



Works Approval Number	W6238/2019/1
Works Approval Holder	Pilbara Iron Pty Ltd
ACN	107 210 248
Registered business address	Level 18, Central Park 152 – 158 St Georges Terrace PERTH WA 6000
File Number	DER2019/0002018
Duration	6 August 2019 to 5 August 2022
Date of issue	5 August 2019
Prescribed Premises	Category 54 – Sewage Facility Category 12 – Screening, etc. of material
Premises	Koodaideri Railway Project Miscellaneous Licence for Railway 7 (L7SA) Shire of Ashburton TOM PRICE WA 6751 As defined by the coordinates in Schedule 1 of the Works Approval

This Works Approval is granted to the Works Approval Holder, subject to the following conditions, on 5 August 2019, by:

Manager, Process Industries

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

Explanatory notes

These explanatory notes do not form part of this Works Approval.

Defined terms

Definition of terms used in this Works Approval can be found at the start of this Works Approval. Terms which are defined have the first letter of each word capitalised throughout this Works Approval.

Department of Water and Environmental Regulation

The Department of Water and Environmental Regulation (DWER) is 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 *Environmental Protection Act 1986* (WA) (EP Act). The Department also monitors and audits compliance with licences and works approvals, takes enforcement action and develops and implements licensing and industry regulation policy.

Works Approval

Section 52 of the EP Act provides that an occupier of any premises commits an offence if any work is undertaken on, or in relation to, the premises which causes the premises to become, or to become capable of being, Prescribed Premises, except in accordance with a works approval.

Section 56 of the EP Act provides that an occupier of Prescribed Premises commits an offence if Emissions are caused or increased or permitted to be caused or increased, or Waste, noise, odour or electromagnetic radiation is altered or permitted to be altered from Prescribed Premises, except in accordance with a works approval or licence.

Categories of Prescribed Premises are defined in Schedule 1 of the *Environment Protection Regulations 1987* (WA) (EP Regulations).

This Works Approval does not authorise any activity which may be a breach of the requirements of another statutory authority including, but not limited to, the following:

- conditions imposed by the Minister for Environment under Part IV of the EP Act;
- conditions imposed by DWER for the clearing of native vegetation under Part V, Division 2 of the EP Act;
- any requirements under the *Waste Avoidance and Resource Recovery Act 2007*;
- any requirements under the *Environmental Protection (Controlled Waste) Regulations 2004*; and
- any other requirements specified through State legislation.

It is the responsibility of the Works Approval Holder to ensure that any action or activity referred to in this Works Approval is permitted by, and is carried out in compliance with, statutory requirements.

The Works Approval Holder must comply with the Works Approval. Contravening a Works Approval Condition is an offence under s.55 of the EP Act.

Responsibilities of Works Approval Holder

Separate to the requirements of this Works Approval, general obligations of Works Approval Holders are set out in the EP Act and the regulations made under the EP Act. For example, the Works Approval Holder must comply with the following provisions of the EP Act:

- the duties of an occupier under s.61; and
- restrictions on making certain changes to Prescribed Premises unless the changes are in accordance with a Works Approval, Licence, closure notice or environmental protection notice (s.53).

Strict penalties apply for offences under the EP Act.

Reporting of incidents

The Works Approval Holder has a duty to report to the Department all Discharges of Waste that have caused or are likely to cause Pollution, Material Environmental Harm or Serious Environmental Harm, in accordance with s.72 of the EP Act.

Offences and defences

The EP Act and its regulations set out a number of offences including:

- Offence of emitting an Unreasonable Emission from any Premises under s.49.
- Offence of causing Pollution under s.49.
- Offence of dumping Waste under s.49A.
- Offence of discharging Waste in circumstances likely to cause Pollution under s.50.
- Offence of causing Serious Environmental Harm (s.50A) or Material Environmental Harm (s.50B).
- Offence of causing Emissions which do not comply with prescribed standards (s.51).
- Offences relating to Emissions or Discharges under regulations prescribed under the EP Act, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)*.
- Offences relating to noise under the *Environmental Protection (Noise) Regulations 1997 (WA)*.

Section 53 of the EP Act provides that a Works Approval Holder commits an offence if Emissions are caused, or altered, from a Prescribed Premises unless done in accordance with a Works Approval, Licence or the requirements of a closure notice or an environmental protection notice.

Defences to certain offences may be available to a Works Approval Holder and these are set out in the EP Act. Section 74A(b)(iii) provides that it is a defence to an offence for causing Pollution, in respect of an Emission, or for causing Serious Environmental Harm or Material Environmental Harm, or for discharging or abandoning Waste in water to which the public has access, if the Works Approval Holder can prove that an Emission or Discharge occurred in accordance with a Works Approval.

This Works Approval specifies the Emissions and Discharges, and the limits and Conditions which must be satisfied in respect of specified Emissions and Discharges, in order for the defence to offence provision to be available.

Authorised Emissions and Discharges

The specified and general Emissions and Discharges from the Works authorised through this Works Approval are authorised to be conducted in accordance with the Conditions of this Works Approval.

Amendment of Works Approval

The Works Approval Holder can apply to amend the Conditions of this Works Approval under s.59 of the EP Act. An application form for this purpose is available from DWER.

The CEO may also amend the Conditions of this Works Approval at any time on the initiative of the CEO without an application being made.

Duration of Works Approval

The Works Approval will remain in force for the duration set out on the first page of this Works Approval or until it is surrendered, suspended or revoked in accordance with s.59A of the EP Act.

Suspension or revocation

The CEO may suspend or revoke this Works Approval in accordance with s.59A of the EP Act.

Definitions and interpretation

Definitions

In this Works Approval, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
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
Condition	means a condition to which this Works Approval is subject under s.62 of the EP Act.
Commissioning	Process by which an equipment, facility, or plant (which is installed, or is complete or near completion) is tested to verify if it functions according to its design objectives or specifications
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.
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Works Approval Holder in writing and sent to the Works Approval's address for notifications, as described at the front of this Works Approval, in relation to: (a) compliance with the EP Act or this Works Approval; (b) the Books or other sources of information maintained in accordance with this Works Approval; or (c) the Books or other sources of information relating to Emissions from the Premises.
Discharge	has the same meaning given to that term under the EP Act.
DWER	Department of Water and Environmental Regulation
Emission	has the same meaning given to that term under the EP Act.
Environmental Harm	has the same meaning given to that term under the EP Act.
EP Act	means the <i>Environmental Protection Act 1986</i> (WA).
EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA).
Implementation Agreement or	has the same meaning given to that term under the EP Act.

Decision	
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
Material Environmental Harm	has the same meaning given to that term under the EP Act.
Pollution	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Works Approval applies, as specified at the front of this Works Approval and as shown on the map in Schedule 1 to this Works Approval.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Serious Environmental Harm	has the same meaning given to that term under the EP Act.
Unreasonable Emission	has the same meaning given to that term under the EP Act.
Waste	has the same meaning given to that term under the EP Act.
Works	refers to the Works described in Schedule 2, at the locations shown in Schedule 1 of this Works Approval to be carried out at the Premises, subject to the Conditions.
Works Approval	refers to this document, which evidences the grant of the works approval by the CEO under s.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.

Interpretation

In this Works Approval:

- (a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';
- (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 means the version of the standard, guideline or code of practice in force at the time of granting of this Works Approval and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the Works Approval; and
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act.

Conditions

Infrastructure and equipment

1. The Works Approval Holder must install and undertake the Works for the infrastructure and equipment:
 - (a) specified in Column 1;
 - (b) to the requirements specified in Column 2; of Table 2 below.
2. The Works Approval Holder must not depart from the requirements specified in Column 2 of Table 2 except:
 - (a) where such departure does not increase risks to public health, public amenity or the environment; and
 - (b) all other Conditions in this Works Approval are still satisfied.
3. Subject to Condition 1, within 30 days of the completion of the Works specified in Column 1 of Table 2, the Works Approval Holder must provide to the CEO a report/engineering/building certification from a suitably qualified professional confirming each item of infrastructure or component of infrastructure specified in Column 1 of Table 2 below has been constructed with no material defects and to the requirements specified in Column 2.
4. Where a departure from the requirements specified in Column 2 of Table 2 occurs and is of a type allowed by Condition 2, the Works Approval Holder must provide to the CEO a description of, and explanation for, the departure along with the certification required by Condition 2(b).

Table 2: Infrastructure and equipment requirements table

Column 1	Column 2
Infrastructure/ Equipment	Requirements (design and construction) WWTP (148 kL sewage per day)
WWTP	Designed and constructed to be able to treat up to 148 kL of sewage per day to the following standard:

Column 1	Column 2
Infrastructure/ Equipment	Requirements (design and construction) WWTP (148 kL sewage per day)
	membrane bioreactor system aeration tanks x 2 liquid chlorine tank chemical storage tank carbon filter transfer pumps and pipes 20 x 22.5 kl treated effluent storage tanks (applicant to supply material of tanks) inlet and final effluent flow meters (applicant to confirm) all tanks fitted with audio and visual high volume level alarm systems
Treated effluent sprayfield	Consisting of: minimum 4.1 ha irrigation area signposted perimeter wire fence with access gate irrigation delivery pipes and approximately 30 fixed sprinklers with low drift fan-spray nozzles spaced for even distribution
Infrastructure/ Equipment	Requirements (design and construction) Crushing Plants each with a design capacity of 500 tonnes per hour
Crushing Plants	2 Terex J-1840 Jaw Crushers (or equivalent) incorporating: main conveyor hopper and feeder jaw chamber self-contained diesel engine fitted water sprays
	2 Terex Finlay 883 Mobile Screening plants (or equivalent) incorporating: aggressive screen box hydraulic adjustable modular configuration screen box hydraulic adjustable conveyors self-contained diesel engine fitted water sprays
Processed material stockpiles	Stockpile areas to be located within borrow pits

Commissioning of the WWTP

- The Works Approval Holder shall commission the WWTP for a period no longer than 6 months, following submission of the report required by Condition 3.
- The Works Approval Holder must ensure that all emissions specified in Table 3, are discharged to land only from the corresponding discharge point and only at the corresponding discharge point location and in accordance with the corresponding requirements

Table 3: Authorised discharge points

Discharge Point	Discharge point location	Discharge via irrigation requirements
D1	As defined in Schedule 1 Figure 1: Layout of WWTP and Sprayfield	Irrigation via low drift fan-spray nozzles spaced for even distribution Not more than 148 kL/day applied per day Only irrigate treated wasted wastewater from WWTP to designated irrigation area

7. The Works Approval Holder shall submit to the CEO within 30 days of completion of commissioning in Condition 5, a commissioning report which sets out the monitoring of the WWTP and demonstrating compliance with Table 2 below.

Table 4: Monitoring of WWTP during commissioning

Discharge Point	Parameter	Frequency
D1	Residual and free chlorine ¹	Daily
	Flow volume	Weekly
	5 Day Biological Oxygen Demand (BOD ₅)	Monthly
	Total suspended solids (TSS)	
	Total nitrogen (TN)	
	Total phosphorous (TP)	
	Thermo-tolerant Faecal Coliforms	
	pH ¹	

Note 1: In-situ non-NATA accredited analysis permitted

8. The Works Approval holder shall handle and preserve all water samples collected during the monitoring of the WWTP in accordance with 'Australian Standard 5667.1:1998 Water Quality – Sampling' and have analyses conducted by an laboratory with current National Association of Testing Authorities accreditation for the specified parameters.

Wastewater Emissions to Land Loading Limits

9. The licence holder must ensure that emissions from the discharge point listed in Table 4 for the corresponding parameters do not exceed the corresponding loading limit when monitored in accordance with Table 5.

Table 5: Irrigation emission limits

Parameter	Loading limit
Total N	≤ 86 kg/ha over 6 months
Total P	≤ 10 kg/ha over 6 months
BOD ₅	< 30 kg/ha/day

Operation of Crushing Plants

10. The Works Approval Holder shall:
- provide written advice to the CEO within 7 days of commencing operation of the Crushing Plants, specifying the date on which operation commenced;
 - operate the Crushing Plants for a period no longer than 6 months following the date on which operations commenced ; and
 - operate Crushing Plants within various designated borrow pits only.

Emissions

11. The Works Approval Holder must not cause any Emissions from the Works authorised through this Works Approval except for specified Emissions and general Emissions described in Column 1 of Table 6, subject to the exclusions, limitations or requirements specified in Column 2, of Table 6.

Table 6: Authorised Emissions table

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
Specified Emissions	
Disposal of treated wastewater via irrigation to land.	Subject to compliance with Conditions 6, 7 and 9
General Emissions (excluding Specified Emissions)	
Emissions which arise from undertaking the Works and Primary Activities set out in Schedule 2.	<p>Emissions excluded from General Emissions are:</p> <ul style="list-style-type: none"> • Unreasonable Emissions; or • Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or • Discharges of Waste in circumstances likely to cause Pollution; or • Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or • Emissions or Discharges which do not comply with an Approved Policy; or • Emissions or Discharges which do not comply with prescribed standard; or • Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or • Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.

Record-keeping

12. The Works Approval Holder must maintain accurate Books including information, reports and data in relation to the Works and the Books must:
 - (a) be legible;
 - (b) if amended, be amended in such a ways that the original and subsequent amendments remain legible or are capable of retrieval;
 - (c) be retained for at least 3 years from the date the Books were made;
 - (d) be available to be produced to an Inspector or the CEO.

13. The Works Approval Holder must comply with a Department Request within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.

Reporting

14. The Works Approval holder must submit to the CEO by no later than 30 days after the end of the commissioning period during which irrigation to land has occurred, a report for the previous 6 monthly periods for the conditions listed in Table , and which provides information in accordance with the corresponding requirement set out in Table 7.

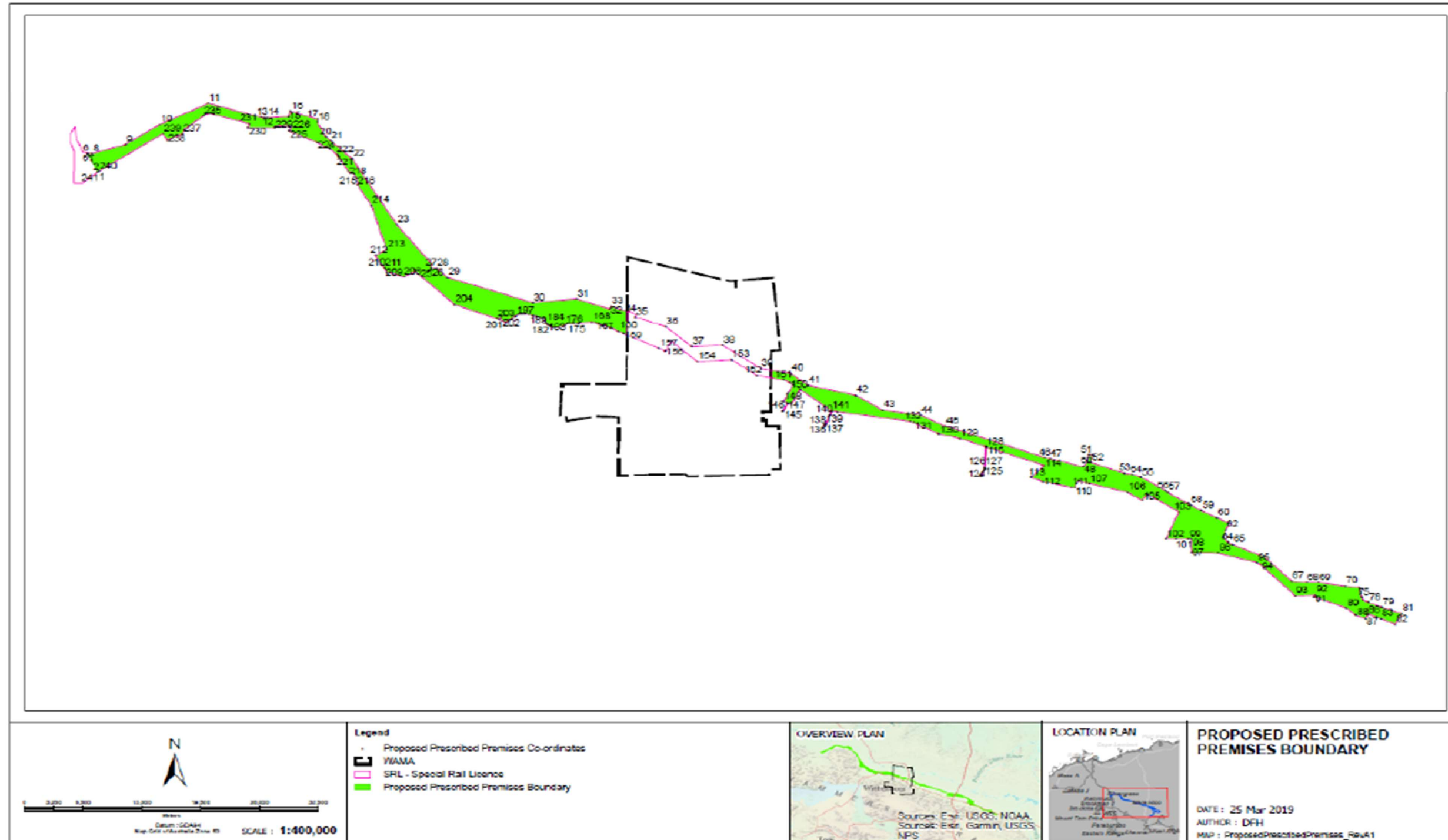
Table 7: Monthly Reporting

Conditions	Requirement
7 and 9	(a) Tabulated treated wastewater monitoring data showing the calculation of the monthly loads of N, P and BOD to irrigation area defined in Figure 1. (b) Comparison of the monthly loads to the limits specified in Table .

Schedule 1: Maps

Premises boundary map

The Premises are shown in the map below.



Premises boundary coordinates

The Premises boundary is defined by the coordinates set out below.

ID	Easting	Northing
1	567979	7568474
2	567404	7569797
3	567331	7569964
4	567282	7570079
5	567058	7570595
6	566936	7570875
7	566882	7571000
8	567398	7570915
9	571063	7572109
10	574852	7574752
11	580218	7577539
12	586056	7575708
13	586388	7575636
14	586706	7575633
15	589077	7575806
16	589305	7576476
17	592371	7575435
18	592260	7575108
19	592929	7573665
20	593225	7573098
21	593724	7572581
22	596116	7570261
23	601043	7561510

ID	Easting	Northing
24	604876	7556402
25	604872	7555779
26	604871	7555754
27	604871	7555754
28	605508	7555750
29	606637	7554585
30	616036	7551141
31	620891	7551662
32	624590	7550301
33	624728	7550676
34	627544	7549641
35	627406	7549265
36	630739	7548039
37	633620	7545369
38	637030	7545568
39	641276	7542494
40	644600	7541826
41	646523	7540259
42	651746	7538971
43	654732	7536994
44	658909	7536323
45	661635	7534863
46	672509	7530715

ID	Easting	Northing
47	673030	7530552
48	676738	7529516
49	677246	7530317
50	677344	7531108
51	677746	7531103
52	677616	7530058
53	681261	7528665
54	682205	7528508
55	683107	7528096
56	685796	7526310
57	686071	7526072
58	688605	7524378
59	689780	7523638
60	691514	7522714
61	692903	7521954
62	692513	7521158
63	692200	7520068
64	692743	7519498
65	693243	7519143
66	696768	7517531
67	699747	7514329
68	701410	7514149
69	702716	7514183

ID	Easting	Northing
70	705673	7513692
71	707204	7513489
72	707281	7513186
73	707281	7513186
74	707398	7512719
75	707515	7512253
76	707617	7511850
77	708240	7511578
78	708239	7511578
79	709724	7510899
80	710817	7510495
81	711925	7510085
82	711228	7508643
83	709619	7509379
84	709159	7509590
85	708220	7510020
86	708146	7509869
87	707934	7509429
88	706879	7509836
89	705804	7510783
90	702527	7512168
91	702238	7512290
92	702385	7512550

ID	Easting	Northing
93	700171	7512406
94	696393	7516466
95	695939	7516794
96	691644	7518020
97	688681	7518056
98	688703	7519901
99	688389	7519905
100	688277	7519906
101	686988	7519922
102	685866	7519936
103	687317	7523499
104	683803	7525833
105	683249	7525000
106	681635	7526072
107	677394	7527256
108	676223	7527583
109	675995	7527224
110	675814	7526625
111	675431	7526741
112	672286	7527461
113	670975	7528043
114	672402	7529685
115	666049	7532109

ID	Easting	Northing
116	665901	7529263
117	665899	7529215
118	665472	7528237
119	665472	7528237
120	665456	7528202
121	665367	7528248
122	665713	7529039
123	665713	7529039
124	665800	7529238
125	665801	7529269
126	665811	7529454
127	665811	7529454
128	665950	7532146
129	663133	7533221
130	660915	7533888
131	658187	7535349
132	657748	7535497
133	649791	7536774
134	649179	7536872
135	648947	7536316
136	648442	7535104
137	648359	7534904
138	648266	7534943

ID	Easting	Northing
139	648334	7535105
140	648855	7536354
141	649078	7536888
142	645620	7539705
143	644662	7537692
144	644259	7537884
145	643767	7536850
146	643677	7536893
147	644169	7537927
148	643759	7538122
149	644822	7540355
150	644448	7540660
151	643796	7540967
152	640866	7541557
153	638013	7543622
154	634269	7543404
155	631384	7546078
156	630722	7544710
157	630025	7545170
158	626493	7546901
159	626101	7547099
160	625568	7547382
161	624827	7547778

ID	Easting	Northing
162	624655	7547858
163	624330	7547986
164	624208	7548034
165	623761	7548209
166	623314	7548385
167	622985	7548514
168	622625	7548621
169	621162	7548472
170	621169	7548453
171	621039	7548436
172	620558	7548374
173	620238	7548374
174	619918	7548373
175	619860	7548374
176	619580	7548194
177	619328	7548073
178	618958	7547948
179	618615	7547873
180	618350	7547899
181	618097	7547976
182	617898	7548093
183	617694	7548266
184	617558	7548444

ID	Easting	Northing
185	617311	7549043
186	616922	7549166
187	616481	7549306
188	616053	7549442
189	615626	7549577
190	615198	7549712
191	615091	7549730
192	614922	7549751
193	614819	7549740
194	614726	7549717
195	614622	7549669
196	614406	7549525
197	614189	7549381
198	613782	7549100
199	613374	7548820
200	613069	7548610
201	612325	7548913
202	612633	7549158
203	612105	7549003
204	607407	7550919
205	603073	7555388
206	601847	7554686
207	600271	7555227

ID	Easting	Northing
208	599964	7555233
209	599713	7555672
210	599713	7555788
211	599646	7555788
212	598678	7557480
213	599936	7558201
214	598223	7564074
215	596680	7566813
216	596622	7567716
217	596320	7568256
218	595657	7568630
219	594643	7570431
220	594644	7570579
221	594559	7570580
222	594464	7570749
223	593652	7571537
224	592197	7572391
225	589147	7573862
226	589459	7574548
227	589169	7574609
228	587595	7574494
229	587545	7574312
230	584597	7574328

ID	Easting	Northing
231	584744	7574862
232	580834	7576088
233	580496	7576194
234	579894	7576065
235	579629	7575829
236	577527	7574098
237	577382	7573535
238	575673	7572646
239	575212	7573533
240	568113	7568595
241	567979	7568474

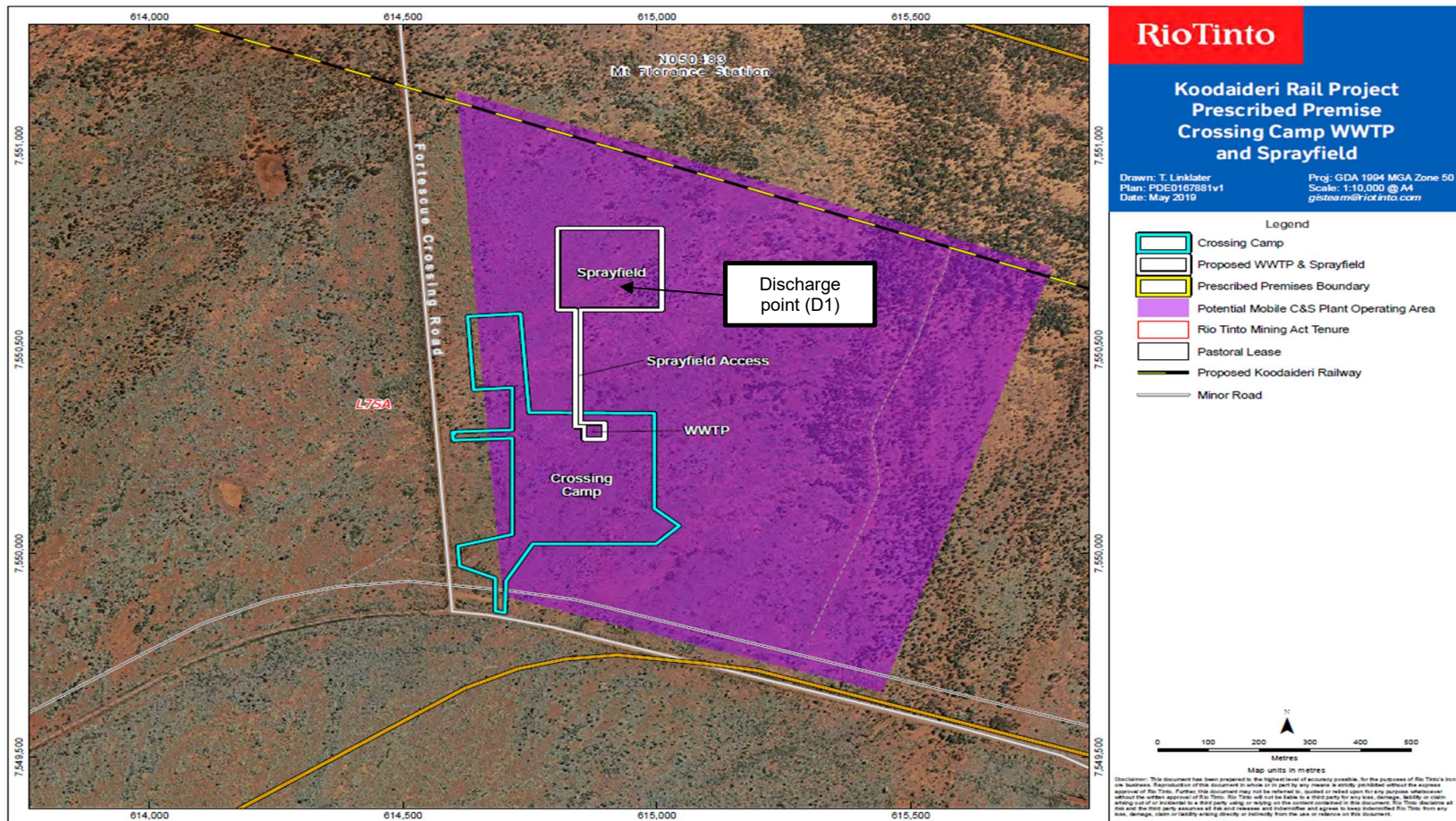


Figure 1: Layout of WWTP and Sprayfield

Schedule 2: Works and Primary Activities

At the time of assessment, Emissions and Discharges from the Works listed in Table 8 were considered in the determination of the risk and related Conditions for the Works Approval.

Table 8: Authorised Works/Primary Activities

Works		Specifications/Drawings
Assembling of pre - constructed infrastructure for WWTP		N/A
Sprayfield to be fenced, signposted with access gate		Figure 1 – Crossing camp, WWTP and sprayfield arrangement
Perimeter of the sprayfield to have an earthen bund		
WWTP positioned within lined earthen bund		N/A
Primary Activity		
Classification of Premises	Description	Premises Production or design capacity
Category 54	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	Not more than 148m ³ per day
Category 12	Screening, etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled sized or separated	Not more than 10 million tonnes processed per year