Licence number L5275/1972/12

Licence holder Pilbara Iron Company (Services) Pty Ltd

**ACN** 107 210 248

Registered business address Level 22, Central Park

152-158 St Georges Terrace

PERTH WA 6000

**DWER file number** INS-0001194

**Duration** 28/05/2014 to 27/05/2033

Date of issue 15/05/2014 **Date of amendment** 03/09/2025

Premises details Greater Paraburdoo Iron Ore Operations

> AML70/246, AML70/4, AG70/4, AG70/14 and L47/326 ROCKLEA WA 6751As defined by the premises map in

Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	30,000,000 tonnes per annual period
Category 6: Mine dewatering	800,000 tonnes per annual period
Category 12: Screening, etc. of material	10,000,000 tonnes or more per annual period
Category 52: Electrical power generation	127.5 MW
Category 54: Sewage facility	400 cubic metres per day
Category 57: Used tyre storage (general)	5,000 tyres
Category 64: Class II putrescible landfill site	34,000 tonnes per annual period
Category 73: Bulk storage of chemicals, etc.	6,578 cubic metres in aggregate
Category 85: Sewage facility	24 cubic metres per day

This licence is granted to the licence holder, subject to the attached conditions, on 03 September 2025, by:

#### MANAGER, RESOURCE INDUSTRIES

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

# **Licence history**

Date	Reference number	Summary of changes	
12/08/2010	L5275/1972/11	Amendment to include:	
		Removal of collapsed groundwater monitoring bores (MB16 and MB11); and	
		Inclusion of dewatering discharge point at Joe's Crossing.	
15/05/2014	L5275/1972/12	Licence re-issue.	
29/04/2016	L5275/1972/12	Notice of amendment of Licence expiry dates to 27/05/2033.	
19/05/2016	L5275/1972/12	Amendment to include:	
		Construction and operation of a new putrescible landfill;	
		Operation of a new waste dump landfill;	
		Removal of Category 61;	
		Addition of Categories 12 and 73; and	
		Other administrative changes.	
15/12/2016	L5275/1972/12	Amendment Notice 1	
		Licence amendment to include:	
		Conditions relating to construction of the extended TSF;	
		Southern Cell;	
		Revised groundwater monitoring regime (i.e., sites and parameters);	
		Revised sampling frequency for pH at Joe's Crossing; and	
		Administrative changes.	
01/11/2017	L5275/1972/12	Amendment Notice 2	
		DWER initiated amendment included Special Waste Type 2 as a waste type authorised to be accepted and buried at the putrescible landfill in accordance with condition 12 of the Licence.	
09/03/2023	L5275/1972/12	Amendment to include:	
		Amalgamation of Licence with Notice of amendment of Licence expiry and Amendment Notices 1 and 2;	
		<ul> <li>Infrastructure that has been subject to commissioning, or no commissioning required under Works Approval W6591/2021/1;</li> </ul>	
		<ul> <li>Updated content under condition 30 (now condition 3), Table 3 (now Table 2) that relates to the Tailings Storage Facility (TSF) Southern Cell to expand storage capacity;</li> </ul>	
		Provision for the flexibility in the location of proposed additional landfill sites within the prescribed premises boundary that would meet specified design and management requirements; and	

Date	Reference number	Summary of changes	
		Administrative changes.	
14/11/2023	L5275/1972/12	Amendment to include:  Increase in the category 73 design capacity;	
		Operation of three temporary bulk refuelling facilities constructed under W6643/2021/1; and	
		Premises name change.	
05/06/2024	L5275/1972/12	Licence Amendment to include the following:	
		Category 54: Sewage Facility;	
		Increase the approved design capacity of category 64; and	
		Administrative changes.	
03/09/2025	L5275/1972/12	Licence Amendment to include the following:	
		<ul> <li>Add Tailings Storage Facility (TSF) TSF1N Cell Raise (approved and constructed under W6421/2020/1) to the licence to allow ongoing operations;</li> </ul>	
		<ul> <li>Add the Heavy Vehicle Refuelling Facility (HVRF) (approved and constructed under W6643/2021/1) to the licence to allow for ongoing operation and increase associated Category 73 limit from 6,578 cubic metres in aggregate to 7,653 cubic metres;</li> </ul>	
		<ul> <li>Removal of decommissioned temporary bulk refuelling facilities namely the Western Range (Qbirt) fuel facility 1 and the Western Range (CPB) fuel facility 2 from the licence;</li> </ul>	
		<ul> <li>Amendment to Condition 3, Table 2 operational requirements to capture altered TSF1N spigot arrangement (inclusion of wording to allow pipelines and spigots anywhere within or around the perimeter of the TSF); and</li> </ul>	
		Add category 57 to allow for the storage of up to 5000 tyres.	

## Interpretation

#### In this licence:

- (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 licence:
  - (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 licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

### Licence conditions

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

### Infrastructure and equipment

#### **Mobile Crushing and Screening Plant**

1. The licence holder must only operate the Mobile Crushing and Screening Plant(s) in accordance with the Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877).

#### **Site Infrastructure**

- 2. The licence holder must construct and/or install the infrastructure listed in Table 1, in accordance with;
  - (a) the corresponding design and construction requirement / installation requirement; and
  - (b) at the corresponding infrastructure location; and
  - (c) within the corresponding timeframe,

as set out in Table 1.

Table 1: Design and construction requirements

Site infrastructure and equipment	Design and construction requirement	Infrastructure location	
Subsequent Landfill Facility - Waste	Facility - Waste requirements:		
Dump/Backfilled Pit (Inert and Putrescible)	<ul> <li>Located more than 100 m from any permanent or perennial watercourse;</li> </ul>		
Class II Putrescible Landfill	<ul> <li>Must be located so that vertical distance between the waste and the highest seasonal and expected post mining ground water level is no less than 3 m;</li> </ul>	Schedule 1: Figure 8	
	<ul> <li>Signage erected which clearly defines what waste is accepted;</li> </ul>		
	Stormwater management structures (i.e. bunding) to divert surface water flows away from the landfill;		
	<ul> <li>A sump or bunding within the landfill to collect any surface water that has come into contact with waste;</li> </ul>		
	Putrescible landfill facilities must be fenced to an appropriate height, gated, and locked to minimise unauthorised access and windblown waste; and		
	<ul> <li>Landfill facilities must have a firebreak at least 3 m in width around the boundary.</li> </ul>		
	The design of the 'Class II Putrescible Landfill' to be in accordance with Schedule 1: Figure 8.		

- 3. The licence holder must not depart from the requirements specified in Condition 1 Table 1 except:
  - (a) where such departures are minor in nature and do not materially change or affect the infrastructure; or
  - (b) where such departure improves the functionality of the infrastructure and does not increase the risks to public health, public amenity, or the environment.

If condition 0(b) applies, then the licence holder must provide the CEO with a list of departures which are certified as complying with condition 2.

4. The licence holder must ensure that the site 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: Operational requirements** 

Site infrastructure and equipment	Operational requirement	Infrastructure location
Paraburdoo TSF	Tailings deposition of up to 30,000,000 tonnes per annual period;	Schedule 1, Figure 6
	Freeboard – 0.5 m above stormwater capacity elevation; and	
	<ul> <li>Stormwater capacity – estimated at 1% Annual Exceedance Probability (AEP) (1 in 100-year Annual Recurrence Interval (ARI)), 72 hour rainfall event.</li> </ul>	
	Main Embankment	Schedule 1,
	Main Embankment on the Northern Cell Raised to Relative Level (RL) 373m Australian Height Datum (AHD).	Figure 6
	Central Dividing Embankment	Schedule 1,
	<ul> <li>Central Dividing Embankment (North and South Cells) Raised to RL 373 m AHD.</li> </ul>	Figure 6
	Saddle Embankments	Schedule 1,
	Western Saddle Embankment Raised to RL 371 m AHD; and	Figure 6
	South Eastern Embankment Raised to RL 371 m AHD.	
	Decant Causeways	Schedule 1,
	Decant Causeway Northern Cell Raised to RL 373 m AHD; and	Figure 6
	<ul> <li>Decant Causeway Southern Cell Raised to RL 371 m AHD.</li> </ul>	
	Spillway Capacity	Not depicted
	Spillways installed to prevent overtopping	

Site infrastructure and equipment	Operational requirement	Infrastructure location
	Closure – 1:100-year ARI.	
	Tailings Deposition Pipeline	Not depicted
	355 to 400 mm High Density Polyethylene (HDPE) or HDPE steel lined delivery pipeline around or within the perimeter of the facility;	
	<ul> <li>Spigots spaced at no more than 80 m intervals around or within the perimeter of the facility;</li> <li>Fines disposal pumps and additional isolation valves around or within the perimeter of the facility;</li> <li>Pressure monitors at waste fines disposal</li> </ul>	
	<ul> <li>pumps;</li> <li>Droppers to be secured;</li> <li>Flowmeters installed for leak detection; and</li> <li>At least 2 sumps to contain spillages.</li> </ul>	
	Return Water Pipeline	Not depicted
	<ul> <li>Return water pipeline around or within the perimeter of the facility;</li> </ul>	
	Pump station to include the installation of flow meter and pressure transmitters; and	
	Return water sump to store return decant water, if required.	
Biomax WWTP and irrigation spray field (0.5 ha)	<ul> <li>No more than 24 m3 per day of effluent is to be discharged to the irrigation sprayfield area;</li> <li>Record volumes of treated waste produced;</li> </ul>	Schedule 1, Figure 7 and Coordinates in Schedule 2,
	<ul> <li>Operation and maintenance undertaken in accordance with manufacturer's requirements;</li> </ul>	Table 10
	<ul> <li>Maintain surface water management structures / bunding to ensure any spills are contained; and</li> </ul>	
	Spill response procedure is in place.	
Camp Wastewater Treatment Plant (WWTP), comprising a Moving Bed Biofilm Reactor (MBBR) with the following:	<ul> <li>Maintain volumetric flow meters on the WWTP inlet and outlet to the spray irrigation field;</li> <li>Maintain alarm system of warning beacons, as well as audible and visual pump alarms, which will be active in the event of:</li> </ul>	Schedule 1, Figure 7 and Coordinates in Schedule 2, Table 10
Influent screen	pump faults;	
<ul> <li>400 m³ balance tank</li> <li>180 m³ process</li> </ul>	high tank levels;	
tanks:  • Anoxic (De-	<ul><li>tank overflows; and</li><li>allow for manual operation if necessary;</li></ul>	
nitrification) and Aeration Tanks  30 m³ effluent tanks  150 m³ clarifier tanks	Sludge and screenings are contained within sealed tanks prior to removal by a licensed waste carrier for disposal to a licensed disposal facility;	

Site infrastructure and equipment	Operational requirement	Infrastructure location
<ul> <li>30 m³ filter feed tanks</li> <li>Primary and secondary settling tanks</li> <li>Air Blowers/Coarse bubble diffusers</li> <li>Spill containment bunding</li> </ul>	<ul> <li>Maintain spill containment bunding around WWTP;</li> <li>Maintain all sewage conveyance, storage and treatment infrastructure to ensure stormwater does not enter the sewage treatment system and sewage and treated wastewater storage infrastructure; and</li> <li>Store chemicals, including sodium hypochlorite, separately within an above ground vessel located on a hardstand enclosed by bunds with a holding capacity of 110% of the total vessel/s contents.</li> </ul>	
Camp WWTP Irrigation sprayfield (10 ha)	<ul> <li>No more than 400 m³ of treated effluent may be discharged to the designated irrigation sprayfield area;</li> <li>Irrigation area must maintain a 5 m spray drift buffer from the edge of the sprinkler radius;</li> <li>No blended effluent is permitted to run off or discharge beyond the irrigation spray field;</li> <li>Ensure that no ponding or pooling of treated wastewater occurs; and</li> <li>Irrigation area must be managed to prevent ponding and pooling of effluent in the ground surface of the irrigation discharge area.</li> </ul>	Schedule 1, Figure 7 and Coordinates in Schedule 2, Table 10
Waste Dump landfill facility	<ul> <li>Landfill facilities to have a combined maximum capacity of 34,000 tonnes per annual period;</li> <li>Waste disposed to Waste Dump landfill are to be recorded;</li> <li>Waste Dump landfill will accept and bury only the following types of waste: <ul> <li>Inert Waste Type 1; and</li> <li>Inert Waste Type 2 (tyres);</li> <li>as defined in the Landfill Definitions;</li> </ul> </li> <li>Waste will be covered on an ad-hoc basis when required, to at least 200 mm at final landform design.</li> <li>Tyre Disposal</li> <li>Tyres must be disposed of by burial in batches of no more than 1000 whole tyres separated from each other by at least 100 mm of soil;</li> <li>Tyres must be buried under a final soil cover of not less than 500 mm; and</li> <li>Tyres must be baled (not shredded) prior to disposal in the landfill.</li> </ul>	Schedule 1, Figure 4

Site infrastructure and equipment	Operational requirement	Infrastructure location
Class II Putrescible landfill facility Putrescible Landfill Facility	<ul> <li>Landfill facilities to have a combined maximum capacity of 34,000 tonnes per annual period; and</li> <li>Waste disposed to landfill facilities are to be</li> </ul>	Schedule 1, Figure 4
Class II Inert Construction Landfill Facility  Waste Dump Inert Landfill facility  Subsequent Landfill Facility - Waste Dump/Backfilled Pit (Inert and Putrescible)	recorded.  Putrescible landfill facilities  Putrescible landfill facilities will accept and bury only the following types of waste:  Clean Fill;  Inert Waste Type 1;  Putrescible Waste;  Special Waste Type 1; and  Special Waste Type 2;  as defined in the Landfill Definitions  Fencing surrounding the perimeter of putrescible landfill facilities must be regularly inspected for damage and cleared of waste;	
	<ul> <li>Tipping area of putrescible landfill is not to be greater than 30 m in length and 2 m above the ground level height;</li> <li>Special Waste Type 1 &amp; 2 are disposed of within a dedicated trench, the location of disposed wastes is recorded, and the waste is immediately covered with a minimum depth of 300 mm of inert and incombustible material; and</li> <li>Putrescible waste is to be covered weekly, with at least 200 mm so that no waste is left exposed (including at final landform design).</li> </ul>	
	<ul> <li>Inert landfill facilities</li> <li>Inert landfill facilities will accept and bury only the following types of waste:         <ul> <li>Inert Waste Type 1;</li> <li>Inert Waste Type 2; and</li> <li>Putrescible Waste (wooden pallets and wooden packaging only);</li> <li>as defined in the Landfill Definitions</li> </ul> </li> <li>Waste in inert landfill facilities will be covered on an ad-hoc basis when required, to at least 200mm at final landform design; and</li> <li>Waste Dump Back-filled landfill facilities accept both inert and putrescible waste.</li> </ul>	

Site infrastructure and equipment	Operational requirement	Infrastructure location
Heavy Vehicle Refuelling Facility (HVRF)	<ul> <li>Vehicle refuelling to occur over concrete hardstand;</li> <li>Potentially contaminated surface water to be collected in sumps and directed to the oily water collection and treatment system;</li> <li>Potentially contaminated surface water to be treated to achieve a total recoverable hydrocarbon concentration below 30 mg/L; and</li> <li>Spill response equipment available for use.</li> </ul>	Schedule 1, Figure 1
Tyre storage	External tyre storage areas will be level, clear of	

- 5. The licence holder shall collect at least 10 individual representative tailings samples as part of the upstream wall raise of TSF1 Northern Cell, including pore water, to determine the likely behavior of elements under a range of leaching conditions, which may include, but not be limited to:
  - (a) Testing using the LEAF Test Method 1313 pH-dependent leaching test (United States Environmental Protection Agency, 2017);
  - (b) Geotechnical characterisation of tailings including: particle size distribution, volume of solids, settling test (drained and undrained), air drying test and hydraulic conductivity of the same tailings tested in (a); and
  - (c) Testing for the contaminants listed in Table 3.

All test results shall be collated and provided in a report to the CEO no later than 60 days after the sample results become available.

**Table 3: Tailings characterisation parameters** 

Stream	Contaminants		
Tailings leachate	Ag - Silver	Fe – Iron	Sb – Antimony
and pore water	Al – Aluminium	Hg – Mercury	Se – Selenium
(mg/L)	As – Arsenic	K – Potassium	Si - Silicon
(Hig/L)	Ba – Barium	Mg – Magnesium	Sn - Tin
	B - Boron	Mn - Manganese	Sr - Strontium
	C total – Carbon total	Mo – Molybdenum	Zn – Zinc
	C carbonate – Carbon	Na – Sodium	TDS (total dissolved solids)
	carbonate		
	Ca – Calcium	Ni – Nickel	Total Nitrogen
	Cd – Cadmium	P – Phosphorus	Sulfur total
	Co - Cobalt	Pb – Lead	SO <sub>4</sub> -2 – Sulphate
	Cr – Chromium	Cu – Copper	Acrylamide

Stream	Contaminants
Tailings leachate and pore water	рН
(pH units)	

#### **Waste Management from Ancillary Operations**

- **6.** The licence holder must utilise and maintain, protective bunding, skimmers, silt traps, neutralisation pits, fuel, and oil traps, drains and sealed collection sumps around the process plant, maintenance workshops, laboratory, and power generation areas to enable recovery of spillages and protection of surrounding soils and groundwater.
- 7. The licence holder must utilise measures or agents such as quick break detergents, to prevent oil-water emulsions from passing through the separator systems.
- **8.** The licence holder must as soon as practicable recover, or remove and dispose of, any liquid resulting from spills or leaks of chemicals including fuel, oil, or other hydrocarbons, from inside or outside the low permeability compound(s).

### **Tailings Storage Facility**

- **9.** The licence holder must maintain the interception drain immediately downstream of the main storage dam embankment, which must be used to collect and recover any liquid matter resulting from seepage of the main embankments.
- **10.** The licence holder must ensure that at least 500 mm of total freeboard is maintained at the TSF at all times.

#### **Putrescible Landfill**

- **11.** The licence holder must submit a compliance document to the CEO, following the construction of the Paraburdoo putrescible landfill proposed / subsequent as per condition 2, Table 1 and prior to operation of the same.
- **12.** The compliance document must:
  - (a) certify that the works were constructed in accordance with the conditions of the licence; and
  - (b) be signed by a person authorised to represent the licence holder and contain the printed name and position of that person within the company.

### **Emissions and discharges**

#### **Stormwater Management**

- **13.** The licence holder must install and maintain mechanisms to ensure that stormwater from the following areas, is diverted to facilities for treatment prior to disposal, reuse, or discharge:
  - (a) Process plants;
  - (b) Washdown bays;
  - (c) Permanent Refuelling areas; and
  - (d) Mechanical workshops.

#### **Surface Water - Discharge Outfall**

14. The licence holder must ensure that the concentration of total recoverable hydrocarbons in waters discharged from the premises does not exceed 30 mg/L.

#### **Authorised discharge points**

**15.** During operations, the licence holder must ensure that the emission specified in Table 4, is discharged only from the corresponding discharge points and only at the corresponding discharged point location.

**Table 4: Authorised discharge points** 

	Emission	Discharge point	Discharge point location
1.	Biomax WWTP treated effluent	Biomax WWTP irrigation sprayfield	Schedule 1, Figure 7 and Coordinates in Schedule 2, Table 9
2.	Camp WWTP Treated Effluent	Camp WWTP Sprayfield Irrigation Area	Schedule 1, Figure 7 and Coordinates in Schedule 2, Table 10
3.	Landfill waste	Waste Dump Back filled Landfill facility (inert)	Schedule 1, Figure 4
		Waste Dump Back-filled Landfill facility (inert and putrescible)	
		Putrescible Landfill facilities (including proposed)	
4.	Exhaust gases	GTG-1	Schedule 1, Figure 5
	from the power station	GTG-2	
		GTG-3	

#### **Emission limits**

**16.** The licence holder must ensure that emissions from the discharge point listed in Table 5 for the corresponding parameter do not exceed the corresponding limit when monitored in accordance with condition 19.

Table 5: Emission and discharge limits

Discharge Point	Parameter	Reportable limit (including units)	
Camp WWTP Sprayfield	рН	6.5 – 8.5	
(Irrigation area)	Total Suspended Solids	<30mg/L	
	Total Phosphorus	<8mg/L	
	Total Nitrogen	<30mg/L	
Biochemical Oxygen Demand (BOD <sub>5</sub> )		<20mg/L	
	Thermotolerant coliforms	<1000cfu/100mL	

### **Monitoring**

#### Water - Monitoring

- **17.** The licence holder must, on a monthly basis, measure and record in cubic meters, the cumulative volumes of waters discharged from the following discharge points:
  - (a) Flow meter to irrigation spray;
  - (b) Joe's Crossing;
  - (c) Primary plant; and
  - (d) Light vehicle washdown.

These results must be provided in the Annual Environmental Report.

18. The licence holder must take representative water samples from the monitoring sites shown in column 1 of Table 6, at the frequencies stated in column 2 of Table 6 and have analysed for the parameters listed in column 3 of Table 6, at locations listed in column 4 of Table 6, and present this information in the Annual Environmental Report, including a comparison against previous years' data.

Table 6: Water monitoring schedule

Column 1	Column 2	olumn 2 Column 3	
Monitoring sites	Sampling frequency	Parameters to be measured	Monitoring location
Surface Water Discharg	e Sites		
<ul> <li>Primary plant discharge; and</li> <li>Light vehicle washdown</li> </ul>	Quarterly when discharging	pH (pH units) <sup>1</sup> Total Dissolved Solids (mg/L) Total Suspended Solids (mg/L) Total Recoverable Hydrocarbons (mg/L) Chemical Oxygen Demand (mg/L) Surfactants mg/L) Metals (mg/L) - Pb, Cu, Fe, Mn, Mo, Zn, As, Hg, Cd; Cr	Schedule 1, Figure 2
Groundwater Sites			
Bioremediation area MB10, MB13, MB15	Annually	pH (pH units) <sup>1</sup> Total Dissolved Solids (mg/L) Total Recoverable Hydrocarbons (mg/L) Metals and metalloids (mg/L) - Pb, Cu, Fe, Mn, Mo, Zn, As, Hg, Cd, Cr	Schedule 1, Figure 3
Tailings Area PTD04D, PTD05D, PTD06D, PTD07D, PTD08D, PTD09D, PTD10, PTD11, PTD12, PTD21, PTD26, MB18TSF0001, and MB18TSF0002		pH (pH units) <sup>1</sup> Electrical conductivity <sup>1</sup> Total Dissolved Solids (mg/L) Major ions (mg/L) – Na, K, Ca, Mg, Cl, CO3 HCO3, SO4, NO3. Elements (mg/L) – Pb, Cu, Fe, Mn, Mo, Zn, As, Hg, Cd, Cr, Al, B, Ag, Cd, Ni, Se, Co, Tl	Schedule 1, Figure 3
New Landfill Area MB3, MB15PAFL001, MB15PAFL002, MB15PAFL003,		pH (pH units) <sup>1</sup> Total Dissolved Solids (mg/L) Total Suspended Solids (mg/L) Total Recoverable Hydrocarbons (mg/L)	Schedule 1, Figure 3

Column 1	Column 2	Column 3	Column 4
MB15PAFL004. MB16PAFL001, MB16PAFL002, and MB16PAFL003		Chemical Oxygen Demand (mg/L) Surfactants (mg/L) Metals and metalloids (mg/L) – Pb, Cu, Fe, Mn, Mo, Zn, As, Hg, Cd, Cr	
Old Landfill Area MB7, MB8, MB9		pH (pH units) <sup>1</sup> Total Dissolved Solids (mg/L) Total Suspended Solids (mg/L) Total Recoverable Hydrocarbons (mg/L) Chemical Oxygen Demand (mg/L) Surfactants (mg/L) Metals and metalloids (mg/L) – Pb, Cu, Fe, Mn, Mo, Zn, As, Hg, Cd, Cr	Schedule 1, Figure 3
4 East Pit Dewatering			
Discharge Point Joe's Crossing (Seven Mile Creek)	Quarterly when discharging	pH (pH units) <sup>1</sup> Total Dissolved Solids (mg/L) Total Suspended Solids (mg/L) Total Recoverable Hydrocarbons (mg/L) Chemical Oxygen Demand (mg/L) Major ions (mg/L) – Na, K, Ca, Mg, Cl, CO <sub>3</sub> , HCO <sub>3</sub> , SO <sub>4</sub> , NO <sub>3</sub> Metals and metalloids (mg/L) - Al, B, Fe, Cu, Zn, Ag, As, Cr, Pb, Cd, Hg, Ni, Sn, Mn, Mo	Schedule 1, Figure 2

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

- **19.** The licence holder must monitor emissions:
  - (a) from each discharge point;
  - (b) at the corresponding monitoring location;
  - (c) for the corresponding parameter;
  - (d) at the corresponding frequency;
  - (e) for the corresponding averaging period; and
  - (f) in the corresponding unit.

as set out in Table 7.

Table 7: Emissions and discharge monitoring

Discharge Point	Monitoring Location	Parameter	Frequency	Averaging Period	Unit
Biomax WWTP irrigation sprayfield	Biomax WWTP outlet flow meter - Coordinates in Schedule 2, Table 9	Cumulative flow volume discharged to the irrigation spray field <sup>1</sup>	Continuous line	Daily	m³/day
Camp WWTP irrigation	Camp WWTP outlet - Coordinates in				

Discharge Point	Monitoring Location	Parameter	Frequency	Averaging Period	Unit
sprayfield	Schedule 2, Table 9				
Biomax	Biomax	pH	Quarterly	N/A	pH units <sup>1</sup>
WWTP irrigation sprayfield	WWTP outlet flow meter - Coordinates in	Total Suspended Solids	Spot	Spot Sample	mg/L
)	Schedule 2, Table 9	Total Phosphorus		Sample	mg/L
	Tubic o	Total Nitrogen			mg/L
		Biochemical Oxygen Demand (BOD <sub>5</sub> )			mg/L
		Thermotolerant coliforms			cfu/100mL
Camp	Camp WWTP	pH	Quarterly	N/A	pH units <sup>1</sup>
WWTP irrigation sprayfield	outlet - Coordinates in Schedule 2, Table 9	Total Suspended Solids		Spot Sample	mg/L
		Total Phosphorus			mg/L
		Total Nitrogen			mg/L
		Biochemical Oxygen Demand (BOD₅)			mg/L
		Thermotolerant coliforms			cfu/100mL

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

- 20. The licence holder must compare the results from the monitoring of discharge water required by condition 18 for Joe's Crossing (Seven Mile Creek) against the appropriate ANZECC 2000 water quality trigger values and present this information, in the Annual Environmental Report.
- 21. The licence holder must undertake monitoring of the water balance for Paraburdoo TSF each monthly period, and (as a minimum) record the following information:
  - (a) site rainfall;
  - (b) evaporation rate;
  - (c) decant water recovery volumes;
  - (d) volume of tailings deposited; and
  - (e) estimate of seepage losses.

### **Records and reporting**

### **Reporting Conditions**

- **22.** The licence holder must collect all water samples required by condition 18 and 19 in accordance with the relevant parts of Australian Standard *AS/NZS 5667.1* and *AS/NZS 5667.11*.
- 23. The licence holder must ensure that all parameters requiring laboratory analyses pursuant to condition 18 and 19 are conducted by an organisation with NATA accreditation for the specified parameters in accordance with the current Standard Methods for Examination of Water and Wastewater APHA-AWWA-WEF.
- 24. The licence holder must provide to the CEO, by 30 April each year, a copy of an Annual Environmental Report containing the monitoring results and data collected as a requirement of any condition and set out in Table 8 of this licence during the period 1 January and ending on 31 December in that year.

**Table 8: Annual Environmental Report** 

Conditions	Requirement
2, 17, 18, 19, 20, 1, 22, 23	<ul> <li>a) monthly cumulative volumes (in m³ or kL) of treated wastewater applied to the irrigation sprayfield presented in table format;</li> </ul>
	b) all monitoring data in tabulated and graphical form including the sampling date;
	<ul> <li>c) an assessment and interpretation of the data, including comparison to historical trends, loading limits, exceeded levels in parameters;</li> </ul>
	d) copies of laboratory sample analysis reports;
	e) landfill facility figures to be updated when subsequent landfill facilities have been constructed (including previous locations); and
	f) record of the total volumes of waste disposed of in all landfill facilities.

- **25.** The licence holder must:
  - (a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
  - (b) prepare and submit to the CEO by 30 April each year an Annual Audit Compliance Report in the approved form.
- **26.** The licence holder must record the following information in relation to complaints received by the licence 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 licence holder to investigate or respond to any complaint.
- **27.** The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:
  - (a) the calculation of fees payable in respect of this licence;

- (b) the works conducted in accordance with condition 2 of this licence;
- (c) any maintenance of infrastructure that is performed in the course of complying with condition 0 of this licence; and
- (d) complaints received under condition 1 of this licence.
- **28.** The books specified under condition 27 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 licence holder for the duration of the licence; and
  - (d) be available to be produced to an inspector or the CEO as required.

## **Definitions**

In this licence, the terms in Table 9 have the meanings defined.

**Table 9: Definitions** 

Term	Definition
ACN	Australian Company Number.
Act	means the Environmental Protection Act 1986.
Annual Audit Compliance Report (AACR)	means a report in a format approved by the CEO as presented by the licence holder or as specified by the CEO from time to time and published on the Department's website.
annual period	means the inclusive period from 1 January until 31 December in the same year.
ANZECC 2000	means the most recent version and relevant parts of the Australian and New Zealand Environment Conservation Council guidelines for fresh and marine water quality.
AS/NZS 5667.1	means the Australian Standard AS/NS 5667.1 Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samplings.
AS/NZS 5667.11	means the Australian Standard AS/NS 5667.11 Water Quality – Sampling – Guidance on sampling of groundwaters.
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department.
	"submit to / notify the CEO" (or similar), means either:
	Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919
	or:
	info@dwer.wa.gov.au
cfu/100mL	means colony forming units per 100 millilitres.
Department	means the department established under section 35 of the Public Sector Management Act 1994 (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
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.
EP Act	Environmental Protection Act 1986 (WA).
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.

Term	Definition
Guidance Note: GN02 Bulk Storage of Rubber Tyres Including Shredded and Crumbed Tyres	means the document titled <i>Guidance Note: GN02 Bulk Storage of Rubber Tyres Including Shredded and Crumbed Tyres</i> , published by the Western Australian Department of Fire and Emergency Services
Inert Waste Type 1	has the meaning defined in Landfill Definitions.
Inert Waste Type 2	has the meaning defined in Landfill Definitions.
Landfill Definitions	means the document titled 'Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment and Conservation as amended from time to time
licence	means this Licence numbered L5275/1972/12 and issued under the Act.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
m	means metres.
mg/L	means milligrams per litre.
mm	means millimetres.
NATA	means National Association of Testing Authorities.
NATA accredited	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.
Putrescible	has the meaning defined in Landfill Definitions.
Special Waste Type 1	has the meaning defined in Landfill Definitions.
Special Waste Type 2	has the meaning defined in Landfill Definitions.
Standard Methods for Examination of Water and Wastewater-APHA- AWWA-WEF	means the best current practice of American water analysts developed by the American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF).
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map(s) in Schedule 1 to this licence.
prescribed premises	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.

### **END OF CONDITIONS**

# **Schedule 1: Maps**

## **Premises map**

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

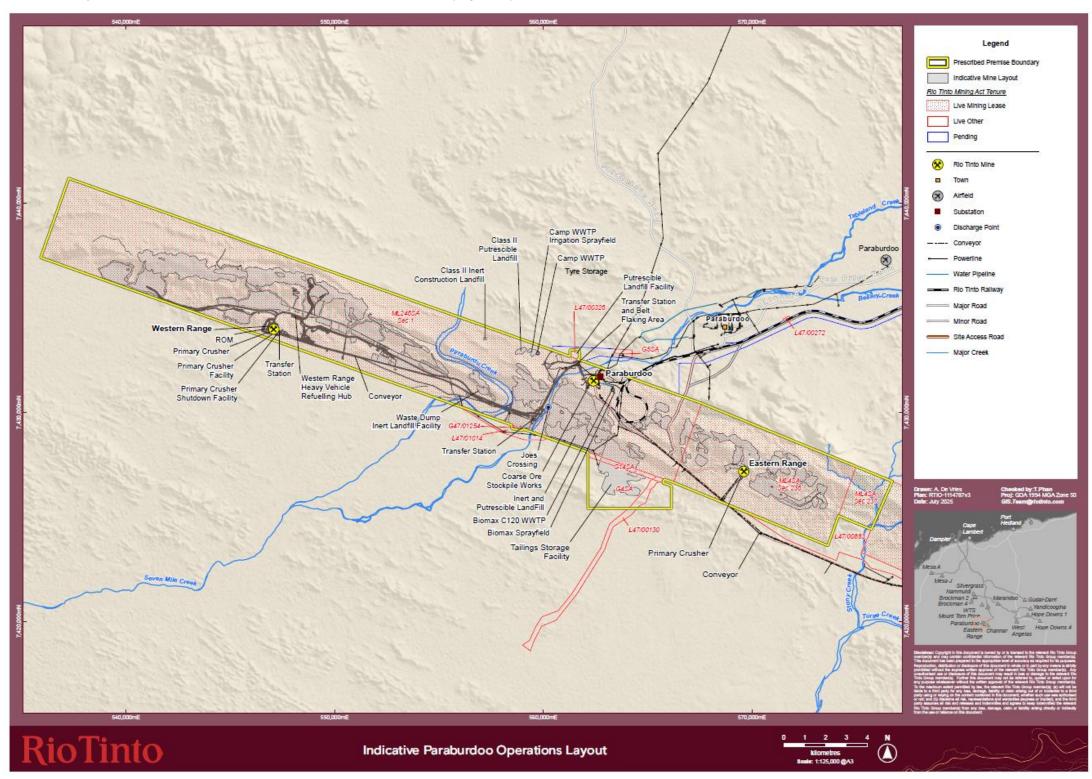


Figure 1: Map of the boundary of the prescribed premises

## **Paraburdoo Surface Water Monitoring Points**

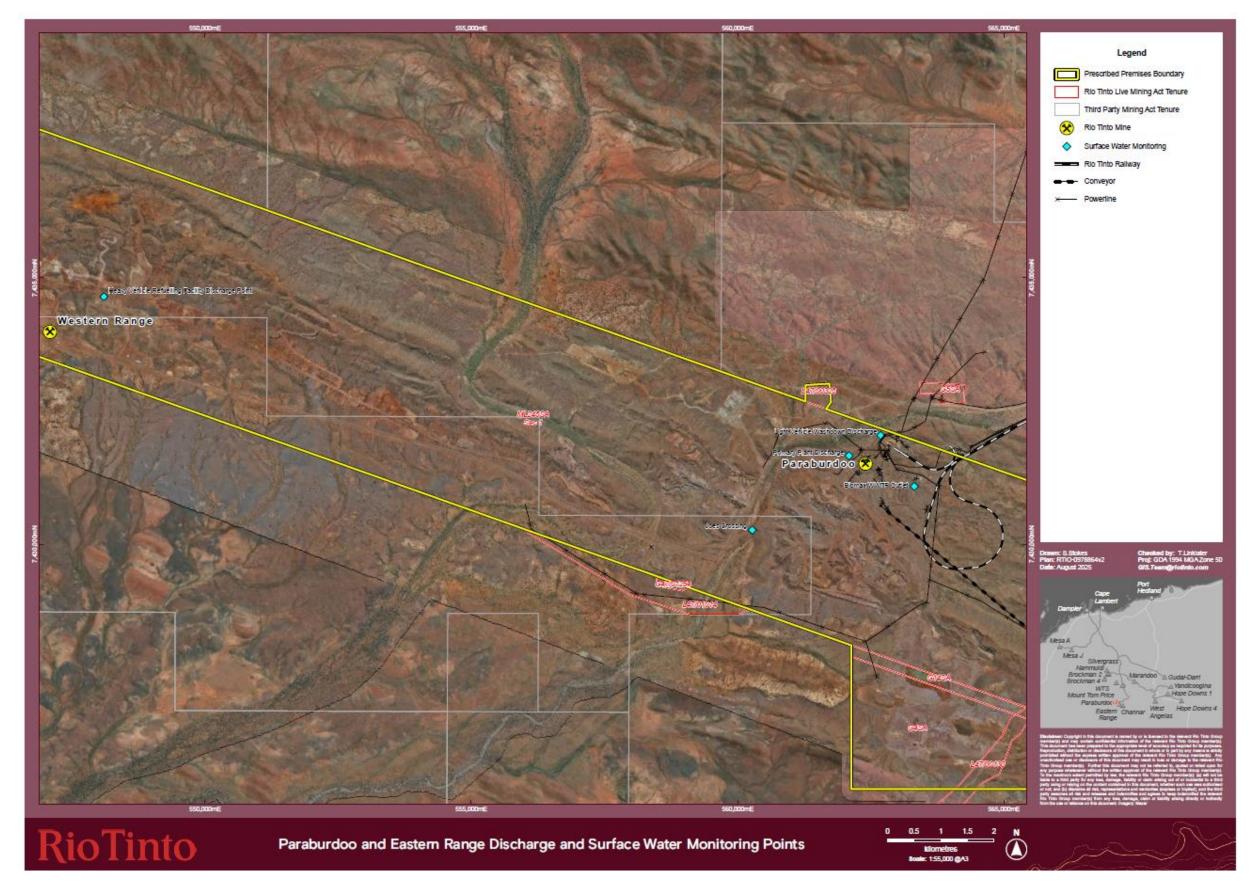


Figure 2: Map of the Discharge and Surface Water Monitoring Points

## Location of Monitoring Bores Around Paraburdoo Landfill, Bioremediation Facility and Tailings Storage Facility

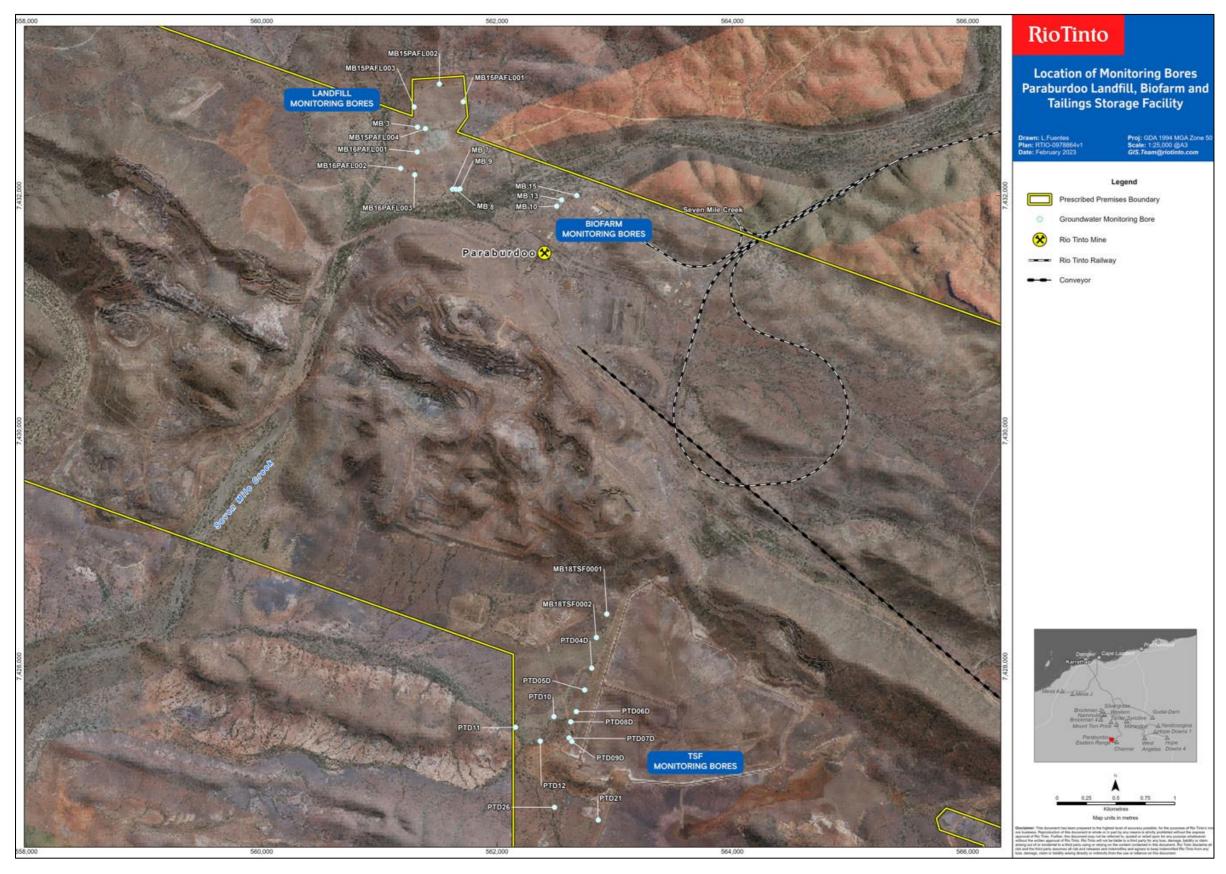


Figure 3: Map of the Groundwater Monitoring Points

### Paraburdoo Landfill Areas

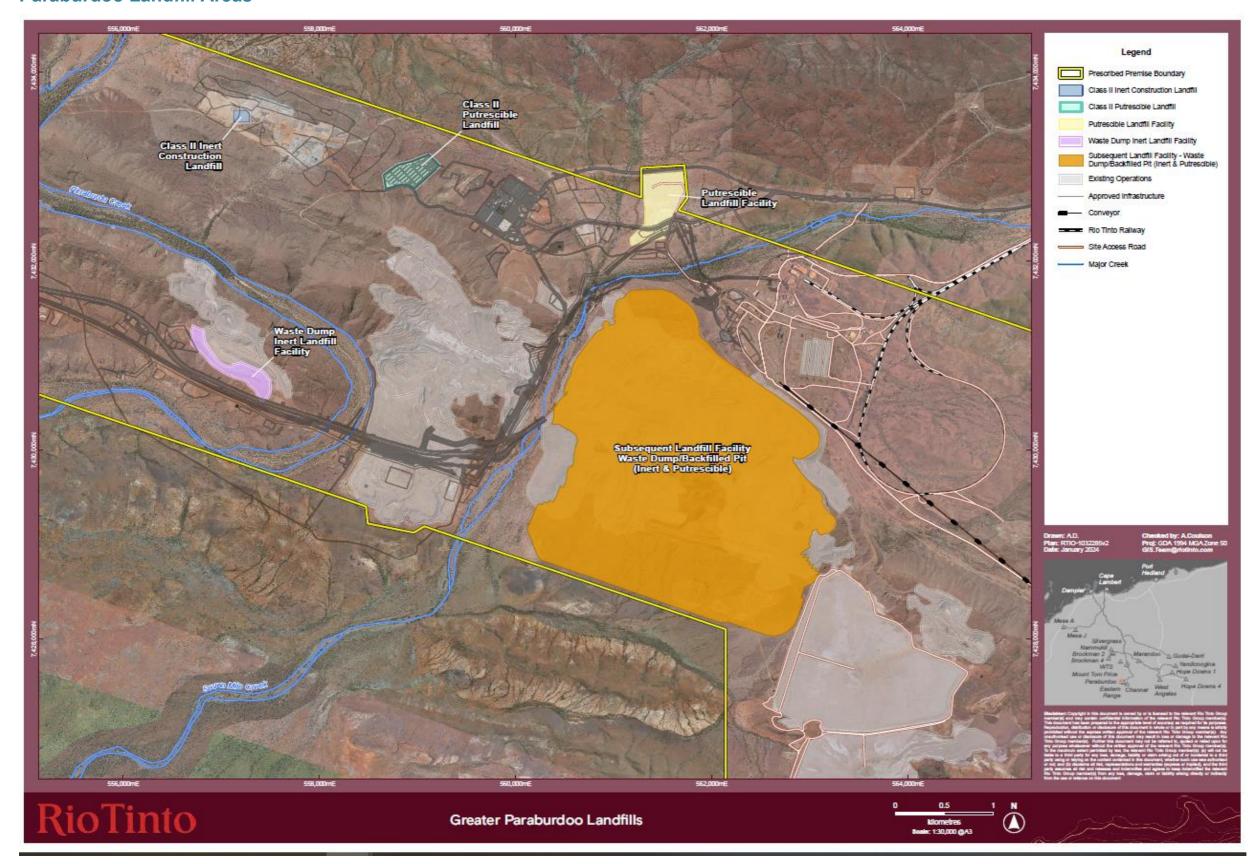


Figure 4: Map of the landfill facilities

## **Paraburdoo Power Stations and Air Emission Points**



Figure 5: Map of the power station and stack/emission points

## **Paraburdoo Tailings Storage Facility Embankments**



Figure 6: Map of the Paraburdoo Tailings Storage Facility

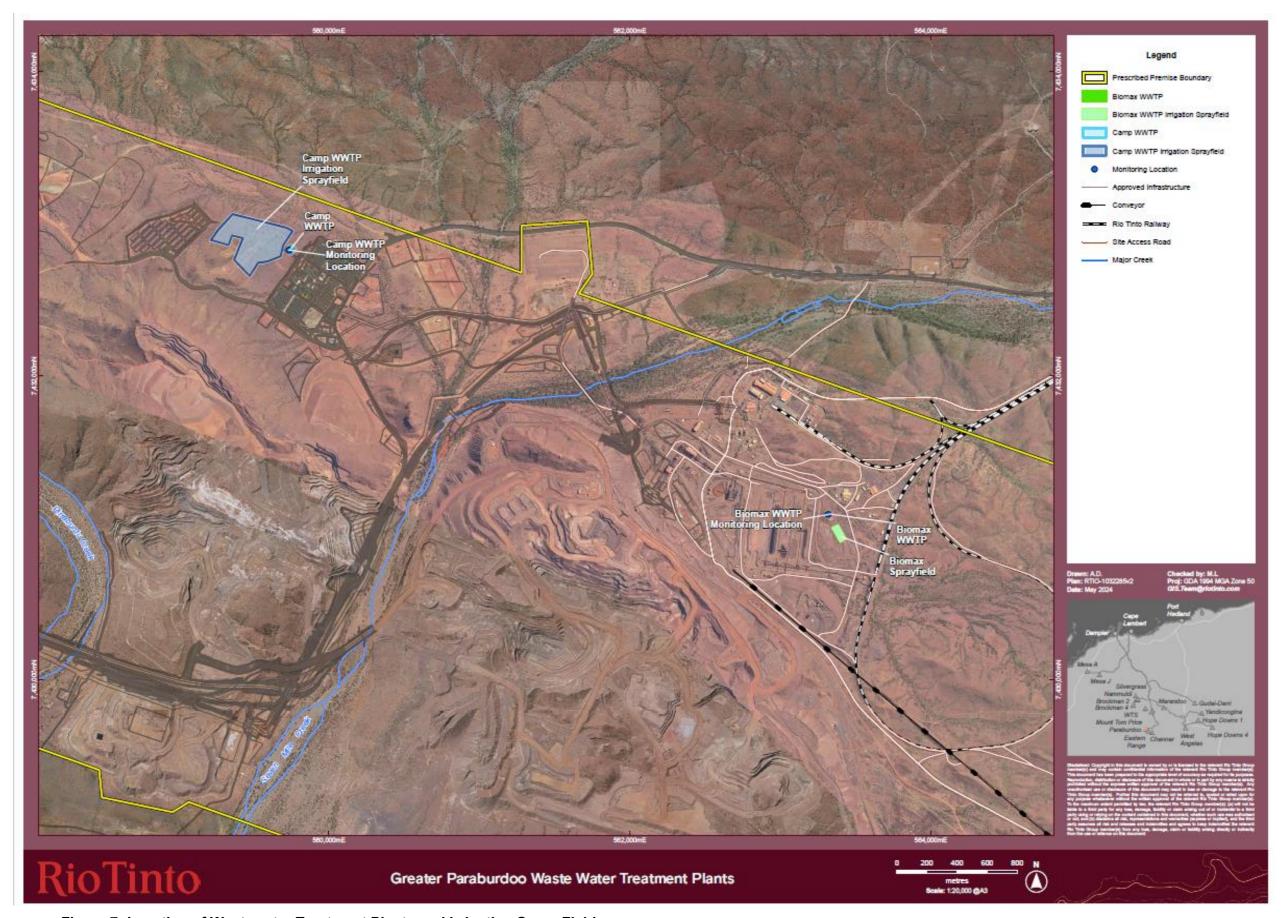


Figure 7: Location of Wastewater Treatment Plants and Irrigation Spray Fields

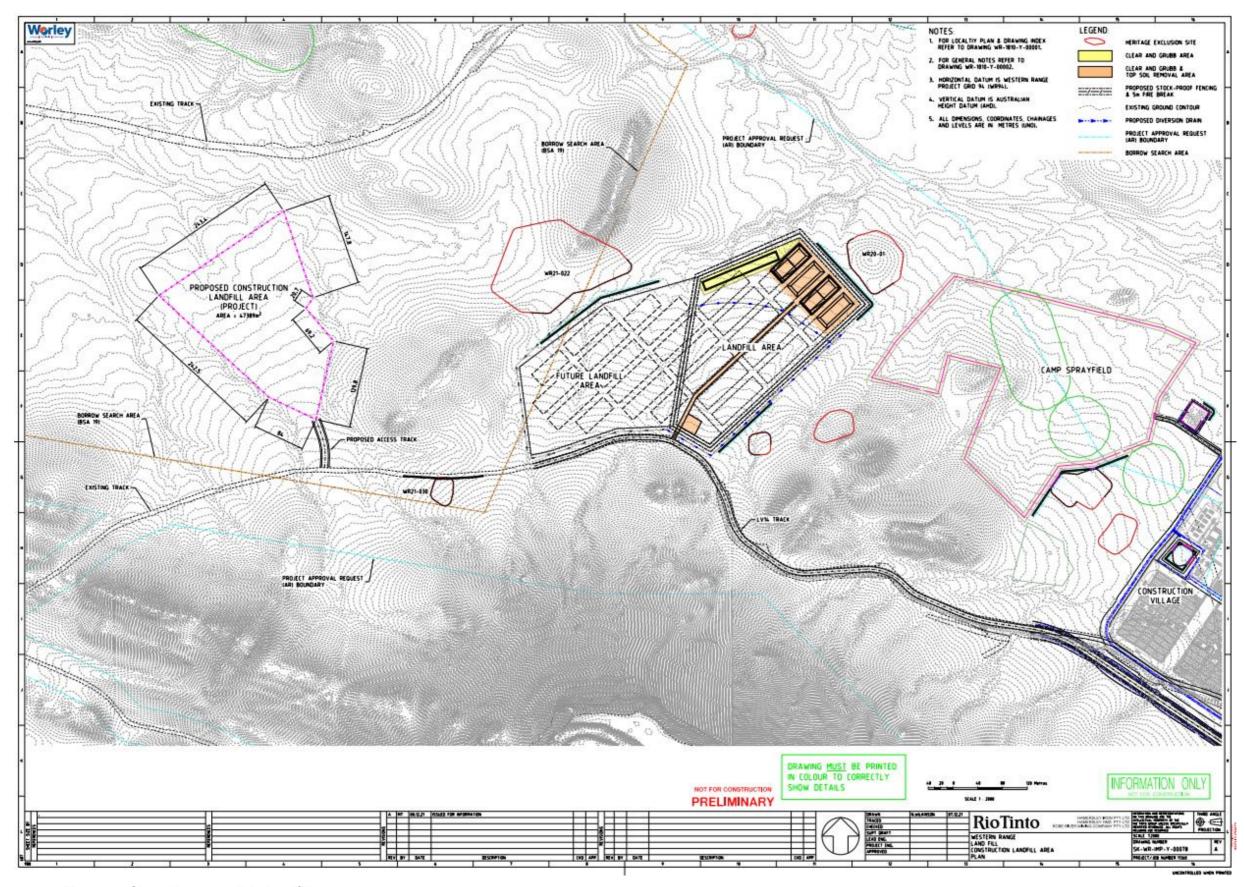


Figure 8: Class II putrescible landfill

## Schedule 2: Infrastructure coordinates.

The coordinates of the infrastructure proposed, and the monitoring location are shown below (Table 10).

Table 10: Infrastructure boundary coordinates and monitoring locations

Corner	Easting (m)	Northing (m)		
Camp WWTP outlet flow meter and effluent discharge monitoring location				
1	559733.83	7432825.91		
Camp WWTP irrigation spra	yfield boundary			
1	559360.99	7433062.71		
2	559759.68	7432950.71		
3	559474.56	7432654.95		
4	559369.97	7432760.96		
5	559334.00	7432858.10		
6	5559334.00	7432891.40		
Biomax WWTP outlet flow	meter and effluent discharge	monitoring location		
1	563327.37	7431071.84		
Biomax WWTP irrigation sprayfield boundary				
1	563396.28	7430912.41		
2	563426.87	7430928.91		
3	563378.98	7431007.00		
4	563345.97	7430992.91		

All coordinates are provided using map projection MGA 94 Zone 50