
104.	335087.38	6691340.578	159.	323965.6622	6689453.361
105.	335252.4803	6691280.253	160.	323959.8194	6689809.085
106.	335496.9558	6691215.165	161.	323958.8275	6689869.52
107.	335687.4562	6691256.44	162.	322002.757	6689837.06
108.	335728.99	6691448.911	163.	322361.358	6690019.482
109.	336385.9576	6691480.278	164.	322497.2774	6690147.644
110.	336428.1423	6691539.973	165.	323708.7731	6690763.88
111.	336445.1297	6691606.084	166.	323680.501	6692492.463
112.	336384.1186	6691652.807	167.	324082.7718	6692499.034
113.	336383.1378	6691744.833	168.	324077.8495	6692800.734
114.	336286.756	6691752.021	169.	327246.5777	6692852.483
115.	336306.5989	6691835.001	170.	327306.9244	6692853.455
116.	336387.0215	6691840.725	171.	327295.4196	6694012.021
117.	336378.0201	6692224.976	172.	327276.0877	6695962.39
118.	336374.845	6692809.177	173.	327267.7472	6696802.788
119.	336414.5326	6692956.815	174.	327340.5736	6696963.201
120.	336890.052	6692979.564	175.	327889.4411	6697339.626
121.	336887.6246	6693095.719	176.	328055.9584	6697453.825
122.	336921.1597	6691821.943	177.	328219.7413	6697571.964
123.	336928.6366	6691537.97	178.	328231.4117	6697580.383
124.	337011.4304	6691537.963	179.	328382.8826	6697689.641
125.	337003.4574	6690085.108	180.	328707.9528	6697924.119
126.	337024.3325	6688655.981	181.	329834.2334	6698658.397
127.	336197.4823	6688643.666	182.	330120.2329	6698818.064
128.	335417.8852	6688491.463	183.	330585.5155	6699077.821
129.	335424.655	6688457.842	184.	330750.9001	6699170.152
130.	335244.7665	6688455.123	185.	331131.9782	6699382.899
131.	335250.0682	6688103.17	186.	331132.4494	6699383.161
132.	335495.9142	6688106.874	187.	331143.0744	6699389.094
133.	335478.2749	6687650.56	188.	331144.5774	6699389.932
134.	335460.3504	6687188.37	189.	331160.6243	6699398.89
135.	335483.0896	6686877.584	190.	331548.8686	6699615.636
136.	335539.0206	6686113.212	191.	331588.1976	6699545.172
137.	335088.9803	6686106.377	192.	331613.3441	6699500.119
138.	334396.6944	6686095.862	193.	331701.3888	6699342.375
139.	334429.1851	6685583.245	194.	331712.2458	6699322.92
140.	333220.4667	6685511.441	195.	331832.1474	6699108.084
141.	333231.0267	6685449.274	196.	332126.905	6698580.247
142.	332935.859	6685435.214	197.	332267.9648	6698607.317
143.	332136.7751	6685397.148	198.	332400.2139	6698632.679
144.	332121.6149	6685378.515	199.	332469.7844	6698646.021
145.	331709.4743	6685372.324	200.	333038.1178	6698755.225
146.	331701.2299	6685875.144	201.	333611.6972	6698865.089
147.	331701.1406	6685880.614	202.	333710.4789	6698884.008
148.	331375.9116	6685875.262	203.	334495.216	6699034.315
149.	330576.1975	6685862.102	204.	334729.6989	6699079.228
150.	329776.3195	6685848.939	205.	334412.9609	6699762.873
151.	329469.9749	6685843.898	206.	333968.6565	6700722.497
152.	328976.4407	6685835.777	207.	333943.3045	6700777.251

	Easting (m)	Northing (m)		Easting (m)	Northing (m)
208.	333487.3315	6700566.351	263.	336681.1945	6702149.601
209.	333396.0493	6700524.131	264.	337425.2627	6702400.796
210.	333071.1013	6701667.256	265.	337435.2027	6700752.187
211.	332971.7403	6702016.775	266.	337727.5728	6700765.847
212.	332936.0847	6703238.126	267.	337777.2057	6699815.122
213.	332625.5016	6703234.635	268.	336713.6659	6699790.148
214.	332513.8432	6704661.905	269.	336719.4351	6699371.015
215.	332220.8885	6704657.835	270.	336737.3092	6698142.391
216.	332218.057	6704667.799	271.	337369.5894	6698178.421
217.	331793.8249	6706159.995	272.	337301.3856	6696721.864
218.	331801.5848	6706160.103	273.	337756.0024	6696728.706
219.	331784.6827	6707366.856	274.	337815.9859	6696729.608
220.	331452.0327	6707362.19	275.	337816.2512	6696709.611
221.	331254.5895	6708056.627	276.	337827.9634	6695823.909
222.	331024.7255	6708865.093	277.	337843.9172	6694617.536
223.	330873.3371	6710371.754	278.	337849.231	6694215.688
224.	330597.4306	6710367.938	279.	337859.8727	6693411.264
225.	330500.1983	6710709.908	280.	336880.9301	6693398.422
226.	334952.3602	6710771.512	281.	336887.6246	6693095.719
227.	334957.2375	6710429.214			
228.	335762.1258	6710439.567			
229.	335783.2088	6708931.838			
230.	335794.4668	6708126.338			
231.	336598.3606	6708138.682			
232.	336595.0803	6708375.328			
233.	336583.9306	6709179.78			
234.	336572.7852	6709984.233			
235.	338081.0465	6710004.801			
236.	338286.8184	6710007.605			
237.	338286.5444	6710027.717			
238.	339510.3401	6710044.397			
239.	339511.0998	6710024.297			
240.	339541.544	6709219.786			
241.	339571.9903	6708415.231			
242.	339602.4292	6707610.96			
243.	339617.736	6707206.533			
244.	339392.5209	6706803.79			
245.	339334.6099	6706700.23			
246.	339344.2602	6705998.397			
247.	339355.3235	6705193.989			
248.	339366.3897	6704389.561			
249.	339372.4874	6703946.354			
250.	339373.1181	6703900.543			
251.	339002.316	6703580.025			
252.	338718.4887	6703334.688			
253.	338512.5491	6703156.675			
254.	338378.565	6703040.86			
255.	338273.2403	6702949.818			
256.	337851.2647	6702585.064			
257.	337662.1065	6702516.695			
258.	337620.4157	6702510.463			
259.	337621.1616	6702449.488			
260.	337425.1427	6702420.199			
261.	336983.5376	6702354.216			
262.	336680.3683	6702209.658			

Table 10: Pipeline boundary coordinates (GDA1994 MGA Zone 50)

	Easting (M)	Northing (M)
1.	335401.067	6692717.857
2.	335362.658	6692717.850
3.	335227.710	6693058.933
4.	335239.911	6693204.856
5.	335256.016	6693409.831
6.	335257.968	6693427.888
7.	335265.777	6693442.529
8.	335277.490	6693457.659
9.	335296.523	6693505.486
10.	335321.901	6693479.132
11.	335531.546	6693732.627
12.	335556.646	6693741.695
13.	335576.168	6693764.633
14.	335600.225	6694495.355
15.	335643.219	6694578.037
16.	335629.990	6694783.090

Table 11: Wastewater Treatment Plant coordinates (GDA1994 MGA Zone 50)

	Easting	Northing
1.	335401.360	6692676.234
2.	335401.045	6692720.927
3.	335451.658	6692720.927
4.	335451.496	6692677.219

Table 12: Spray field boundary coordinates (GDA1994 MGA Zone 50)

	Easting	Northing
5.	336110.566	6694776.973
6.	336110.239	6695044.008
7.	335861.707	6695044.018
8.	335861.391	6694777.014